



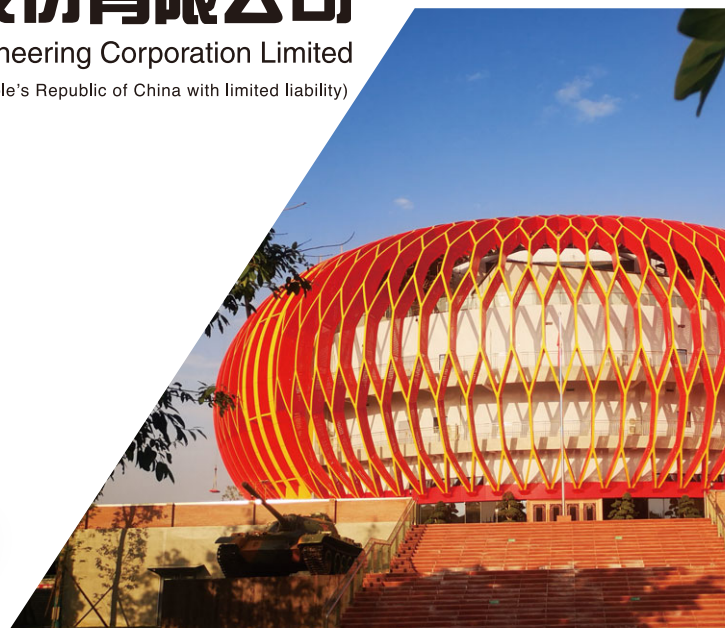
中鋁國際工程股份有限公司

China Aluminum International Engineering Corporation Limited

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

Stock Code: 2068

2021 ANNUAL REPORT



IMPORTANT NOTES

- I. The Board of Directors, Board of Supervisors, Directors, Supervisors and senior management of the Company guarantee that the contents of the Annual Report are truthful, accurate and complete, free from any false statement, misleading representation or major omission, and are legally liable therefore on a several and joint basis.
- II. Entire Directors of the Company are present at the meeting of Board of Directors.
- III. WUYIGE Certified Public Accountants LLP issued a standard Auditor's Report without qualified opinion for the Company.
- IV. LI Yihua, the Company's principal, ZHANG Jian, the accounting principal, and ZHANG Xiuyin, the accounting function's principal (the person in charge of the accounting function) undertake that: the financial report in this Annual Report is truthful, accurate and complete.
- V. Profit distribution plan or reserve capitalization plan adopted at the resolution of the Board of Directors.

As audited by WUYIGE Certified Public Accountants LLP, the 2021 consolidated financial statements of the Company show that net profit attributable to shareholders of the listed company was RMB-950,129,673.17. As of 31 December 2021, undistributed profit of the parent company was RMB-51,199,827.53. In order to ensure the continuous and stable operation of the Company and after taking into account of the operating plans and capital needs of the Company in 2022, the proposal for profit distribution in 2021 is that there will be no cash dividend distribution, nor will the capital reserves be capitalized or other forms of distribution.

VI. Forward-looking Risk Statements

☒ Applicable ☐ Not applicable

This Report contains some predictive statements based on subjective assumptions and judgments about future policies and economic trends. Subject to many variable factors, actual results or trends may deviate from these predictive statements.

Forward-looking statements such as future plans mentioned in this Report do not constitute the Company's substantive undertakings to investors. Investors should be aware of investment risks.



IMPORTANT NOTES

VII. Any Funds Occupied by the Controlling Shareholder or its Related Parties for Non-operating Purpose?

None.

VIII. Any Guarantee Provided for Any Third Party in Violation of Required Decision Procedures?

None.

IX. Is it possible that more than half of the Directors could not guarantee the authenticity, accuracy and completeness of the annual report disclosed by the Company?

No.

X. Material Risk Disclosure

In 2022, the Company may mainly faces personnel health risk (COVID-19 risk), market change and market competition risks, debt risk, cash flow risk and operational benefit risk. For details, please refer to “VI. Discussion and Analysis of Future Development of the Company – (IV) Potential Risks” under Section 3 “Management Discussion and Analysis (Directors’ Report)” of this Report. Investor attention is drawn thereto.

XI. Others

☒ Applicable ☐ Not applicable

For the purpose of this Report, all amounts are expressed in RMB unless otherwise specified.

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SECTION 1 DEFINITIONS

DEFINITIONS

For the purpose of this report, unless the context otherwise requires, the following terms have the following meanings:

Definition of Common Terms

“the Company”, “Company”, “Chalieco”	:	China Aluminum International Engineering Corporation Limited (中鋁國際工程股份有限公司)
“Group”	:	the Company and its subsidiaries
“Chinalco”	:	Aluminum Corporation of China (中國鋁業集團有限公司), our controlling shareholder
“Luoyang Institute”	:	Luoyang Engineering & Research Institute for Nonferrous Metals Processing (洛陽有色金屬加工設計研究院有限公司), one of our promoters and shareholders
“State Council”	:	the State Council of the People’s Republic of China
“Ministry of Finance”	:	the Ministry of Finance of the PRC
“SASAC”	:	the State-owned Assets Supervision and Administration Commission of the State Council
“CSRC”	:	the China Securities Regulatory Commission
“SSE”	:	the Shanghai Stock Exchange
“HKEX”	:	the Stock Exchange of Hong Kong Limited
“SSE Listing Rules”	:	the Rules Governing the Listing of Stocks on Shanghai Stock Exchange
“HKEX Listing Rules”	:	the Rules Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited
“IAS”	:	the International Accounting Standards and their interpretation
“Board of Directors”	:	the board of directors of the Company
“Board of Supervisors”	:	the board of supervisors of the Company
“Audit Committee”	:	the audit committee under the Board of Directors
“Remuneration Committee”	:	the remuneration committee under the Board of Directors
“Risk Management Committee”	:	the risk management committee under the Board of Directors
“Strategy Committee”	:	the strategy committee under the Board of Directors
“Nomination Committee”	:	the nomination committee under the Board of Directors
“Chalco”	:	Aluminum Corporation of China Limited (中國鋁業股份有限公司), listed on New York Stock Exchange (stock code: ACH), SSE (stock code: 601600) and HKEX (stock code: 2600), a subsidiary of Chinalco
“Chinalco Finance”	:	Chinalco Finance Company Limited (中鋁財務有限責任公司)
“SAMI”	:	Shenyang Aluminum & Magnesium Engineering & Research Institute Co., Ltd. (瀋陽鋁鎂設計研究院有限公司), a wholly-owned subsidiary of the Company
“GAMI”	:	Guiyang Aluminum & Magnesium Design Institute Co., Ltd. (貴陽鋁鎂設計研究院有限公司), a wholly owned subsidiary of the Company

SECTION 1 DEFINITIONS

“CINF”	:	Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy (長沙有色冶金設計研究院有限公司), a wholly-owned subsidiary of the Company
“CNPT”	:	China Nonferrous Metals Processing Technology Co., Ltd. (中色科技股份有限公司), a subsidiary owned as to 73.5% by the Company
“Changkan Institute”	:	China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd. (中國有色金屬長沙勘察設計研究院有限公司), a wholly-owned subsidiary of our Company
“Kunming Survey and Design Institute”	:	Kunming Survey and Design Institute Co., Ltd. of China Nonferrous Metals Industry (中國有色金屬昆明勘察設計研究院有限公司), a wholly-owned subsidiary of the Company
“Sixth Metallurgical Company”	:	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry (中國有色金屬工業第六冶金建設有限公司), a wholly-owned subsidiary of the Company
“Chinalco Southwest Construction”	:	Chinalco Southwest Construction Investment Co., Ltd. (中鋁西南建設投資有限公司), a wholly-owned subsidiary of the Company
“Ninth Metallurgical Company”	:	Ninth Metallurgical Construction Co., Ltd. (九冶建設有限公司), a subsidiary as to 72.08% owned by the Company
“Henan No.9 Metallurgical”	:	Henan No.9 Metallurgical Construction Corporation (河南九冶建設有限公司), a wholly owned subsidiary of Ninth Metallurgical Company, a subsidiary controlled by the Company
“Twelfth Metallurgical Company”	:	China Nonferrous Metals Industry’s 12th Metallurgical Construction Co., Ltd. (中色十二冶金建設有限公司), a company incorporated in the PRC with limited liability and a wholly-owned subsidiary of the Company
“Shandong Engineering”	:	Chalco Shandong Engineering Technology Co., Ltd. (中鋁山東工程技術有限公司), a subsidiary as to 60% owned by the Company
“Wancheng”	:	Chalco Wancheng Shandong Construction Co., Ltd. (中鋁萬成山東建設有限公司), a subsidiary of Chalco Shandong Engineering Technology Co., Ltd. (“Shandong Engineering”) that is a subsidiary controlled by the Company; Shandong Engineering holds 95.3% shares of Wancheng, and the remaining 4.7% shares are held by Shandong Shanlv Environmental New Materials Co., Ltd. (山東山鋁環境新材料有限公司)
“China Aluminum Equipment”	:	China Aluminum International Engineering Equipment Co., Ltd. (中鋁國際工程設備有限公司), a wholly-owned subsidiary of the Company
“China Aluminum Technology”	:	China Aluminum International Technology Development Co., Ltd. (中鋁國際技術發展有限公司), a wholly-owned subsidiary of the Company
“Miyu Company”	:	Yunnan Miyu Expressway Investment and Development Co., Ltd. (雲南彌玉高速公路投資開發有限公司)
“Renminbi” or “RMB”	:	the lawful currency of the PRC
“HK\$”	:	the lawful currency of Hong Kong
“receivables/inventory”	:	receivables, inventories and contract assets

SECTION 2 COMPANY PROFILE AND KEY FINANCIAL INDICATORS

I. CORPORATE INFORMATION

Chinese Name of the Company:	中鋁國際工程股份有限公司
Abbreviation of Chinese Name of the Company:	中鋁國際
English Name of the Company:	China Aluminum International Engineering Corporation Limited
Abbreviation of English Name of the Company:	CHALIECO
Legal Representative of the Company:	LI Yihua (李宜華)

II. CONTACTS AND CONTACT INFORMATION

	Secretary to the Board	Representative for Securities Affairs
Name:	ZHANG Jian (張建)	MA Shaozhu (馬韶竹)
Contact address:	Building C, No. 99 Xingshikou Road, Haidian District, Beijing (北京市海澱區杏石口路99號C座)	Building C, No. 99 Xingshikou Road, Haidian District, Beijing
Tel:	010-82406806	010-82406806
Fax:	010-82406666	010-82406666
E-mail:	IR-chalieco@chalieco.com.cn	IR-chalieco@chalieco.com.cn

SECTION 2 COMPANY PROFILE AND KEY FINANCIAL INDICATORS

III. BASIC INFORMATION

Registered address of the Company:	Building C, No. 99 Xingshikou Road, Haidian District, Beijing
Historical changes to the registered address of the Company:	At the time of establishment, the registered address of the Company was No. B12, Fuxing Road, Haidian District, Beijing (北京市海澱區復興路乙12號); in June 2009, the registered address was changed into the current one.
Office address of the Company:	Building C, No. 99 Xingshikou Road, Haidian District, Beijing
Postal code for the office address of the Company:	100093
Website of the Company:	http://www.chalieco.com.cn
E-mail:	IR-chalieco@chalieco.com.cn

IV. INFORMATION DISCLOSURE AND PLACE AT WHICH THE REPORT IS AVAILABLE

The Company's designated press media for information disclosure:	Securities Daily (《證券日報》)
CSRC designated website for Annual Report:	www.sse.com.cn
HKEX designated website for Annual Report:	www.hkex.com.hk
Annual Report is available at:	Board Office of Chalieco at Building C, No. 99 Xingshikou Road, Haidian District, Beijing

V. STOCK PROFILE

Stock Profile			
Share Class	Listed on	Stock Abbreviation	Stock Code
A Shares	SSE	中鋁國際	601068
H Shares	HKEX	CHALIECO	2068

SECTION 2 COMPANY PROFILE AND KEY FINANCIAL INDICATORS

VI. OTHER RELEVANT INFORMATION

CPA firm engaged by the Company:	Name:	WUYIGE Certified Public Accountants LLP
	Office address:	15F Xueyuan International Tower, No.1 Zhichun Road, Haidian District, Beijing
	Names of accountants who signed the report:	SHI Chenqi (石晨起), LIU Mingzhe (劉明哲)
Legal advisor as to PRC laws:	Name:	Jia Yuan Law Office (北京市嘉源律師事務所)
	Office address:	F408, Ocean Plaza, 158 Fuxing Men Nei Street, Xicheng District, Beijing (北京市西城區復興門內大街158號遠洋大廈F408)
Legal advisor as to overseas laws:	Name:	Clifford Chance (高偉紳律師行)
	Office address:	27th Floor, Jardine House, One Connaught Place, Central, Hong Kong (香港中環康樂廣場一號怡和大廈27樓)
A Shares Registrar of the Company:	Name:	China Securities Depository and Clearing Co., Ltd. Shanghai Branch (中國證券登記結算有限責任公司上海分公司)
	Office address:	188 South Yanggao Road, Pudong New Area, Shanghai (上海市浦東新區楊高南路188號)
H Shares Registrar of the Company:	Name:	Computershare Hong Kong Investor Services Limited (香港中央證券登記有限公司)
	Office address:	Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong (香港灣仔皇后大道東183號合和中心17樓1712-1716號舖)

SECTION 2 COMPANY PROFILE AND KEY FINANCIAL INDICATORS

VII. KEY ACCOUNTING FIGURES AND FINANCIAL INDICATORS FOR RECENT THREE YEARS

(I) Key Accounting Figures

(Expressed in RMB'0,000)

Key Accounting Figures	2021	2020		Change for the period as compared with that of the same period of last year (%)	2019
		After adjustment	Before adjustment		
Operating revenue	2,334,819.63	2,302,595.10	2,302,595.10	1.40	3,105,979.16
Net profit attributable to shareholders of the listed company	-95,012.97	-197,613.84	-197,613.84	51.92	3,485.26
Net profit attributable to shareholders of the listed company net of non-recurring gain or loss	-102,839.42	-210,738.12	-210,738.12	51.2	-3,882.83
Net cash flow from operating activities	73,421.50	61,073.56	61,073.56	20.22	109,597.68
	2021 year end	2020 year end		Change for the period as compared with that of the same period of last year (%)	2019 year end
		After adjustment	Before adjustment		
Net assets attributable to shareholders of the listed company	763,711.78	873,307.42	873,307.42	-12.55	1,132,205.99
Total assets	5,882,803.53	5,448,884.59	5,451,402.43	7.96	5,599,946.31

SECTION 2 COMPANY PROFILE AND KEY FINANCIAL INDICATORS

(II) Key Financial Indicators

Key Financial Indicators	2021	2020 After adjustment	Before adjustment	Year-on-year increase or decrease (%)	2019
Basic earnings per share (RMB/share)	-0.37	-0.71	-0.71	47.89	-0.02
Dilute earnings per share (RMB/share)	-	-	-	-	-
Basic earnings per share net of non-recurring gain or loss (RMB/share)	-0.39	-0.76	-0.76	48.68	-0.04
Weighted average return on net assets (%)	-18.91	-28.78	-28.78	Increase 9.87 percentage points	-0.66
Weighted average rate of return on net assets net of non-recurring gain or loss (%)	-20.28	-30.58	-30.58	Increase 10.3 percentage points	-1.53

Explanation of key accounting figures and financial indicators of the Company for the previous three years as at the end of the reporting period

☐ Applicable ☒ Not applicable

SECTION 2 COMPANY PROFILE AND KEY FINANCIAL INDICATORS

VIII. DIFFERENCES IN ACCOUNTING FIGURES UNDER DOMESTIC AND FOREIGN ACCOUNTING STANDARDS

- (I) Differences in net profit and in net assets attributable to shareholders of the listed company in financial reports disclosed under International Accounting Standards and under Chinese Accounting Standards

☐ Applicable ☒ Not applicable

- (II) Differences in net profit and in net assets attributable to shareholders of the listed company in financial reports disclosed under International Accounting Standards and under Chinese Accounting Standards

☐ Applicable ☒ Not applicable

- (III) Explanation of differences between Chinese Accounting Standards and International Accounting Standards:

☐ Applicable ☒ Not applicable

IX. KEY FINANCIAL FIGURES BY QUARTERS IN 2021

(Expressed in RMB)

	First quarter (From January to March)	Second quarter (From April to June)	Third quarter (From July to September)	Fourth quarter (From October to December)
Operating income	5,132,288,798.29	5,201,233,267.08	5,623,497,754.49	7,391,176,488.23
Net profit attributable to shareholders of the listed company	47,358,959.65	-43,993,102.60	918,365.62	-954,413,895.84
Net profit attributable to shareholders of the listed company net of non-recurring gain or loss	33,798,636.12	-50,803,235.73	-3,452,202.24	-1,007,937,411.43
Net cash flow from operating activities	-745,263,445.23	131,643,625.92	225,878,380.20	1,121,956,479.20

Description of differences between quarterly figures and those disclosed in regular reports

☐ Applicable ☒ Not applicable

SECTION 2 COMPANY PROFILE AND KEY FINANCIAL INDICATORS

X. ITEMS AND AMOUNTS OF NON-RECURRING GAIN OR LOSS

✓Applicable □Not applicable

(Expressed in RMB)

Non-recurring Gain or Loss	Amounts in 2021	Note (as applicable)	Amounts in 2020	Amounts in 2019
Gain or loss on disposal of non-current assets	2,692,036.23		10,691,841.44	-5,477,862.75
Tax return, reduction or exemption arising from ultra vires approval, without official approval document, or on an occasional basis				
Government subsidies recorded in current P&L (except government subsidies closely related to business operations granted continuously in a fixed amount or quota according to the unified national standards)	37,187,911.42		45,900,363.59	10,236,127.37
Financing fee income from non-financial enterprises recorded in current P&L	29,724,063.37		29,522,099.97	16,293,877.06
Gain arising from the acquisition of interests in a subsidiary, associate or joint venture at an investment cost below the share in the fair value of net identifiable assets of the investee at the time of acquisition				
Gain or loss on non-monetary asset exchange				41,952,015.53
Gain or loss on assets under discretionary investment or management				
Asset impairment provisions arising from force majeure factors such as natural disasters				
Gains or losses on debt restructuring	-34,207,788.80		7,442,237.22	-3,012,041.80
Restructuring costs, such as employee settlement cost and integration cost				
Gain or loss in excess of fair value arising from transactions at obviously unfair prices				
Net profit or loss of a subsidiary arising from business combination under common control for the period from the beginning of the reporting period to the combination date				1,057,684.02
Gains or losses on contingencies not related to normal operations of the Company				
Gains on investment in the fair value of the held-for – trading financial assets, derivative financial assets, held-for-trading financial liabilities and derivative financial liabilities held by the Company and investment income from disposal of held-for-trading financial assets, derivative financial assets, held-for-trading financial liabilities, derivative financial liabilities and other debt investments other than the valid hedging services related to the normal operating activities of the Company				

SECTION 2 COMPANY PROFILE AND KEY FINANCIAL INDICATORS

Non-recurring Gain or Loss	Amounts in 2021	Note (as applicable)	Amounts in 2020	Amounts in 2019
Reversal of impairment provisions on receivables and contract assets tested for impairment individually	76,812,476.82		49,732,396.52	15,941,582.21
Gain or loss on entrusted loans				
Gain or loss on changes in the fair value of investment property subsequently measured at fair value				
Impact of non-off adjustments to current P&L as required by taxation and accounting laws and regulations				
Trustee fee income from entrusted operations				
Other non-operating revenue and expenses other than above items	1,874,394.31		55,052,402.32	10,372,058.59
Other items falling within the definition of non-recurring gain or loss	-4,746,461.74		-19,100,700.00	
Less: Impact of income tax	18,918,444.63		13,621,092.18	-3,544,429.16
Impact of minority interests (after tax)	12,153,646.87		34,376,787.06	17,227,022.52
Total	78,264,540.11		131,242,761.82	73,680,846.87

Description of defining the extraordinary profit and loss listed in the “Explanatory Announcement No.1 on Information Disclosure for Companies Offering Their Securities to the Public – Extraordinary Profit and Loss” to be recurring profit and loss.

☐ Applicable ☒ Not applicable

XI. ITEMS MEASURED AT FAIR VALUE

☒ Applicable ☐ Not applicable

(Expressed in RMB)

Item	Opening Balance	Ending Balance	Change	Impact on Profit for the current period
Other equity instrument investments	41,563,578.70	41,449,494.75	-114,083.95	992,911.31
Total	41,563,578.70	41,449,494.75	-114,083.95	992,911.31

XII. OTHERS

☐ Applicable ☒ Not applicable

MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)



SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

I. OPERATING RESULTS DISCUSSION AND ANALYSIS

Operating Results of FY2021

By the end of 2021, the Company's total assets amounted to RMB58.8 billion, total liabilities RMB42.3 billion, and the asset-liability ratio was 71.93%; the new contract value for the year was RMB44.7 billion, the operating revenue was RMB23.3 billion, and the operating net cash flow reached RMB734 million.

(I) All-round market expansion

Comprehensive grade-A engineering qualification. After four years' hard work, the Company finally obtained the Certificate of Comprehensive Grade-A Engineering Qualification issued by the Ministry of Housing and Urban-Rural Development of the PRC on 4 June 2021, laying a solid foundation for the Company to develop the engineering market in an all-round way.

Overseas business growth in pandemic. The Company actively practices the development strategy of "technology + international", guided by technologies, to develop overseas business with great efforts. GAMI signed a BALCO electrolytic aluminum supply and service contract in India, with a contract value of USD 320 million; SAMI signed the general contracting project for the upgrading and transformation of the electrolytic aluminum plant in Indonesia, with a contract value of USD 99.75 million; CNPT signed a BALCO aluminum plate and strip design and supply and management contract, with a contract value of USD 34.5 million.

Deeply rooted in non-ferrous metals market. The Company takes advantage of their own technologies, focuses on energy conservation, environmental protection and new energy materials, and forms new advantages in the non-ferrous market development.

Expand transitional business. In 2021, the Company vigorously developed municipal, infrastructure, engineering aluminum and other projects, to form new business growth points.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(II) Innovation-driven green development

Green low-carbon technology innovation. In 2021, the Company seized the opportunity in the new round of industrial transformation and sci-tech revolution. In the “eight fields and five directions”, our 15 outcomes passed the evaluation of technical achievements organized by industry associations, of which 11 outcomes were recognized to be world leading by the experts panel; the Company won 32 provincial or ministerial level sci-tech awards, including 15 first prizes, and 1 “Chinese patent excellency award”. The “Super-large green energy-saving aluminum electrolysis complete technology outstanding achievement project team” won the CHINALCO 4th Outstanding Achievement Award in Scientific and Technological Innovation. In 2021, the Company completed a total of 313 patent applications, of which invention patents accounted for 42%; and obtained 311 authorized patents, including 8 overseas patents. The Company newly applied for 24 software copyrights and obtained 29 registered software copyrights.

Led by technologies to create core competence. SAMI and GAMI have many world leading technologies, CINF has a technological outcome that has realized high efficiency and green production in the process industry. The production and installation project of a super high-rise steel structure in Beijing undertaken by Ninth Metallurgical Company has filled the gap in the Company's construction in the field of super high-rise steel structures.

Innovative technology source. GAMI and Guangxi Investment Group (廣投集團) have strategically cooperated to jointly establish the China-ASEAN Aluminum and Magnesium Industry Digital Transformation and Innovation Center (中國東盟鋁鎂產業數位化轉型創新中心); CINF “Nonferrous Metals Resources Cycle Efficient Utilization Public Technical Service Platform” (有色金屬資源循環高效利用公共技術服務平台) was approved by the Hunan NDRC; the Sixth Metallurgical Company's “8th Batch of Post-doctoral Innovation Practice Bases in Henan Province” (第八批河南省博士後創新實踐基地) were approved.

(III) Multiple measures for high-quality projects

Technology empowered to significantly improve the project quality. Throughout the year, the Company won 1 China Construction Engineering Luban Prize, 3 National Quality Engineering Awards, completed 9 provincial or ministerial level excellent projects cumulatively, won 42 Nonferrous Metal Construction Industry Achievement Awards and had 70 provincial or ministerial level excellent QC outcomes cumulatively, of which, there were 23 first prizes, 26 second prizes and 21 third prizes.

Project control in place. The Company actively carries out the philosophy of full process dynamic cost control, introduces the cost early warning mechanism and loss-incurring project fuse mechanism, and strictly regulates the bidding management, to make the safety control more accurate in place.

Safety, quality and environmental efforts, to realize zero accident. Throughout the year, the Company had no accident, no environmental incident, and no grade A quality incident.

(IV) In-depth reform for value creation

Focus on efficiency, optimize capital structure. The Company seized the opportunity of China's loose monetary policy in support of real businesses, actively adjusted the structure of financing terms, and increased the financing of long-term funds. The proportion of the Company's long-term financing has increased significantly compared with the beginning of the year, while the comprehensive financing interest rate has declined, and the financing cost has decreased year-on-year.

Focus on efficiency, optimize control mode. In 2021, the Company fully promoted the 3-year SOE reform plan, and rolled out the all-level corporate tenure system and contractual management, which motivated the majority of cadres and employees.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

II. INDUSTRY OVERVIEW WITHIN THE REPORTING PERIOD

In 2021, Chinese non-ferrous metal industry overcame the adverse impact of recurring pandemic, seized the opportunity of market recovery, continued to deepen the supply-side structural reform, ensured the effective supply of the industrial chain and supply chain, accelerated the promotion of industrial intelligence, greening, and high-end development, and the overall operation of the industry was smooth. To be specific, Chinese aluminum industry strictly controlled the new production capacity of electrolytic aluminum, strictly implemented the replacement of production capacity, and accelerated the optimization and adjustment of the industrial layout. The industry is running well, and the benefits improved significantly. According to data from the National Bureau of Statistics (NBS), in 2021, the output of alumina, electrolytic aluminum, and aluminum products reached 77.48 million tons, 38.5 million tons, and 61.05 million tons, respectively, up 5%, 4.8%, and 7.4% year-on-year respectively, representing the two-year average growth of 3.4%, 4.8% and 7.8% respectively, and the production volume increased steadily. 2021 was the year for the official implementation of the “carbon peaking and carbon neutrality” goals, which had a great impact on market sentiment and actuality. The dual control of energy consumption restricted the production of the aluminum industry throughout the year. After the carbon peaking and carbon neutrality goals were put forward, electrolytic aluminum, as a high energy-consuming industry, received more and more policy attention. Energy consumption reduction and emission reduction became the current and future policy orientations, and the national and local governments directly or indirectly published relevant policies frequently, and the industry should experience a long-term process of consumption and carbon reduction. The energy environment of the aluminum industry was becoming increasingly severe.

The construction industry as a pillar industry in Chinese national economy is constantly increasing. According to the NBS preliminary statistics, the output value of the construction industry in 2021 increased by 2.1% over the previous year, accounting for 7.01% of the GDP, having promoted economic growth, alleviated employment pressure and promoted new-type urbanization. According to the NBS statistics, in 2021, the national fixed asset investment (excluding farmers) increased by 4.9% over the previous year, an increase of 8.0% over 2019, representing a 2-year average growth of 3.9%. Among them, the construction and installation investment increased by 8.9% over the previous year. Despite the achievements, the construction industry still suffers from low development quality and low efficiency, featured by extensive development methods, low labor productivity, high energy consumption and high emissions, and irregular market order. 2021 was the first year of the “14th Five-Year Plan” period. On one hand, the construction industry further strengthened the integration with advanced manufacturing and new-generation information technology, with huge potential and development space; on the other hand, Chinese urbanization was shifting to stock quality improvement and incremental structural adjustment, providing a rare opportunity for transformation and development of the construction industry. In the future, the construction industry will urgently need to build a new development idea, organically combine the expansion of domestic demand with the transformation of the development mode, and promote both at the same time, improve from the pursuit of high-speed growth to the pursuit of high-quality development, improve from the expansion of “quantity” to the improvement of “quality”, and pave a new road of intensive development.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

III. BUSINESS OVERVIEW OF THE COMPANY FOR THE REPORTING PERIOD

(I) Principal business and operation modes

The Company is a leading technology, engineering service and equipment provider in the nonferrous metals industry in China, capable of providing a full range of integrated technical and engineering design and construction services for various businesses in the entire nonferrous metals industry chain. The Company's businesses mainly include engineering survey, design and consultancy, engineering and construction contracting, equipment manufacturing and equipment trading. In 2021, the Company continued to be among the China's Fortune 500; meanwhile, in the 2021 "TOP 150 GLOBAL DESIGN FIRMS" and "TOP 225 INTERNATIONAL DESIGN FIRMS", the Company was included again and ranked at 105th and 164th, respectively.

1. Engineering survey, design and consultancy business

Engineering survey, design and consultancy are the Company's traditional key business, covering mining, ore dressing, smelting and processing in the non-ferrous metal industry, geological survey and building construction in the construction industry, as well as engineering design in energy, chemical and environmental protection, etc. The Company's main customers are non-ferrous metal smelting and processing enterprises, and employers in construction and other industries. The Company's technicians have expertise in over 40 professional fields such as geological survey, process design, equipment design, electrical automation, general layout and transportation design, civil engineering, public facilities construction, environmental protection, project budget and technical economy, and have provided engineering design and consultancy services for over 2,000 key construction projects of the state and various industries as well as over 100 overseas projects.

2. Engineering and construction contracting business

The Company's engineering and construction contracting business covers metallurgy industry, housing construction, highways, building materials, electricity, water conservancy, chemical industry, mining, municipal utilities, steel structure and other fields. The Company adopts a couple of engineering and construction contracting business modes, including EPC, EP and PC. Meanwhile, the Company takes part in project construction and operation management through PPP and other modes. With its technology and experience, the Company has established a leading position in China's non-ferrous metal industry, particularly in the area of engineering contracting for the aluminum industry. In recent years, the Company has undertaken many large-scale EPC projects at home and abroad.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

3. Equipment manufacturing business

Equipment manufacturing is a high-tech industry that the Company develops vigorously. The Company insists on independent technological innovation, and focuses on research and development of new process, new technologies, advanced materials and new equipment of non-ferrous metal, leading the direction of technology development of China's non-ferrous metal industry. The Company's equipment manufacturing segment mainly provide customized core metallurgical and processing equipment, environmental protection equipment, mechanical and electronic equipment, industrial automation systems and mine safety monitoring and emergency response intelligent systems. The Company's products are used in many areas in the non-ferrous metal industry chain, including mining, ore dressing, smelting and metal material processing. In 2021, the company developed a 2,800mm six-kun cold rolling mill, which filled the domestic gap in related fields, and became a leading manufacturer of non-ferrous metal rolling mills in China.

4. Trading business

In order to strengthen cost and risk control, the Company has adopted a centralized procurement approach, and mainly carried out the equipment and raw material trading business related to its principal operations.

(II) Specific business models for engineering design and consultancy, and engineering and construction contracting

The Company has long been engaging in survey, design and project contracting in the non-ferrous metal field. With technological innovation and industrialization as its core competitiveness, the Company has its business covering engineering survey and design and consultancy, engineering and construction, equipment manufacturing and other fields, and has established a business model covering full industrial chain of "investment and financing-planning-design-engineering construction asset operation/industrial service". Among them, the engineering and construction contracting business covers metallurgical industry, housing construction, highways, municipal engineering and other fields, and adopts various business development modes such as construction contracting and general engineering contracting (including EPC, EP, PC, etc.).

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

1. The Company's engineering design and consultancy business involves compiling relevant technical data and provide technical services based on the engagement of owners, and to carry out engineering consultancy, design and survey services according to the design consultation process to ensure compliance with the requirements stipulated in the contract. Rights and obligations: based on the true and accurate basic information provided by the owner, we have the obligation to provide qualified technical products as agreed in the contract, and also have the right to collect service fees in a timely manner as agreed in the contract. Pricing mechanism: service fees are charged generally by reference to national fee rates for engineering survey and market conditions and based to specific conditions such as the complexity of the project. Relying on the Company's technical advantages in the non-ferrous metallurgy industry, this business brings a higher profit margin compared with engineering construction projects. As to payment terms in the contract, usually an advance payment of about 10%-20% is required, and the remaining amount is paid in installments according to the amount of work completed (as for engineering design business) or settled in full upon delivery of the consultation report (as for engineering consultancy business). The Company bears the risks associated with product design quality and progress pursuant to the contract. This business segment does not involve financing.
2. The Company's engineering and construction contracting business covers metallurgical industry, housing construction, highways, mines, municipal utilities and other fields. The Company adopts a number of business modes, including traditional contracting, EPC (including EP and PC), and investment-finance-build (including PPP), etc. Risks: under the traditional contracting mode, the Company acts as a contractor and is responsible for project construction and equipment installation; Under the EPC mode, the Company takes charge of the whole design process, procurement of materials and equipment, construction, equipment installation and testing, and is liable to the proprietor for the quality, safety, on-time delivery and cost of the project. The main risk for the Company involves material difference not higher than a certain rate as agreed in the contract, while the proprietor assumes compliance risks of the project and ensures the availability of project funds; Under the PC mode, the Company undertakes the procurement and construction of the project according to the contract, and is liable for the quality, safety, progress and cost of the project. Pricing: through participating in competitive bidding, the Company will conduct detailed research on the proposed project in deciding the bid. Specifically, based on on-site visit, the Company will analyze and study on technical conditions, commercial conditions and other factors, forecast the project costs, and based on this, adds proposed gross profit to derive the bid price. Payment collection: mainly project progress payments, settled and collected according to the monthly progress or milestones, and advance payment (if any) is collected according to the contract.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

3. According to the direction of national policies, the Company has chosen to undertake some PPP investment-finance-build projects. Risks: the Company, as the general contractor and non-government equity investor of the project, mainly undertakes engineering construction and shares operational risks of the project with the government, while the government mainly bears compliance risk and land acquisition and relocation risks. Finance: in addition to capital injected by all equity investors, project loans represent a major source of funds for the project. Payment collection: the Company, as the general contractor and non-government equity investor of the project, has different sources of income during the construction period and the operation period. During the construction period, income mainly comes from progress payments made by the project company, while during the operation period, income mainly comes from fees paid by users and feasibility gap subsidy from the government. Pricing based on the PPP mode, the pricing is mainly to determine the rate of return on non-governmental investment (including financing), including the annual discount rate, reasonable profit margin, and engineering construction profit, and the government determines the nongovernmental investor through public tender. Profit: The Company, as both an investor and a project contractor, mainly generates profits from construction during the construction period, and from feasibility gap subsidy from the government during the operation period. Rights and obligations: the Company has the right of construction and payment collection of projects during the construction period, and the right to collect fees from users and feasibility gap subsidies from the government as agreed in the contract during the operation period, and the obligation to ensure successful completion and normal operation of the project.

IV. CORE COMPETENCE ANALYSIS IN THE REPORTING PERIOD

✓Applicable ☐Not applicable

(I) Technical and talents advantages

The Company has strong capabilities of scientific research and technical innovation, has 5 grade A design research institutes, and 2 grade A survey research institutes, has an experienced professional and technical team, and has more than 50 survey and design masters in the industry across China. As at the end of 2021, the Company has 6 national level engineering technology research centers and national level technology centers, 2 national level corporate postdoctoral research stations, 17 provincial level engineering technology centers, 2 provincial level postdoctoral innovation practice base and 1 provincial level engineering laboratory.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(II) Full industry chain advantages

The Company has full professional and wide-ranging technology integration capabilities and full industry chain comprehensive competitiveness, operating engineering survey, engineering design and consulting, engineering construction, equipment manufacturing, operation and maintenance, and other business. Clued by strong technology, supported by refined management, by means of professional services, the Company can provide industry customers with a full range of services in engineering design and consulting, engineering construction, operation management and specialized equipment manufacturing, to solve common problems and “high, deep, difficult, special” problems for customers.

(III) Qualification advantages

The Company has 229 engineering survey, design, construction, supervision and cost qualifications, including comprehensive grade-A engineering, building construction general contracting and metallurgical construction general contracting.

(IV) Strong customer network and good customer relations

The Company maintains a good business relationship with many large domestic non-ferrous metal companies, and with our good reputation and fame gained in the historical cooperation, the Company will be a priority choice for engineering projects of major non-ferrous metal companies.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

V. MAIN OPERATIONS WITHIN THE REPORTING PERIOD

In 2021, the Company recorded operating revenue RMB23,348,196,300, up 1.4% year-on-year; total profit RMB -756,265,300, down by 58.56% year-on-year; and net profit attributable to the parent company RMB -950,129,700, down by 51.92% year-on-year.

(I) Principal Business Analysis

1. Analysis of changes in relevant items on income statement and cash flow statement

(Expressed in RMB'0,000)

Item	Current	Previous	Change, (%)
Operating revenue	2,334,819.63	2,302,595.10	1.40
Operating cost	2,017,984.95	2,092,789.58	-3.54
Sales expense	9,566.73	9,636.16	-0.72
Administrative expense	101,439.58	100,037.11	1.40
Financial expense	55,315.28	53,209.86	3.96
R&D expense	76,012.72	60,416.28	25.81
Net cash flow from operating activities	73,421.50	61,073.56	20.22
Net cash flow from investing activities	-408,394.22	-416,264.78	-1.89
Net cash flow from financing activities	343,629.97	102,586.34	234.97

Operating revenue: No significant change

Operating cost: No significant change

Sales expense: No significant change

Administrative expense: No significant change

Financial expense: No significant change

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

R&D expense: Increased mainly due to the Company's further increase in research and development investment, the increase in technology research and development projects.

Net cash flow from operating activities: Increased due to the Company's stronger receivables/inventory clearing and stronger budget management

Net cash flow from investing activities: No significant change

Net cash flow from financing activities: due to the Company's repayment of RMB2.9 billion perpetual bonds in previous year. No such outflow occurred as at the end of this year

Detailed explanation for the significant changes in the Company's current business type, profit composition or source.

☐Applicable ☒Not applicable

2. Revenue and cost analysis

☒Applicable ☐Not applicable

In 2021, the Company recorded operating revenue of RMB23.348 billion, up 1.4% year-on-year. The Company's business covers engineering and consulting, construction and contracting, equipment manufacturing and trading. In terms of segment development layout, the engineering and consulting, equipment manufacturing segments maintained the same level with previous year, while the project contracting segment recorded high growth of 8.41% year on year, revenue from the trading segment shrank significantly, mainly due to the Company's implementation of a centralized procurement strategy to strengthen cost and risk control, endeavoring to transfer its business model to the provision of centralized procurement services for equipment and materials for the Company's engineering projects.

In addition to the PRC, the Company also operates in countries and regions such as Vietnam, Venezuela, Indonesia, Saudi Arabia, Italy, etc.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(1). Principal business by sector, product, geography and by sales mode

(Expressed in RMB)

Principal business by sector						
Sector	Operating revenue	Operating cost	Gross margin (%)	Changes in operating revenue over the previous year (%)	Changes in operating cost over the previous year (%)	Changes in gross margin over the previous year (%)
Engineering and consulting	2,285,879,546.65	1,699,125,799.40	25.67	3.41	-0.09	Up by 2.6 percentage points
Construction and contracting	19,373,217,894.04	16,818,056,033.64	13.19	8.41	2.75	Up by 4.79 percentage points
Equipment manufacturing	1,546,395,466.70	1,413,370,131.40	8.6	-3.51	-6.53	Up by 2.94 percentage points
Trading	326,436,722.07	430,044,141.69	-31.74	-79.46	-72.64	Down by 32.84 percentage points
Inter-segment elimination	-183,733,321.37	-180,746,654.25	-	-	-	
Total	23,348,196,308.09	20,179,849,451.88	13.57	1.4	-3.54	Up by 4.43 percentage points

Principal business by geography						
Geography	Operating revenue	Operating cost	Gross margin (%)	Changes in operating revenue over the previous year (%)	Changes in operating cost over the previous year (%)	Changes in gross margin over the previous year (%)
PRC	22,770,097,983.46	19,733,113,138.76	13.34	2.28	-3.33	Up by 5.02 percentage points
Other countries and regions	578,098,324.63	446,736,313.12	22.72	24.26	-12.31	Down by 10.54 percentage points
Total	23,348,196,308.09	20,179,849,451.88	13.57	1.40	-3.54	Up by 4.43 percentage points

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

Explanation of principal business by sector, product, geography

① Engineering and consulting segment (before elimination of inter-segment transactions)

(Expressed in RMB)

Item	2021	2020	Growth (%)
Operating revenue	2,285,879,546.65	2,210,565,884.78	3.41
Operating cost	1,699,125,799.40	1,700,634,475.09	-0.09
Gross profit	586,753,747.25	509,931,409.69	15.07
Gross margin (%)	25.67	23.07	Up by 2.6 percentage points
Sales expense	48,646,042.37	50,789,344.74	-4.22
Administrative and R&D expense	502,719,241.14	557,695,705.55	-9.86
Total profit	87,943,254.62	-298,468,445.76	N/A

The Company's revenue from engineering and consulting business amounted to RMB2.286 billion in 2021, which remained basically flat as compared with the previous year, with a gross profit margin of 25.67%, representing an increase of 2.6 percentage points as compared with the previous year. The engineering and consulting business developed steadily.

② Construction and contracting segment (before elimination of inter-segment transactions)

(Expressed in RMB)

Item	2021	2020	Growth (%)
Operating revenue	19,373,217,894.04	17,869,639,907.74	8.41
Operating cost	16,818,056,033.64	16,368,353,522.87	2.75
Gross profit	2,555,161,860.40	1,501,286,384.87	70.20
Gross margin (%)	13.19	8.40	Up by 4.79 percentage points
Sales expense	26,426,283.05	21,001,520.73	25.83
Administrative and R&D expense	1,077,242,726.30	873,100,597.43	23.38
Total profit	251,245,148.12	-822,711,642.19	N/A

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

In 2021, the Company's revenue from construction and contracting business amounted to RMB19.373 billion, up by RMB1.504 billion over 2020, with a gross profit margin of 13.19%, representing an increase of 4.79 percentage points as compared with 2020. This was mainly due to the increase in revenue from municipal projects and expressway projects and other projects which command higher profitability as the Company progressively implemented projects while continuing to effectively normalize epidemic prevention and control efforts, as well as the increase in gross profit margin as compared to the previous year thanks to the Company's further improvement in refined cost management and control.

③ Equipment manufacturing business (before elimination of inter-segment transactions)

(Expressed in RMB)

Item	2021	2020	Growth (%)
Operating revenue	1,546,395,466.70	1,602,715,700.97	-3.51
Operating cost	1,413,370,131.40	1,512,041,777.91	-6.53
Gross profit	133,025,335.30	90,673,923.06	46.71
Gross margin (%)	8.60	5.66	Up by 2.94 percentage points
Sales expense	13,188,117.45	16,251,957.34	-18.85
Administrative and R&D expense	169,622,547.72	161,208,831.87	5.22
Total profit	-88,641,655.76	-226,825,480.34	60.92

In 2021, the Company's revenue from equipment manufacturing business is RMB1.546 billion, down by RMB56 million over 2020, with a gross profit margin of 8.6%, representing an increase of 2.94% as compared with 2020. This was mainly due to the improvement of technical level and the increase in profitability of newly signed orders, as well as the significant increase in gross profit margin as the Company further strengthened the integration of the supply chain, reduced outsourcing and subcontracting and continued to strengthen cost reduction measures in all aspects of the entire production process. Management and research and development expenses amounted to RMB170 million, representing an increase of RMB8 million or 5.22% as compared with 2020, mainly because the Company continued to increase its scientific research investment.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

④ Trading business (before elimination of inter-segment transactions)

(Expressed in RMB)

Item	2021	2020	Growth (%)
Operating revenue	326,436,722.07	1,589,019,470.35	-79.46
Operating cost	430,044,141.69	1,571,552,456.29	-72.64
Gross profit	-103,607,419.62	17,467,014.06	-693.16
Gross margin (%)	-31.74	1.1	Down by 32.84 percentage points
Sales expense	7,406,824.92	8,318,791.61	-10.96
Administrative and R&D expense	27,925,205.75	25,209,683.99	10.77
Total profit	-1,004,573,658.80	-476,760,214.98	-110.71

In 2021, the Company's revenue from trading business recognized a revenue of RMB326 million, down by RMB1.263 billion from 2020, with a gross profit margin of -31.74%, representing a decrease of 32.84% as compared with the previous year. This was mainly due to the substantial decrease in revenue as the Company's trading business was in a transitional stage where the external trading business was suspended so as to transform into a centralized procurement service that provides equipment and materials for the Company's engineering projects, as well as the loss recoded during the current period because the Company transferred the input tax corresponding to the business that did not meet the input tax credit conditions and export tax rebate conditions into the cost for the sake of prudence.

(2). *Analysis of production volume and sales volume*

☐ Applicable ☒ Not applicable

(3). *Performance of major purchase or sales contracts*

☐ Applicable ☒ Not applicable

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(4). Cost analysis

(Expressed in RMB'0,000)

Sector	Cost composition project	By sector		Previous	Percent, (%)	Change, (%)	Description
		Current	Percent, (%)				
Engineering and consulting	Labor, raw materials, outsourced labor cost, etc.	169,912.58	8.42	170,063.45	8.13	-0.09	Substantially in the same level with previous year
Contracting	Subcontractor costs, labor costs, raw materials, machinery usage fees, etc.	1,681,805.60	83.34	1,636,835.35	78.24	2.75	Increased along with revenue increase
Equipment manufacturing	Subcontractor costs, labor costs, raw materials, machinery usage fees, depreciation and amortization, etc.	141,337.01	7.00	151,204.18	7.23	-6.53	Optimized subcontracting and supply chain and reduced operating cost
Trading	Goods outsourcing	43,004.41	2.13	157,155.25	7.51	-72.64	Cost decreased mainly because trading business shrank significantly.
Inter-segment elimination		-18,074.67	0.90	-23,115.21	-1.10	-	-
Total		2,017,984.95	100.00	2,092,143.02	100.00	-3.54	The Company continued promoting cost reduction and expenditure control, and the costs were lowered

Description of other cases in cost analysis

None.

(5). Changes in consolidation scope due to changes in equity of major subsidiaries within the reporting period

☐Applicable ☒Not applicable

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(6). *Major changes or adjustments to business, products or services within the reporting period*

☐Applicable ☒Not applicable

(7). *Particulars of major customers and major suppliers*

A. Major clients of the Company

Sales to top five customers amounted to RMB3,229,431,900, representing 13.83% of total sales for the year, among which sales to related parties amounted to RMB0, representing 0% of total sales for the year.

Particulars that the sales to a single customer accounted for more than 50% of total sales, and there was any new customer in the top five customers, or seriously relying on a few customers within the reporting period

☐Applicable ☒Not applicable

B. Major suppliers of the Company

Purchases from top five suppliers amounted to RMB1,802,267,700, representing 8.93% of total purchases for the year, among which purchases from related parties amounted to RMB0, representing 0% of total purchases for the year.

Particulars that the purchases from a single supplier accounted for more than 50% of total purchases, and there was any new supplier in the top five suppliers, or seriously relying on a few suppliers within the reporting period

☐Applicable ☒Not applicable

Other particulars

None.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

3. Expense

☒ Applicable ☐ Not applicable

Sales expenses for the period amounted to RMB95,667,300, down by 0.72% from the previous year, substantially at the same level with previous year.

Administrative expenses for the period amounted to RMB1,014,395,800, up by 1.4% from the previous year, substantially at the same level with previous year.

R&D expenses for the period amounted to RMB760,127,200, up by 25.81% from the previous year, mainly due to the Company further increased in research and development investment and the increased technology research and development projects.

Financial expenses for the period amounted to RMB553,152,800, up by 3.96% from the previous year, mainly due to increased exchange losses in this reporting period.

4. R&D investments

(1). *Particulars of R&D investments*

☒ Applicable ☐ Not applicable

(Expressed in RMB)

Expensed R&D investment for the period	760,127,246.39
Capitalised R&D investment for the period	0.00
Total R&D investment	760,127,246.39
Percentage of total R&D investment in operating revenue (%)	3.26
Percentage of capitalised R&D investment (%)	0.00

**SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)***(2). Particulars of R&D team*✓Applicable ☐Not applicable

Number of R&D team members of the Company	2,584
Number of R&D team members in total headcount of the Company (%)	20.6

Educational structure

Category of educational structure	Number
Doctor's degree	23
Master's degree	649
Bachelor's degree	1,535
Junior college	334
Middle school or lower	43

Age structure

Category of age structure	Number
< 30 years old (excluding 30)	541
30-40 years old (including 30, excluding 40)	1,050
40-50 years old (including 40, excluding 50)	539
50-60 years old (including 50, excluding 60)	442
>=60 years old	12

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(3). *Description*

☒Applicable ☐Not applicable

In 2021, Chinalco leveraged on the innovative advantages of the integration of scientific research and engineering in the entire industry chain of the business and focused on the “eight sectors, five directions” of the Company’s principal businesses. We have formulated the annual investment plan of research and development and organized and completed the annual key scientific research projects of the Company and its affiliated enterprises. Research and development projects are market-oriented. Projects in the field of survey and exploration, geotechnical engineering technology, mine evaluation and governance, disaster prevention and control and monitoring and goaf governance are aimed at domestic technical gaps and shortcomings, so as to reduce the occurrence of secondary geological disasters. These projects all have obvious economic effects and market prospects. In the field of alumina, we focus on directions of strengthening the dissolution and decomposition process, automatic detection of production processes, energy saving and carbon reduction and quality improvement. In the field of electrolytic aluminum, we accelerate research to realize flexible production methods maximize production efficiency. In the field of mining, we continue to advance in the direction of “three highs” and overcome the difficulties of “three highs”, so as to realize the solution of strategic problems such as high-altitude and deep mining of mineral resources. In the field of heavy non-ferrous and rare metal smelting, we vigorously promote clean production and comprehensive utilization technology of resources, so as to achieve the reduction and recycling of heavy non-ferrous, hazardous and solid waste and reduce environmental pollution, as well as aiming at the “double carbon” goal, and practice the concept of “green development”. In the field of intelligent manufacturing, we accelerate the integration of cutting-edge technologies with the non-ferrous metal industry and build full-process automated production lines, a comprehensive integrated information management and control platform and an intelligent production system with real-time collaborative optimization, so as to promote green, efficient and intelligent development of the non-ferrous metal industry. In the field of construction, informatization and modern management are deeply integrated, so as to optimize the supply chain and enhance their own value.

Investments in research and development are aiming at numerous sectors like non-ferrous industry and municipal public service construction, which have achieved important staged results and key breakthroughs and filled the domestic technical gaps and shortcomings. The research and development of new technologies is crucial for promoting design optimization, reducing investment in constructions, making full use of resources and efficient production. The industrial application of new achievements will play a positive role and bring long-term benefits in solving production costs, market environment and environmental protection issues of production enterprises and maximize production benefits. In the meantime, we focus on the goal of “carbon peaking and carbon neutrality” and arrange for emerging industries, so as to become a new profit growth point for the Company and also provide technical support for promoting the international cooperation of the “One Belt One Road” projects.

(4). *Reason for significant change in R&D team structure and its influence on the Company’s future development*

☐Applicable ☒Not applicable

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

5. Cash flow

☒Applicable ☐Not applicable

Details of cash flow of the Company are set out below:

(Expressed in RMB'0,000)

Item	2021	2020	Change
Net cash flow from operating activities	73,421.50	61,073.56	12,347.95
Net cash flow from investing activities	-408,394.22	-416,264.78	7,870.56
Net cash flow from financing activities	343,629.97	102,586.34	241,043.63

In 2021, net cash inflow from operating activities was RMB734,215,000, up by RMB123,479,500 year-on-year. The Company continued to strengthen the clearing of receivables/inventory, strengthen budget management, match cash income to expenditures, and realize the net cash inflow from operating activities.

In 2021, net cash outflow from investing activities was RMB4,083,942,200, substantially at the same level with previous year.

In 2021, net cash inflow from financing activities was RMB3,436,299,700, mainly from minority shareholders' contribution RMB2 billion to Miyu project and the financing for the project construction, up RMB2,410,436,300 year on year, mainly due to the repayment of RMB2.9 billion perpetual bonds in previous year, and no such outflow occurred this year.

(II) Explanation of material changes in profit caused by non-principal business

☐Applicable ☒Not applicable

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(III) Analysis of assets and liabilities

☒ Applicable ☐ Not applicable

1. Assets and liabilities

(Expressed in RMB'0,000)

Item	Current	Percentage in total assets (%)	Previous	Percentage in total assets (%)	Change (%)	Remarks
Other non-current assets	1,369,290.91	23.28	801,077.34	14.7	70.93	Increased investment in current construction of Yunnan Miyu Expressway PPP Project (雲南彌玉高速公路PPP項目)
Notes payable	278,245.09	4.73	174,659.62	3.21	59.31	Increased percentage of notes payment during this reporting period
Contract liabilities	325,457.34	5.53	266,120.98	4.88	22.3	Increase in advances of new projects undertaken
Other current liabilities	162,633.88	2.76	251,748.40	4.62	-35.4	Decreased value-added tax for which the Company recognized revenue in the previous period but did not result in tax liability

Other explanations

None.

2. Details of overseas assets

☐ Applicable ☒ Not applicable

3. Details of significant restricted assets as at end of the reporting period

☒ Applicable ☐ Not applicable

Restricted assets	Closing book value	Reasons for restriction
Monetary funds	898,492,287.9	Frozen and pledged
Notes receivable	88,175,287.39	Pledged
Accounts receivable	158,840,940.68	Pledged
Fixed assets	8,931,142.92	Secured
Total	1,154,439,658.89	—

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

4. Other explanations

✓Applicable ☐Not applicable

(1) Borrowings

Details of interest-bearing liabilities of the Company are set out below:

(Expressed in RMB'0,000)

Item	As at the end of 2021	As at the end of 2020	Change
Borrowings from banks and financial institutions	1,762,151.02	1,477,133.19	285,017.83
Short-term bonds		100,227.95	-100,227.95
Long-term bonds financing plan	40,000.00		40,000.00
Bonds payable due within one year	-	-	-
USD perpetual bonds declared to be redeemed	-	-	-
Total interest-bearing liabilities	1,802,151.02	1,577,361.14	224,789.88
Less: cash and cash equivalents (excluding restricted cash)	661,830.41	654,999.49	6,830.92
Net interest-bearing liabilities	1,140,320.61	922,361.65	217,958.96

As of 31 December 2021, the Company had outstanding borrowings of RMB18,021,510,200 up by RMB2,247,898,800 from RMB15,773,611,400 as at 31 December 2020. As at the end of 2021, net interest-bearing liabilities (interest – bearing liabilities less cash and cash equivalents) amounted to RMB11,403,206,100, up by RMB2,179,589,600 from RMB9,223,616,500 as at the end of 2020.

The Company's asset-liability ratio was 71.93% as at the end of 2021, up 0.63 percentage point as compared to 71.3% as at the end of 2020. The Company's asset-liability ratio was calculated based on the ratio of total liabilities to total assets.

(2) Pledge of assets

As of 31 December 2021, the Group pledged receivables of RMB158,840,900 to obtain short-term loans of RMB147,524,900 and long-term loans of RMB11,316,000.

(3) Contingent liabilities

As of 31 December 2021, the Company did not have any material contingent liabilities.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(IV) Completed and uncompleted projects

The number, amount, location and major risks of completed and uncompleted projects for the reporting period are set forth below by business models:

Uncompleted

Business modes	Number of uncompleted contracts	Revenue (RMB100 million)	Location
Traditional engineering construction	1,597	171.64	Henan, Shanxi, Sichuan, etc.
EPC	65	7.55	Guangxi, Guizhou, Inner Mongolia, etc.
Investment-finance-building	6	1.38	Yunan, Xi'an, Henan, etc.
Total	1,668	180.57	

Completed

Business modes	Number of completed contracts	Revenue (RMB100 million)	Location
Traditional engineering construction	1,302	12.69	Fujian, Shanxi, Guangxi, Guangdong etc.
EPC	23	0.47	Inner Mongolia, Yunnan, Guizhou etc.
Investment-finance-building	0	0	
Total	1,325	13.16	

Completed projects of the Company mainly involves payment risk. Among uncompleted projects, the traditional construction contracting business mainly carries the risks of delayed settlement and delayed payment, the EPC mode mainly involves procurement risk, while the investment-finance-building mainly entails financing risk, the risk of the proprietor failing to buy back on schedule and operational risks associated with the operation period.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(V) Industry Operational Information Analysis

☒ Applicable ☐ Not applicable

The Group's main business operations include engineering design and consulting, engineering and construction contracting, equipment manufacturing and trading, and according to the Guidelines for the Industrial Classification of Listed Companies (Revised in 2012) issued by the CSRC and the results of listed companies classification issued by the CSRC, the Group falls in the industry of building and construction. The Group's operating information in the industry is analyzed below:

Analysis of operating information on the construction industry

1. Projects completed and accepted during the reporting period

☒ Applicable ☐ Not applicable

(Expressed in RMB'0,000)

Segment	Survey, design and consulting	Industrial projects	Civil buildings	Municipal works	Equipment manufacturing	Total
Number of projects	2,634	159	99	19	86	2,997
Total amount	139,259.34	301,287.89	449,793.51	19,432.31	77,590.88	987,363.93

☒ Applicable ☐ Not applicable

(Expressed in RMB'0,000)

Geography	Number of projects	Total amount
Home	2,972	985,483.05
Abroad	25	1,880.74
including:		
Southeast Asia	5	269.22
Central and Southern Africa	9	714.65
North Africa	4	71
Americas	1	25.49
Europe	3	367.95
Other regions	3	432.20
Total	2,997	987,363.79

Other explanation

☐ Applicable ☒ Not applicable

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

2. Projects in progress during the reporting period

☒ Applicable ☐ Not applicable

(Expressed in RMB'0,000)

Segment	House building	Infrastructure	Professional works	Decoration	Other	Total
Number of projects	3,290	696	420	134	451	4,991
Total amount	428,509.90	3,675,028.83	3,971,847.40	3,286,119.45	530,428.21	11,891,933.79

☒ Applicable ☐ Not applicable

(Expressed in RMB'0,000)

Geography	Number of projects	Total amount
Home	4,894	10,431,671.34
Abroad	97	1,460,262.49
including:		
Southeast Asia	34	1,060,068.89
Central and Southern Africa	33	31,671.82
Europe	7	75,959.73
Americas	5	256,295.62
North Africa	2	29,914.85
Other regions	16	6,351.58
Total	4,991	11,891,933.83

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

Other explanation

✓Applicable ☐Not applicable

Suspension, Interruption and Termination

The Company was performing all projects properly during the reporting period, except 42 partially suspended or terminated projects because of default of the investors, among other reasons. The total value of these projects was RMB247 million, including 4 construction projects amounting to RMB81 million; 36 survey, design and consultancy projects amounting to RMB153 million; and 2 equipment manufacturing projects amounting to RMB13 million.

(Expressed in RMB'0,000)

S/N	Project	Contract type	Contract value	Contract status	Reason
1	Ningxia Yinxing No. 1 well No. 14 mining zone return air inclined shaft construction line shaft sinking and drifting project (寧夏銀星一井14采區回風斜井施工線路井巷工程)	Construction	6,831.84	Terminated	The parties terminated the contract through negotiation due to risks.
2	LANJIGARH production capacity 4 million tons improvement project	Survey, design and consultancy	6,006	Suspended	At owner's fault
3	Other projects	/	11,818.52	/	/
Total		/	24,656.36	/	/

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

3. Major projects under construction

☒ Applicable ☐ Not applicable

(Expressed in RMB'0,000)

Project	Business model	Project value	Construction period	Percentage of completion	Revenue recognized in current period	Revenue recognized since inception	Cost incurred in current period	Cost incurred since inception	Cumulative amount recovered as at the end of current period	Project progress as expected?	Payment progress as expected?
Ningyong project	PPP	411,178	48 months	76.54%	57,381.94	288,575.37	53,672.72	222,074.01	269,718.17	Yes	Yes
Miyu project	PPP	1,064,763	48 months	46.76%	245,401.11	456,730.22	222,601.60	394,560.83	486,992.27	Yes	Yes
Mempawah Alumina Project, Indonesia	EPC	344,994	31 months	7.31%	10,796.69	25,209.18	8,871.39	20,432.68	45,161.45	Yes	Yes

Other explanations

☐ Applicable ☒ Not applicable

4. Cumulative new contract awards during the reporting period

☒ Applicable ☐ Not applicable

During the reporting period, 6,855 new contracts were awarded, with a combined value of RMB44,743,734,200.

Details are as followings:

		January to December 2021	
Type of Contracts		Number	Amount (RMB100 million)
Engineering survey, design and consultancy		4,942	25.38
Engineering construction	Industrial projects	820	158.7
	Civil buildings	267	175.24
	Highways and municipal works	74	54.8
Equipment manufacturing		752	33.32
Total		6,855	447.44

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

5. Orders on hand as of the end of the reporting period

☒Applicable ☐Not applicable

As at the end of the reporting period, all orders at hand were worth RMB64,280,904,300. Among the total, the combined value of those contracts that were signed but were yet to commence construction was RMB15,353,894,600, and the portion of CIPs that was yet to be completed was worth RMB48,928,616,100.

Details are as followings:

Type of Contracts		As of 31 December 2021	
		Number	Amount (RMB100 million)
Engineering survey, design and consultancy		3,485	24.96
Engineering construction	Industrial projects	825	164.92
	Civil buildings	398	211.49
	Highways and municipal works	136	211.63
Equipment manufacturing		543	29.81
Total		5,387	642.81

Other explanations

☐Applicable ☒Not applicable

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

6. Other explanations

✓Applicable ☐Not applicable

(1) *Main projects under financing contract mode*

(Expressed in RMB100M)

S/N	Project	Total investment	Ownership Note 1	Total investment since inception Note 2	Project progress
1	Yunnan Miyu Expressway	230.51	53.8%	122.45	Normal progress

Note 1: According to the requirements and the provisions of the contract for the construction of Yunnan Miyu Expressway, the Company, together with Chinalco Southwest Construction, Sixth Metallurgical Company, Kunming Survey and Design Institute, subsidiaries of the Company, and members of other consortia, will make a total investment of no more than RMB2.765 billion in Miyu Company, the project vehicle, in the form of capital increase. Upon completion of the investment, the Company, together with Chinalco Southwest Construction, Sixth Metallurgical Company, Kunming Survey and Design Institute, will have a combined 53.8% stake in Miyu Company. RMB1.288 billion has been invested as scheduled to date.

Note 2: The total investment since inception refer to the amounts of Jian'an and other investments completed by the project company as of the end of 2021, respectively.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(2) Qualifications obtained during the reporting period

During the reporting period, Chalieco held 229 qualifications, encompassing prospecting, design, construction, costing and supervision, among them, there are 1 Grade A comprehensive qualification for engineering design, 2 Grade A comprehensive qualifications for prospecting, 11 Grade A qualifications for design, 16 Grade A special qualifications, 3 extra-grade qualifications for general contract and 23 Level-1 qualifications. All qualifications are in use properly and all conditions required to maintain the qualifications are sound. A list of qualifications newly obtained in 2021 is provided as follows:

Company	Qualification	Content	Certificate No.	Date of issue	Date of maturity
Chalieco	Grade A comprehensive qualification for engineering design	May undertake construction engineering design business of various industries and levels	A111003241-10/1	2021/6/4	2026/6/4
Changkan Institute	Grade B qualification for building industry (building construction) professional design	Grade B special engineering design business in the scope of architectural decoration engineering design, architectural curtain wall engineering design, light steel structure engineering design, building intelligent system design, lighting engineering design and fire protection facility engineering design	A243000345	2021/10/28	2026-10-28
Changkan Institute	Grade C qualification for building construction general contracting	May undertake the construction of following building projects: (1) Industrial and civil construction projects with a height of less than 50 meters; (2) Construction projects with a height of less than 70 meters; (3) Construction projects with a total floor area of less than 80,000 square meters; (4) Construction projects with a single span of less than 27 meters.	D243028429	2021/9/3	2024-12-05
Henan No.9 Metallurgical	Grade C roadbed construction professional contracting	May undertake the construction of subgrade, medium and small bridges and culverts, protection and drainage, and soft foundation treatment of highways below the Grade B standard.	D341016671	2021/9/2	2021/12/31

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

- (3) *Analysis of the percentage of construction project revenue in total revenue of the Company for the recent three years*

For details, please refer to analysis of the percentage of operating revenue of construction project in total revenue of the Company under “Section 3 Management Discussion and Analysis (Directors’ Report)” of this report.

- (4) *Composition analysis of construction project cost for the recent three years*

Major cost components of the construction segment for past three years are set forth below:

(Expressed in RMB'0,000)

Cost composition	2021		2020		2019	
	Amount	Percentage (%)	Amount	Percentage (%)	Amount	Percentage (%)
Subcontracting cost	943,455.01	56.10	911,959.50	55.71	1,038,429.55	55.22
Material and equipment cost	630,340.54	37.48	635,604.72	38.83	703,907.63	37.43
Labor cost	22,874.66	1.36	24,253.41	1.48	32,109.85	1.71
Other	85,135.40	5.06	65,017.72	3.97	106,216.71	5.65
Total	1,681,805.60	100.00	1,636,835.35	100.00	1,880,663.75	100.00

Changes in the cost of the construction and contracting segment of the Company over the past three years:

- ① Subcontracting cost, material and equipment cost accounted for about 93% in aggregate and remained relatively stable. As subcontracting cost, material and equipment cost were highly replaceable with each other, the Company made overall arrangement for contracting based on available resources and profit margin of sub – projects. The Company continuously summarized management experience and strengthened cost management to improve contract income;
- ② Other expenses included machinery usage fees, and accrued production safety fees, which accounted for a relatively low proportion of the total cost.

The Company’s subcontractors are divided into engineering subcontractors and labor service subcontractors. Depending on specific conditions, the Company may subcontract non-main part of the project to engineering subcontractors or labor service subcontractors. On the one hand, subcontracting improves the Company’s ability to undertake large-scale projects and the flexibility in contract performance. On the other hand, the ability to manage subcontractors and control subcontractor costs also affects the Company’s ability to perform contracts. The Company usually subcontracts about 50% of business of this segment. All large-scale engineering projects involve subcontractors. The overall gross margin of profit rate of the company’s engineering construction projects was 10.4%, 8.4% and 13.19% for 2019 to 2021 respectively.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

The Company strictly prohibits subcontracting by subcontractors and illegal subcontracting, and has carried out special inspections to ensure no subcontracting by subcontractors. In order to strengthen subcontractor quality management, the Company has established a relatively sound internal control system for subcontractor selection, and has adopted an admission mechanism to select subcontractors on a merit basis. Subcontractors are required to establish an effective quality management system and strictly implement the “Three Inspections” system, and adopt various measures such as grading inspection, special inspection and quality assessment to impose overall quality supervision and control over subcontracted projects. During the reporting period, the Company's engineering construction quality was generally under control and no quality incident at critical level or above occurred.

Through process control, the Company supervises subcontractors' performance in various aspects including progress, quality and safety, and timely completes the rectification of defects, sorts out completion documents, and on this basis ensures smooth completion acceptance. In terms of settlement with subcontractors, subcontractors are required to submit applications and relevant settlement data as agreed in the contract. Relevant timely confirms relevant data and conditions of the project and makes payment to subcontractors in strict accordance with prescribed procedures. During the reporting period, the project completion acceptance and settlement proceeded normally as agreed in the contract.

(5) *Particulars of financing arrangements*

At the end of the reporting period, the balance of financing through debt and equity instruments stood at RMB22.974 billion, including RMB18.021 billion in debt financing and RMB4.953 billion in equity financing. Total financing amount increased by RMB2.247 billion or 10.84% from that as at the end of 2020, mainly because the Company undertook Yunan Miyu Expressway project that increased financing of RMB3.1 billion in current year.

In terms of debt financing, the Company rolled out phase 1 ultra-short-term financing of RMB1 billion in the inter-bank market on 8 January 2021; the Company redeemed the above ultra-short-term financing on 7 February 2021.

In October 2021, the Company registered a debt financing plan of RMB1.6 billion with Beijing Financial Assets Exchange (北京金融資產交易所), and raised the first round of capital in the amount of RMB400 million, to be mature in 3 years.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(6) *Quality control system, execution standards, control measures, and overall evaluation*

The Company attached great importance to quality work. In 2021, with the Company's quality control system functioning normally and engineering quality generally under control, there was no quality incident all year round. The Company strictly implemented the national, industrial and local quality standards at all levels, and continuously improved its quality management through strengthening on-site quality management, creating benchmark projects, and promoting engineering excellence, to ensure the stability and order of the Company's quality work.

(7) *Operation of workplace safety system*

In 2021, the Company earnestly implemented the strategic plan of the CPC Central Committee on safe production and ecological civilization construction based on the principle of "strengthening the foundation, focusing on key points, and making up for weak links". By carrying out programs such as positive incentives and leadership assurance, the Company implemented list signing and performance evaluation under the principle of "one position with two responsibilities" for safety and environmental protection to effectively take on its responsibilities for workplace safety; the Company continuously facilitated the construction and effective operation of the CAHS system, CAHE system, and the hierarchical risk management and control system, furthering refined safety management; through comprehensive safety training and stronger safety supervision and inspection, the Company continuously enhanced safety management, personnel capacity building and risk control. In 2021, the Company enjoyed effectively operating workplace safety systems and stable production safety, with no material production safety incidents occurring all year round.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(VI) Investment Analysis

Overall analysis of equity investments

☒ Applicable ☐ Not applicable

As at 31 December 2021, the balance (original value) of long-term equity investment of the Company was RMB787,828,600, down RMB101,699,900 or 11.43% from the beginning of the year, mainly due to the Company's withdrawal of its investment of RMB99,000,000 in Qiaolv Fund, of which the provision for impairment of long-term equity investment was RMB48,218,600, substantially at the same level with that at the beginning of the year.

1. *Major equity investments*

☐ Applicable ☒ Not applicable

2. *Significant non-equity investments*

☐ Applicable ☒ Not applicable

3. *Financial assets measured at fair value*

☒ Applicable ☐ Not applicable

Item	Closing Balance	Opening Balance
Investment in Guizhou Aerospace Wujiang Electromechanical Equipment Co., Ltd.(貴州航天烏江機電設備有限責任公司)	15,185,887.93	15,489,065.86
Other	26,263,606.82	26,074,512.84
Total	41,449,494.75	41,563,578.70

(VII) Disposal of significant assets and equities

☐ Applicable ☒ Not applicable

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(VIII) Analysis of major subsidiaries, associates and joint ventures

✓Applicable ☐Not applicable

During the reporting period, particulars of the major subsidiaries of the Company are set out below:

(Expressed in RMB'0,000)

Company name	Business scope	Total assets	Net assets	Operating revenue	Net profit
SAMI	Engineering survey and design	133,002.70	61,993.71	47,016.00	1,599.41
GAMI	Engineering survey and design	223,666.04	55,189.88	33,831.41	-8,034.85
CINF	Engineering survey and design	252,997.65	106,338.50	154,907.40	5,610.17
CNPT	Engineering design and equipment manufacturing	192,588.69	3,223.17	70,782.62	-6,589.80
Changkan Institute	Engineering survey and design	119,767.92	28,728.48	100,307.18	-7,986.22
Kunming Survey and Design Institute	Engineering survey and design	124,453.20	40,321.80	125,779.18	4,219.58
Sixth Metallurgical Company	Building and construction	1,225,028.91	298,262.70	899,277.82	33,911.73
Ninth Metallurgical Company	Building and construction	942,297.23	213,263.54	524,187.91	9,988.96
Twelfth Metallurgical Company	Building and construction	422,161.55	41,419.89	211,567.72	2,838.85
Chalieco (Tianjin) Construction Co., Ltd.	Building and construction	157,006.25	19,847.29	60,044.17	137.19
Shandong Engineering	Building and construction	114,374.00	27,130.84	52,709.34	-7,749.36
China Aluminum Equipment	Trading and equipment procurement	83,392.99	-124,598.19	31,182.36	-102,989.37

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(IX) Particulars of structured entities controlled by the Company

☐Applicable ☒Not applicable

VI. DISCUSSION AND ANALYSIS OF FUTURE DEVELOPMENT OF THE COMPANY

(I) Industry landscape and trend

☒Applicable ☐Not applicable

1. Non-ferrous metal industry

Chinese non-ferrous metal industry over many years' development has ranked the first in the world in terms of production scale. The "14th Five-Year Plan" period is an important stage for China to move from a large producing country of non-ferrous metals to a strong producing country of non-ferrous metals. The non-ferrous metal industry will shift from scale and speed growth to high-quality development. New growth drivers of consumption should be cultivated, but enterprises have insufficient independent innovation capabilities. In particular, key basic materials, advanced basic processes, industrial technology foundations, and core basic components are still the most outstanding shortcomings restricting the development of this industry.

The consumption of major non-ferrous metal varieties in China will maintain a steady growth, but it will be lower than the growth rate of Chinese economy, especially with the advancement of "carbon peaking and carbon neutrality", it will suppress the expansion of traditional non-ferrous metal production capacity and investment in fixed assets, in particular in the aluminum sector. The ceiling of electrolytic aluminum production capacity and the overseas outsourcing of alumina production capacity have resulted in a sharp shrinking of domestic new projects. During the "14th Five-year Plan" period, the nonferrous metal industry will move from expansion – centric to optimization of the stock, containment of increase and active downsizing, from input of low – cost resources and elements to innovation-driven quality and efficiency improvement, high-quality growth, green growth and intelligent growth. Hence, the target market of the industry will undergo profound changes and the focus will shift from increase to the stock, from new construction to relocation, technical renovation, industrial upgrade and technical services, etc.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

2. Infrastructure industry

The development of China's construction industry passed its heyday during the "13th Five-Year Plan" period, and the overall development began to fluctuate, with changing demand and differentiating industry; there were obvious changes in business models, professional services, and technical requirements etc.

The growth rate of investment in the infrastructure sector is expected to grow steadily, and there is market space for new construction, improvements and upgrades. New infrastructure will become one of the prominent highlights. In the late stage of the COVID-19 pandemic and the early post-pandemic stage, in order to promote economic development, it is expected that there will be more market opportunities in infrastructure construction. There are many sub-sectors in the infrastructure field. In the field of government investment, given local debt and government operation efficiency, it is expected that the integrated model of financing, investment, construction and transportation will become a typical model in the future, and it will occupy a considerable percentage. At the same time, for infrastructure projects in this field, the government needs the contractor to provide more professional services, such as pre-planning and project operation and maintenance, and also partially undertake the functions of the government. Overall, the changes in the infrastructure sector are relatively small, and the space for traditional models in this area is relatively stable.

3. Municipal construction engineering industry

The real estate field develops fast over years, and currently, the urbanization rate of China is about 60%, compliant with the economic structure of China as a developing country. It's anticipated that by 2035, China's urbanization rate will surpass 70%, reaching the average urbanization level of developed countries. In the future mid-long term, the real estate field will steadily advance the urbanization and housing security system construction, with obvious adjustments to prefabricated buildings, full decoration models, and high-tech housing, and will continue to strengthen general contracting of projects, in which case, the traditional housing construction model will shrink. If traditional housing construction companies do not adjust their models, the market space will rapidly narrow.

In China, urban expansion and updating are accelerating in an all-round way. It is expected that in the med-long term, the construction of urban agglomerations integrating infrastructure and real estate will be the main battlefield for the market competition of backbone enterprises in the construction industry. In the development stage of urban agglomerations, cities need to be more closely connected, urban functions need to be redefined and adjusted, and cities need to be more efficient side. All three aspects will generate new demands for engineering construction, including new construction, construction product updating and improvement, industrial development and infrastructure support, TOD construction of high-speed rail and rail transit, construction of urban above-ground and underground space projects.

4. New infrastructure industry

With the continuous evolution and upgrading of social production and living patterns, the original infrastructure can hardly meet the needs of efficient operation of the society, and the demand for the construction of a new generation of infrastructure is growing. The new infrastructure, represented by digital infrastructure, is in its infancy and has a broad space for development.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

In 2020, the planned total investment in new infrastructure announced by eight provinces in China exceeded RMB33.83 trillion. Taking 5G as an example, according to the estimates by many institutions, the cumulative investment in 5G network construction in China will reach RMB1.2 trillion by 2025.

Every rise of industrial technology is accompanied by the construction of new infrastructure, which will lead to the reconstruction of traditional interest patterns, industrial systems and system culture. Currently, China's traditional population dividend is decreasing, but new infrastructure construction powered by innovation and exploration will lead to a new round of development dividends. Huge new infrastructure investment will bring unlimited opportunities to the construction market.

(II) Corporate development strategy

☒ Applicable ☐ Not applicable

1. Vision

Becoming China's first-class, non-ferrous metals engineering company with core competitiveness in the world.

2. Strategic positioning

Leader of non-ferrous metal industry technologies, the main force of non-ferrous engineering construction, the new force of infrastructure and civil engineering construction.

3. Development mindset

Rooted in non-ferrous industry, expand relevant industries, lead the industry with technology and innovation, improve international level, strengthen the business of survey, design and consultancy, improve project general contracting, perform technology industrialization, develop industrial aluminum, develop emerging industries, increase internal synergy and collaboration, embark on the road of intensive development, consolidate the leadership in non-ferrous industry technology and market, and realize the sustainable high-quality growth of the Company.

4. Business pattern

Focus on principal business, implement the company-wide "233" business development strategy, namely: driven by "technology + international", led by technological innovation, improve the international level; build the company-wide "3+3" business structure, strengthen our three core business segments, namely: survey, design and consultancy; non-ferrous metals and industrial projects general contracting; and infrastructure and civil works general contracting. Meanwhile, expand into three new business segments, namely: industrial aluminum; technology industrialization; and emerging industries.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(III) Operational plan

✓Applicable ☐Not applicable

Prospect for 2022

Guided by Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, the Company will thoroughly implement the essential resolutions of the 19th National Congress of the CPC and various plenary sessions of the 19th Central Committee of the CPC and the Central Economic Work Conference, loyally support the "Two Establishments", and adhere to the leadership of party building and innovation, accurately and comprehensively implement the new development concept, focus on the main responsibility and main business, vigorously implement the "14th Five-Year" development strategy, adhere to "one main, one special and one expansion"¹, and lay a good foundation for "quality and efficiency improvement, technological innovation, deepening reform, risk control, strengthening management, transformation and upgrading", make the main business stronger, the market bigger, the management better, and the brand famous, and fully promote the Company's connotative high-quality development.

1. To effectively improve quality and efficiency so as to ensure the accomplishment of annual goals

The Company will improve its position by further expanding the focus of quality and efficiency improvement from benefit growth to the improvement of quality, efficiency and performance.

By focusing on its main business, the Company will employ leading technology to enhance its core competence and expand the non-ferrous metal market with absolute technological advantages. The Company will also accelerate the development of its transformed businesses through model innovation, and actively explore the local civilian market.

The Company will effectively refine its project process management, focus on project cost control and improve project profitability.

The Company will strengthen capital budget management and improve capital turnover efficiency; further optimize financing structure, exercise strict control over financing scale and reduce financing costs; strengthen foreign exchange management, and actively respond to exchange rate fluctuation risks; and strengthen efforts in tax coordination and tax payment according to laws and regulations.

The Company will continue to optimize its employment structure, improve its labor productivity, promote the reform of remuneration distribution mechanism among all its member enterprises, and give priority to key positions and core talents in remuneration distribution, so as to motivate employees' enthusiasm for work.

1. "One Main": the Company will focus on strengthening its main business, consolidate the core position of its main business and continuously increase its market share to provide support for business performance and corporate growth. "One Special": the Company will endeavor to achieve professional development by providing special technologies and special services in special specialties, aiming to develop unique competitiveness and consolidate market competitive competence. "One Expansion": the Company will expand new increments of business development, and procure its member enterprises to achieve upgrading and development in various fields including new infrastructure, new energy and the transformation of new scientific and technological achievements while focusing on the diversification of their main business and capitalizing on their unique advantages.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

2. Technology innovation, core competence

The Company will carry out the “technology + international” development strategy, integrate various resources, enlarge innovation synergy and supports, strengthen the institutional innovation from research initiation to outcome industrialization, and form new advantages of technology innovation.

The Company will continue to enlarge the investment in scientific research, educate talents, expand channels, set up a competitive remuneration system, attract “leading technical talents”, increase the scientificity and accuracy of the promotion of research talents, select “scientific and technological cadres”, and implement sci-tech special rewards. The Company will speed up digitization and intelligentization. Key projects shall be delivered 30% or more digitally, to realize the visible traceability of production process, quantitative analysis of production costs and timely effective control, increase the refined management level of the Company; explore smart factory design model and industrial service model by virtue of Internet, cloud computing, big data and Internet of Things among other technologies applied in the production process.

3. Deepening reform, smooth initiation system

Continued reform. The Company will carry out the SOE reform 3-year plan of action, to ensure the high-quality accomplishment of reform tasks within the first half of 2022.

Initiation system. The Company will deepen the reform of labour, HR and distribution systems, motivate the market competitive vigour; improve the management team “tenure system and contract management”, and increase the quality of management team tenure system and contract management.

4. Transformation and upgrade, focus on strategy and improve brand

The Company will fully carry out the “233” development strategy, construct the “3+3” business structure, that is, three core business segments, namely: survey, design and consultancy; non-ferrous metals and industrial projects general contracting; and infrastructure and civil works general contracting; plus three expanded business segments, namely: industrial aluminum, technology industrialization and emerging industries.

Group control. The Company will differentiate corporate types, make differentiated examination on member entities, promote the synergy of design, survey and construction entities, and motivate operational vitality.

Cultivate overseas market. In addition to solidifying international non-ferrous metals market, the Company will cultivate the non-ferrous metals market, and build overseas bases in Southeast Asia, South Asia, Russian-speaking regions, and Africa.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

5. Strengthen management, increase capability

The Company will practise the 5C values management idea, improve operational quality, and continuously improve 7 indicators, i.e. new contract value, operating revenue, net profit, cash flow from operating activities, labour productivity, credit rating, national excellence rating.

Enhance project control. The Company will center on cost management, hold on the project “dual system” (project manager responsibility system and project cost accountability system), fully comb the reduction of controllable costs budget; fully promote the cost refined controls, realize the standardization and integration of project cost control; establish the project management full process control system covering pre-bid cost calculation, liability cost calculation, “dual system” responsibility letter signing, cost planning, process cost control, node cost analysis, completion cost examination and realization etc., 7 aspects of the whole process of project management control system, and continuously improve the project cost control level.

Speed up IT platform construction. The Company will actively promote project informatization, deepen financial system and business integration, ensure the full release of corporate IT system in 2022, and build the Company's headquarters into an operational control center and a financial information control center.

6. Risk control in the long run, prevent and mitigate all kinds of risks

Improve risk control system. The Company will perform the “Year of Compliance” construction, continuously strengthen the building of internal systems, enhance regular management level, unify the system, process and contract management standards, continue to optimize legal opinions, risk assessment reports, and typical contract templates, and realize the risk control grouping, systematization, institutionalization and standardization.

In 2022, the Company will work unremittingly to innovate and breakthrough, create new results, and push the Company to high-quality development.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(IV) Potential risks

✓Applicable ☐Not applicable

The Company is exposed to, inter alias, personnel health risk (COVID-19 risk), market change and market competition risks, debt risk, liquidity risk, operational benefit risk in the normal course of operations.

1. Personnel Health Risk (COVID-19 Risk)

In January 2020, COVID-19 outbreaks spread in China, and in February, spread across the world; so far in 2022, the pandemic is still not effectively controlled or mitigated. In particular, the Company's projects, especially those abroad, are seriously affected by the intensifying disease controls, for example, the production or construction process may be threatened by the risk of infections due to inadequate supply of anti-pandemic materials and staff flows, the main reason for which is the disease control measures abroad are not satisfactory, and it's hard to manage foreign employees, while in China the projects are rather dispersed, with a bigger flow of staff.

2. Market change and market competition risks

Affected by "energy consumption volume control and intensity control", "carbon peaking and carbon neutrality" among other national policies, Chinese non-ferrous metals industry construction market shrank sharply in 2021, and there were fewer new big construction projects; in civil market, although China's civil construction market size is stable, the concentration is increasing year after year, small and medium construction enterprises see narrowed survival space; civil market is featured by government-invested projects, all levels of governments exert huge protection for local state-owned construction engineering enterprises, but lay multiple barriers for enterprises coming from other places; the construction projects led by governments are mostly in the investment-financing-construction mode, where the contractor shall invest or advance the cost of construction, so there is a certain difficulty in development, affected by the scale of investment.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

3. Debt risk

Affected by COVID-19 pandemic, some projects are postponed or failed to commence, the owners face huge pressure of capital requirements; in addition, the suppliers require the payment for materials and equipment, so the Company has larger pressure of debt repayment.

4. Liquidity Risk

The major feature of liquidity risk is high occupation of “receivables and inventory” and low turnover speed due to the characteristics of the industry, which poses certain pressure on funds.

5. Operational benefit risk

In recent years, the Company speeds up transformation and upgrading, without established scale benefits in new fields or new markets; the Company and other construction enterprises are impacted by low entry threshold to the construction market, overcapacity of traditional manufacturing industry, shrinking new investments, fierce competition in construction market; and in addition, COVID-19 outbreaks abroad in the past two years, recurrent epidemic in China, significant rise of bulk material cost, low-profit margin of entire construction industry. The projects may not have satisfactory economic benefits, and the gross margin may be low, among other risks.

(V) Others

☐Applicable ☒Not applicable

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

VII. OTHER DISCLOSURES

(I) Principal business

The Group is principally engaged in engineering design and consulting, engineering and construction contracting, equipment manufacturing and trading. Details of major subsidiaries, associates and joint ventures of the Company are set out in Note “7. EQUITY IN OTHER ENTITIES”.

(II) Business review

A review of the Group's business during the year, potential risks, discussion of future business development and the relationships with employees, customers and suppliers are set out in “Section 3 Management Discussion and Analysis (Directors' Report)”, and the Group's financial and operating conditions are also analyzed using key financial indicators. For information on compliance with relevant laws and regulations that have a significant impact on the Group, please refer to “Section 4 Corporate Governance (Corporate Governance Report)” of this report. For the social responsibility and environmental protection matters of the Group during the year, please refer to “Section 5 Environmental and Social Responsibility” of this report. For details of major events affecting the Group, please refer to “Section 6 Key Matters” of this report.

(III) Explanation on the major relationship between the Company and its employees, customers, suppliers and other parties with significant influence on the Company

1. **The Company and its employees.** The Company is always protecting employees' interests, committed to establishing “sunny, sincere, simple, and friendly” relationships with employees, implementing employees care projects, taking care of the living and working conditions of basic workers, offering fair career opportunities and competitive salary system and cozy interpersonal environment for employees. The Company fights against forced labour, harassment and abuse, strictly implements the Labour Law, the Labour Contract Law, the Social Insurance Law, and the Law on the Protection of Women's Rights and Interests, respects the human rights of employees, and prohibits child labour and forced labour. In 2021, there were no major labour disputes or human rights complaints. The Company offers employees fair wages and benefits, and pays social insurance and provident funds for employees in accordance with the law. The Company establishes a corporate annuity system to provide further pension security for retired employees. The Company vigorously protects employees' life and health, actively performs disease controls, and makes employee health examinations, special physical examinations for female employees and special positions. The Company insists on democratic management, and gives full play to the role of corporate democratic management, democratic supervision and democratic decision-making in the basic form of workers' congress. The Company actively carries out rational suggestion activities. In 2021, there were 322 rational suggestions, more than 200 of which were accepted.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

The Company provides a growth platform for employees for their self-development and continuous improvement, and insists on guiding employees with advanced concepts and cultivating employees with excellent work styles. The Company insists on building a management team composed of old, middle-aged and young members, and makes good use of cadres of all ages. The Company selects young cadres from grassroots level, key positions, front-line of reform and development, complex environments, and difficult areas, whose performance are recognized by the majority of cadres and employees, and pays attention to strengthening the training of outstanding young cadres. The Company provides employees with a broad development platform and space, develops a series of employee training programs and performance appraisal methods, specifying the training methods. The Company implements “targeted training” online and offline specific to pain points and difficulties; optimizes the organizational system, curriculum system, support system and evaluation system, to make the entire training work more systematic and structured; takes different teaching modes for different themes and contents, to improve the training effect; strengthens the pre-class review, and scientifically standardizes the conditions and scope of trainees according to the training objectives. In 2021, there were totally 29,971 trainees, with total investment amount of RMB8.8062 million, and total length of training time 123,629.8 hours, of which, the average length of training for female employees is 21.49 hours, and the average length of training for male employees is 33.64 hours. 79.32% female employees were trained, while 90.56% male employees were trained.

2. **The Company and its customers.** The Group takes the provision of satisfactory products and services to its customers and the creation of values for its customers as its corporate faith. As such, we have established a result-oriented executive team to develop an executive culture which takes customer value as its faith. We have been dedicated to continuously upgrading our products and services for maximizing our customers' values, enabling the mutual benefits and mutual development between the Group and its customers.
3. **The Company and its suppliers.** The Group insists on the principle of “selecting the best, retaining the excellence and eliminating the inferiors, cooperating for mutual benefits and mutual development” when managing suppliers through an e-commerce procurement platform, which has preliminarily established a database of procurement costs and categorized management on varieties of procurement, built and improved the appraisal system, incentive mechanism and elimination mechanism of suppliers, and promoted the consistent improvement on the supplying capacity of suppliers so as to realize the mutual benefits and mutual development between the Group and its suppliers.
4. **The Company, the governments and large enterprises as business partners.** In respect of the development of the domestic business, the Group focuses on the reinforcement of a profound connection with local governments and well-known enterprises. The Group underwent in-depth exchanges with local governments in cities such as Zhengzhou, Changsha, Xianyang, Guiyang, Luoyang, and Kunming on business cooperation, and established strategic partnerships with enterprises including TJAD Group and China Gezhouba Group Company Limited on areas such as transport, municipality and aluminum applications to launch cooperation.
5. **The Group's donation.**

The Group made charity and other donation totaling RMB1.554 million for the reporting period.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(IV) The Company's environmental policy and performance

For details, please refer to "Section 5 Environmental and Social Responsibility" of this report.

(V) Material events after the end of the financial year

None.

(VI) Issue of shares during the reporting period

During the year, the Company did not issue any class of shares.

(VII) Issue of bonds by the Company during the reporting period

On 8 January, 2021, the Company issued the first ultra-short-term financing of RMB 1 billion in the interbank market in 2021. On February 7, 2021, the Company redeemed the ultra-short-term financing above.

The Company registered a debt financing plan of RMB1.6 billion in Beijing Financial Asset Exchange in October 2021, and has issued the first installment of RMB400 million, with a term of three years.

(VIII) Results

The audited results of the Company and its subsidiaries for the year ended 31 December 2021 are set out in the consolidated income statement enclosed hereinafter. The financial positions of the Company and its subsidiaries for the year ended 31 December 2021 are set out in the consolidated balance sheet enclosed hereinafter. The consolidated cash flows of the Company and its subsidiaries for the year ended 31 December 2021 are set out in the consolidated statement of cash flows enclosed hereinafter. Results performance, discussion and analysis of important factors affecting results and financial position of the Group for the year are set out in Section 5 "Operating Results Discussion and Analysis" of this annual report.

(IX) Property, plant and equipment

Details of movements in property, plant and equipment of the Company and its subsidiaries for the year are set out in Note 16 "Fixed assets" under "5. Notes to the Consolidated Financial Statements".

(X) Share capital

As of 31 December 2021, the total share capital of the Company amounted to RMB2,959,066,667 shares, which was divided into 2,959,066,667 shares (comprising 399,476,000 H Shares and 2,559,590,667 A Shares), at a par value of RMB1.00 each.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(XI) Taxation

Current and deferred income tax

The tax expense during this reporting period comprises current and deferred income tax. Income tax is recognized in the income statement, except for the taxation relating to items recognized in other comprehensive income or directly in equity, which is recognized in equity. In this case, the income tax is also recognized in other comprehensive income or directly in equity, respectively.

The current income tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Company and its subsidiaries/associates operate and generate taxable income. The management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation, and makes provision for tax payable based on tax amounts expected to be paid to the tax authorities where applicable.

Deferred income tax is determined using the liability method, and provision for deferred income tax is made on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. However, deferred income tax liabilities are not recognized if they arise from the initial recognition of goodwill; deferred income tax is not recognized if it arises from the initial recognition of an asset or a liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profits or losses. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred income tax assets are recognized to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized. Deferred income tax is provided on temporary differences arising from the Group's investments in subsidiaries and associates, while the deferred income tax liability is not recognized where there is evidence that the timing of the reversal of the temporary differences is controlled by the Group and it is probable that such temporary differences will not be reversed in the foreseeable future.

Deferred income tax assets and deferred income tax liabilities are shown on a net basis after offsetting when meeting all the following conditions: the Group has the legally enforceable right to settle current income tax assets and current income tax liabilities; and the deferred income tax assets and liabilities relate to the income tax levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

Value-added tax

Sales of goods of the Group are subject to VAT. VAT payable is determined by the taxable sales calculated by applying the applicable tax rates on the taxable revenue arising from sales of goods and provision of service after deducting deductible input VAT of the period. The VAT rate for the sales of goods business of the Group is 13% throughout 2021. The applicable VAT rate for the modern service industry in 2021, including design, is 6%.

According to the Circular on “Comprehensively Promoting the Pilot Program of the Collection of Value-added Tax in Lieu of Business Tax” (Cai Shui [2016] No.36) jointly released by the Ministry of Finance and the State Administration of Taxation, effective from 1 May 2016, the Group's revenue from providing construction services is subject to a VAT at a tax rate of 9% throughout 2021.

(XII) Reserves

The details of movements in reserves of the Group and the Company during the year are set out in the accompanying consolidated financial statements, namely the “CONSOLIDATED STATEMENT OF CHANGES IN EQUITY OF SHAREHOLDERS” and the “STATEMENT OF CHANGES IN EQUITY OF SHAREHOLDERS OF THE PARENT” of this report, respectively. Under the “Company Law of the People's Republic of China”, after deducting the statutory surplus, the undistributed profit can be used for dividend distribution. As at 31 December 2021, the undistributed profit of the parent company amounted to RMB-51,199,827.53.

(XIII) Events after the balance sheet date

There was no other significant subsequent event after 31 December 2021.

(XIV) Profit distribution and proposed dividend

For details, please refer to “XV. Proposal for Profit Distribution or for Converting Capital Reserve into Share Capital” under “Section 4 Corporate Governance (Corporate Governance Report)” of this report.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(XV) Purchase, redemption or sale of listed securities

Neither the Company nor any of its subsidiaries purchased, sold or redeemed any of the Company's listed securities during the year ended 31 December 2021.

(XVI) Use of proceeds

The total amount of proceeds from the Listing of H Shares of the Company was HK\$1.318 billion. As of 31 December 2014, our proceeds had been fully utilized. Such proceeds were primarily used in the industrialization of the Company and overseas engineering projects in compliance with the use of proceeds as disclosed in the Prospectus.

The total amount of proceeds from the Listing of A Shares of the Company was RMB1.021 billion. After deducting various issuance expenses of approximately RMB41 million, the net proceeds was RMB980 million. As of 31 December 2019, our proceeds had been fully utilized. Such proceeds was used to supplement the operating capital of the construction contracting business in compliance with the use of proceeds as disclosed in the Prospectus.

(XVII) Major customers and suppliers

For details, please refer to the analysis as set out in the "Particulars of major customers and major suppliers" under "Section 3 Management Discussion and Analysis (Directors' Report)" of this report.

(XVIII) Bank borrowings and other borrowings

Details of bank borrowings and other borrowings of the Company and its subsidiaries as at 31 December 2021 are set out in "(XXIV) Short-term Borrowings" and "(XXXIV) Long-term Borrowings" under "V. NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS" in the consolidated financial statements.

(XIX) Equity-linked agreements

During the year ended 31 December 2021, the Group did not enter into any equity-linked agreements that would or could result in the issue of Shares by the Company.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(XX) List of Directors, Supervisors and senior management

For details, please refer to “VIII. Particulars of Directors, Supervisors and Senior Management” under “Section 4 Corporate Governance (Corporate Governance Report)” of this report.

(XXI) Directors' and Supervisors' service contracts

The Company entered into service contracts with each Director, the details of which mainly consist of: (1) the term from 23 May 2017 to the time of conclusion of the general meeting for electing the directors to the next session of the Board of Directors (Mr. GUI Weihua was elected to be independent non-executive director of the Company on 27 February 2018, effective from 27 February 2018; Mr. WU Zhiqiang was elected to be executive director of the Company on 16 April 2019, effective from 16 April 2019 to 11 February 2022; and Mr. LIU Jing was elected to be executive director of the Company on 25 February 2021, effective from 25 February 2021); and (2) termination subject to the terms of each contract.

For compliance with relevant regulations and the Articles of Associations and the provisions of arbitration, the Company had entered into contracts with each Supervisor.

Save as disclosed above, none of Directors entered into a service contract with the Company which was not determinable by the Company within one year without payment of compensation (other than statutory compensation).

(XXII) Remuneration of Directors, Supervisors and senior management

For details, please refer to “VIII. Particulars of Directors, Supervisors and Senior Management” under “Section 4 Corporate Governance (Corporate Governance Report)” of this report.

(XXIII) Material interests of the Directors and Supervisors in contracts, transactions or arrangements

During the reporting period, none of Directors, Supervisors or other connected entities had directly or indirectly entered into significant contracts, transactions or arrangements in which they have material interests with the Company.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(XXIV) Directors' interests in competing business

During 2021, none of Directors or their Associates had any competing interest in any business which competes or may compete, directly or indirectly, with the Group's business.

(XXV) Resignation of directors

For details, please refer to "VIII. Particulars of Directors, Supervisors and Senior Management" under "Section 4 Corporate Governance (Corporate Governance Report)" of this report.

(XXVI) Director's, Supervisors' and senior management's interests and short positions in Shares, underlying Shares and debentures

As at 31 December 2021, none of the Directors, Supervisors and senior management of the Company had any interest or short position in the Shares, underlying Shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) which was required to be notified to the Company and the HKEX pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which any such Director, Supervisor, and senior management was taken or deemed to have under such provisions of the SFO), or which are required, pursuant to Section 352 of the SFO, to be entered in the register referred to therein, or which are required, pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers, to be notified to the Company and the HKEX.

(XXVII) Directors' insurance

As of the date of this report, the Company has purchased effective directors insurance for (existing and resigned) Directors.

(XXVIII) Permitted indemnity

The Company has arranged sufficient and proper insurance for Directors to better perform their responsibilities and risk aversion pursuant to the provision A.1.8 of the Corporate Governance Code as contained in Appendix 14 to the HKEX Listing Rules. Save for the above, during the financial year of 2021 and as at the date of this annual report, the Company has no other provision of permitted indemnity (as defined in Section 470 of the Companies Ordinance).

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(XXIX) Directors' interests

At no time during the year and up to the date of this annual report was the Company or any of its subsidiaries or holding company or any subsidiaries of the Company's holding company a party to any arrangements to enable the Directors to acquire benefits by means of the acquisition of Shares or debentures of the Company or any other body corporate, and none of the Directors or their spouse and children under the age of 18 was given any right to subscribe the shares or debt securities of the Company or other bodies corporate, or had exercised any such rights.

(XXX) Financial, business and family relationships among the Board, Supervisors and senior management

As at the date of this report, there were no financial, business or family relationships among members of the Board, Supervisors and senior management of the Company.

(XXXI) Share incentives acquired by Directors, Supervisors and senior management

In October 2013, the Company implemented share appreciation rights scheme targeting on specific Directors, senior management and management officers and key employees who made significant influence on the development of the Company. As of October 2017, the initial grant scheme became invalid. The Company has not again granted new share appreciation rights and any other forms of share incentive.

(XXXII) Substantial Shareholders' interests in Shares

For details, please refer to "III. PARTICULARS OF SHAREHOLDERS AND EFFECTIVE CONTROLLER" under "Section 7 Changes in Ordinary Shares and Shareholders" of this report.

(XXXIII) Compliance with OFAC undertakings

During the Listing of the Company, an undertaking was made to the HKEX by the Company that the Company would not use any proceeds from the Global Offering and any other fund raised through the HKEX for any projects conducted in the country or region (originally Cuba, Sudan, North Korea, Iran, Syria or Myanmar, now updated to: Cuba, Crimea, North Korea, Iran or Syria) subject to broad and comprehensive economic sanctions by the United States or other jurisdictions (the "OFAC Undertakings"). During the reporting period, the Company issued the list of relevant sanctioned countries to the business department to forbid the Company from conducting any business with the sanctioned countries, regions or organizations and organized training on relevant legal knowledge. Hence, the Directors of the Company confirmed that the Company strictly complied with the OFAC Undertakings since the time of H shares listing. Since 2 June 2012, there is no application of any such proceed in any of the country or region subject to broad and comprehensive economic sanctions by the United States or other jurisdictions, and the Company will continue to honour OFAC commitments in the its day-to-day operations.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(XXXIV) Management contracts

During 2021, the Company did not sign or enter into any contract in respect of the management and administration of all or any substantial part of its business.

(XXXV) Connected transactions

For details, please refer to "XII. Significant Related Party (Connected) Transactions" under "Section 6 Key Matters" of this report.

(XXXVI) Compliance with Non-competition Agreement

For details, please refer to "The influence on the Company, the countermeasures taken, the progress of solution and the subsequent solution plan in event that the controlling shareholder, actual controller or other entity under its control is engaged in the same or similar business as the Company, or in a business competing with the Company, or there is any major change in such competition" under "Section 4 Corporate Governance (Corporate Governance Report)" of this report.

(XXXVII) Directors' and Supervisors' rights to acquire Shares or debentures

As at the end of 2021, no right to acquire shares in or debentures of the Company or any other body corporate were granted to any Directors or Supervisors or their associates by the Company or any of its subsidiaries or were any such rights exercised by them.

(XXXVIII) Retirement and employees benefit scheme

For details, please refer to "XIV. Particulars of Employees of the Parent Company and Major Subsidiaries at the End of Reporting Period" under "Section 4 Corporate Governance (Corporate Governance Report)" of this report.

(XXXIX) Compliance with Corporate Governance Codes

For details, please refer to "II. Company's Compliance with the Corporate Governance Codes" under "Section 4 Corporate Governance (Corporate Governance Report)" of this report.

(XL) Board diversification policy

For details, please refer to "VII. Board of Directors" under "Section 4 Corporate Governance (Corporate Governance Report)" of this report.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(XLI) Compliance with major laws and regulations

For details, please refer to “IV. Compliance With Major Laws and Regulations and Promoting the Construction of Corporate Legal Governance” under “Section 4 Corporate Governance (Corporate Governance Report)” of this report.

(XLII) Promoting the Construction of Corporate Legal Governance

For details, please refer to “IV. Compliance With Major Laws and Regulations and Promoting the Construction of Corporate Legal Governance” under “Section 4 Corporate Governance (Corporate Governance Report)” of this report.

(XLIII) Revision to the Articles of Association during the Reporting Period

For details, please refer to “XXI. Others” under “Section 4 Corporate Governance (Corporate Governance Report)” of this report.

(XLIV) Audit Committee

The audit committee of the Company has reviewed the 2021 annual results and the consolidated financial statements of the Group for the year ended 31 December 2021 prepared in accordance with the China Accounting Standards for Business Enterprises.

(XLV) Auditor's remuneration

For details on the auditor's remuneration, see “VI. Information on Appointment and Removal of the Auditor” under “Section 6 Key Matters” of this report.

(XLVI) Five-year financial summary

For details of the summary of the Group's operating results and assets for the past five financial years, please refer to “Section 11 Five-year Result Summary” of this report.

SECTION 3 MANAGEMENT DISCUSSION AND ANALYSIS (DIRECTORS' REPORT)

(XLVII) Taxes on dividends

For details of the Company's cash dividend proposal for the reporting period, please refer to "XV. Proposal for Profit Distribution or for Converting Capital Reserve into Share Capital" under "Section 4 Corporate Governance (Corporate Governance Report)" of this report.

Under the "Corporate Income Tax Law of the People's Republic of China" effective from 1 January 2008, the Company shall withhold corporate income tax at the rate of 10% when distributing cash dividends to non-resident corporate shareholders listed in shareholder register for H shares. Any H shares registered in the name of non-individual shareholders (including HKSCC Nominee Limited, other nominees, agents or trustees, other organizations and groups) are deemed held by non-resident corporate shareholders. Therefore, dividends due to these shareholders are subject to the withholding of corporate income tax. Any H-share shareholder intending to change their shareholder status should inquire about relevant formalities with their agents or trustees.

The Company will withhold individual income tax at the rate of 10% if an individual shareholder of H shares is a resident of Hong Kong or Macao, or is a resident of other countries that have entered into a 10% tax treaty with the PRC on cash dividends distributed to them. If the individual shareholder of H shares is a resident of a country that has entered into a tax agreement with China with a dividend tax rate of less than 10%, the Company will withhold the individual income tax on dividends at a tax rate of 10%. In respect of this, if any relevant individual shareholder of H shares intends to apply for the refund of excess tax withheld ("excess amount"), the Company may apply for the agreed preferential tax rate on his/her behalf pursuant to the tax treaty, provided that relevant shareholder shall within the specified time period, submit to the H share register of the Company the certificate set forth in the tax treaty notice, and subject to the audit and approval of the competent tax authority, the Company will offer assistance in the refund of the excess amount. If the individual shareholder of H shares is a resident of a country that has entered into a tax treaty with the PRC with a tax rate of more than 10% but less than 20% on dividends, the Company will withhold individual income tax at the actual tax rate specified in the tax treaty. The Company will ultimately withhold individual income tax at 20% if the individual shareholder of H shares is a resident of a country that has entered into a tax treaty with the PRC with a 20% tax rate on dividends, or a resident of a country that has not entered into any tax treaty with the PRC, or in any other circumstance.

According to the Notice on Issues Concerning the Policy of Differentiated Individual Income Taxes on Dividends and Bonuses of Listed Companies (Cai Shui [2015] No.101) (《關於上市公司股息紅利差別化個人所得稅政策有關問題的通知》(財稅[2015]101號)), where an individual acquired stocks in a listed company on the public offering and transfer market, dividends income of the individual are fully included in his/her taxable income if he/she has held the stocks within one month (inclusive), are 50% included in his/her taxable income on a provisional basis if he/she has held the stocks for longer than one month and up to one year (individual income tax rate is 20% for the above cases), and are exempted from individual income tax if he/she has held the stocks for longer than one year.

VIII. FAILURE TO MAKE DISCLOSURE UNDER THE STANDARDS DUE TO THE INAPPLICABILITY OF THE STANDARDS TO THE COMPANY, STATE SECRETS, TRADE SECRETES AND OTHER SPECIAL REASONS

☐Applicable ☒Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

I. PARTICULARS IN RELATION TO CORPORATE GOVERNANCE

✓ Applicable ☐ Not applicable

During the reporting period, the Company continuously standardized its corporate governance and improved its corporate system in strict accordance with the Company Law of the People's Republic of China, the Securities Law of the People's Republic of China, relevant regulations of the CSRC and other regulatory authorities, as well as relevant requirements of SSE and the Stock Exchange. The general meeting, the Board of Directors and its special committees and Board of Supervisors operated in accordance with laws and regulations and in an effective manner. The Company exercises its authority pursuant to the requirements under Rule D.3.1 of the Corporate Governance Code. The work of information disclosure and investor relations gradually strengthened, and the level of corporate governance further improved.

(I) Complete and perfect the system of corporate governance structure

As a listed company with "A+H" shares, the Company strictly follows the Company Law, the SSE Listing Rules, the Listing Rules of the Stock Exchange and other relevant regulations, and has developed a corporate governance system with the Articles of Association as the core, and the Rules of Procedure for the Board of Directors of the Company (《公司董事會議事規則》), the Rules of Procedure for the Strategy Committee of the Board of Directors of the Company (《公司董事會戰略委員會議事規則》), the Rules of Procedure for the Risk Management Committee of the Board of Directors of the Company (《公司董事會風險管理委員會議事規則》), the Rules of Procedure for the Audit Committee of the Board of Directors of the Company (《公司董事會審核委員會議事規則》), the Rules of Procedure for the Remuneration Committee of the Board of Directors of the Company (《公司董事會薪酬委員會議事規則》), the Rules of Procedure for the Nomination Committee of the Board of Directors of the Company (《公司董事會提名委員會議事規則》), the Work System for the Independent Directors of the Company (《公司獨立董事工作制度》), the Work System on Annual Report for the Independent Directors of the Company (《公司獨立董事年報工作制度》) and the Work System for the Secretary of the Board of Directors of the Company (《公司董事會秘書工作制度》) as the basic systems. In 2021, in accordance with the latest laws and regulations promulgated and revised in the capital market, the Company made amendments to the Articles of Association, the Rules of Procedure for the Shareholders' General Meeting of the Company (《公司股東大會議事規則》) and the Rules of Procedure for the Board of Directors of the Company (《公司董事會議事規則》), and newly formulated the Administrative Measures for the Authorization of the Board of Directors of the Company, which further improved the corporate governance system and ensured that the Board of Directors have rules to follow, act in accordance with the rules, and operate in a standardized manner.

As at the end of 2021, the Company had 32 subsidiaries that established their board of directors. The Company sent 7 full-time directors to 3 important subsidiaries. 6 important subsidiaries of the Company had developed the Implementing Plan for the Rights and Powers of the Board of Directors; 8 important subsidiaries had developed the list of matters and the proceeding rules for the communist party committee to discuss major operation and management issues in advance.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(II) Give full play to the important role of Three Meetings

The Company further facilitated the implementation of “Three Meetings and One Level”, which the Company must not only pay attention to the top level, but also push forward effective strategy control and resource allocation. It is also necessary to know the limit, do a good job in risk control, audit and supervision, and achieve “true participation, legitimate decision-making and genuine supervision”. In 2021, the Company convened 6 Board meetings, reviewed and approved 39 proposals; convened 5 meetings of the board of supervisors, reviewed and approved 12 proposals; convened 3 shareholders’ general meetings, reviewed and approved 19 proposals.

(III) Complete information disclosure in accordance with laws and regulations

The Company’s disclosure form conformed to easy-to-read, concise and clear disclosure principles, and the Company enhanced the readability and understandability of information from users’ perspective to further improve the quality of information disclosure. During the year, the Company drafted and issued more than 105 announcements on the SSE website, as well as 120 announcements in Chinese and 49 announcements in English on the HKEX website.

(IV) Enhance investor and media relationship management

The Company attaches great importance to the maintenance and development of investor relations, continuously innovates and expands investor communication channels, and responds to investor demands in a timely manner. In 2021, through the SSE Roadshow Center, the Company held 2 annual and semi-annual results briefings, participated in 1 investor collective reception day, received 1 field survey by institutional investors, and responded to 47 investor questions through the SSE e-interactive platform, and answered and replied to investors’ valid calls more than 30 times.

Whether the Company’s corporate governance deviated materially from relevant CSRC requirements?
If any, provide the reason

☐Applicable ☒Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

II. COMPLIANCE WITH THE CORPORATE GOVERNANCE CODE

(I) Company's Compliance with the Corporate Governance Code

The Company adhered to maintain a high standard of corporate governance as a listed company on the HKEX. During the year ended 31 December 2021, the Company has complied with all code provisions (excluding provision A.2.1) set out in the Corporate Governance Code contained in Appendix 14 to the HKEX Listing Rules, and adopted in its best practice proposed therein as appropriate.

(II) Risk Management and Internal Control of the Company

The Company attaches great importance to internal control. Pursuant to the SASAC requirements stated in the Notice Concerning the Internal Control System Building and Supervision for Central Enterprises in 2021 (《關於做好2021年中央企業內部控制體系建設與監督工作有關事項的通知》), and based on the Basic Standards for Corporate Internal Control (《企業內部控制基本規範》) and supporting guidelines and other external regulatory documents, the Company planned and deployed in a centralised manner, fully carried out the internal control system building, organised the re-perfection of corporate internal control system at both HQ level and subsidiary level, and formulated the Chaliece Internal Control Manual (《中鋁國際工程股份有限公司內部控制管理手冊》) with its own characteristics. The updated manual contains 6 chapters, with a total of 27 sections including 27 first-level processes, 117 second-level processes and 59 third-level processes. The internal control key points and processes substantially covers the key business operations and key management procedures of the Company, and complies with the requirements stated in the Guidelines for the Application of Corporate Internal Control (《企業內部控制應用指引》), playing a fundamental and directive role to the reasonable assurance of the legal compliance, asset security, as well as the truthfulness and completeness of financial report and related information, the increase of the operational efficiency and effects, and the promotion of the realization of corporate development strategy.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

The Company believes that good internal control plays an important role in corporate operations. The Company has established Audit Committee and Risk Management Committee to perform internal audit functions and conduct analysis and independent assessments on the adequacy and effectiveness of the risk management and internal control systems of the Company. The Board is dedicated to establishing effective internal control systems, and implementing and supervising internal control. The Board is ultimately responsible for the internal control, risk management and compliance management of the Company. It makes decisions for internal control, risk management and compliance policies and reviews the effectiveness of such policies, as well as monitoring the design, implementation and supervision of risk management and internal control systems by the Board. The Board also approves the internal control assessment report, risk assessment and management report for the year, reviews the resources, employees' qualifications and experiences in respect of the accounting, internal audit and financial reporting functions, as well as the adequacy of training courses received by employees and the relevant budget. The Board continues to monitor the risk management and internal control systems of the Company. In 2021, the risk management and internal control systems of the Company and its subsidiaries, including financial control, operation control and compliance control, were reviewed by the Board.

In 2021, the Company conducted 1 internal control test but did not identify any material and significant deficiency. The Board considers that such risk management and control systems are adequate and effective.

In terms of rules and regulations, the Company consecutively formulated various internal control measures of the Company, such as the Measures on Auditing and Administration of Internal Control of China Aluminum International Engineering Corporation Limited (《中鋁國際工程股份有限公司內部控制審計管理辦法》), the Measures on Assessment and Management of Corporate Risks of China Aluminum International Engineering Corporation Limited (《中鋁國際工程股份有限公司企業風險評估管理辦法》), the Measures on Assessment, Control and Administration of Risk Management of China Aluminum International Engineering Corporation Limited (《中鋁國際工程股份有限公司風險管理測評及監控管理辦法》), the Implementation of Articles of the Decision-making System on "Three Important Matters and One Big Concern" of Chalco (《中鋁國際「三重一大」決策制度實施細則》), the Regulations on Documentation for Internal Auditing of China Aluminum International Engineering Corporation Limited (《中鋁國際工程股份有限公司內部審計檔案工作規範》) and the Internal Control Manual of China Aluminum International Engineering Corporation Limited (《中鋁國際工程股份有限公司內部控制手冊》).

The effective implementation of the internal systems ensured the orderly development of the Company's operating and management activities as well as effective risks control, safeguarded the security and integrity of the Company's property and guaranteed the realization of the Company's operating and management objectives.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

In terms of organizational structure, the Company has established the department of legal affairs and risk control which is responsible for risk management, evaluation on internal control, audit for construction projects, review of economic responsibilities and other specific audit works. The functional arms or operations units including business, finance and investment of the Company and all our subsidiaries assume primary responsibilities in their respective internal control systems. Specialized organizations or departments including risk management department and the internal control and compliance department are responsible for the coordination and planning as well as organization and implementation before and during risk management and internal control and compliance; internal audit organizations or departments are responsible for supervising and carrying out periodic auditing on the effectiveness of risk management, internal control and compliance, and investigating the accountability for any behavior violating the requirements.

In terms of the disclosure of inside information, the Company has established standardized control procedures to collect, organize, review and disclose information. The Company will ensure that the information is kept confidential before it is fully disclosed to the public. For information that is difficult to keep confidential, the Company will disclose it in a timely manner to effectively protect the benefit of investors and stakeholders.

Based on the results of risk management and internal control in 2021, no material failure or weakness was found in respect of risk monitoring of the Company. The management procedures of financial reports and information disclosure of the Company is in strict compliance with the regulations under the Listing Rules of the SSE and the HKEX. The Board considers that the risk management and internal control of the Company is in effective operation according to its assessment.

Each department of the Company is able to smoothly submit to the Board any data which is needed to be submitted. Being the most senior point of contact to each department, the president of the Company is able to effectively report to the Board in relation to the operation of each department, and to coordinate the demands of each department and carry out relevant mobilization to facilitate reasonable decision making within the Company. Accordingly, any possible significant matter (if disclosure to the market is required) identified by the staff can be reported to the management of the Company in a timely, accurate and effective manner, and the decisions made by the management of the Company can be carried out accurately and timely under supervision.

Through the assessment of the internal control systems of the Group by the Audit Committee and internal control department, the Board was of the view that, in 2021 and as at the date of publication of this report, the Company continues to have comprehensive internal control and risk management systems including corporate governance, operations, investment, finance and administration and human resources, and such internal control and risk management systems are in full effect.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

In 2021, the Company adopted the following measures to implement risk management and internal control:

Based on the practical situation in operations, the Company collected relevant information internally and externally and systematically sorted out business and management flows. It carried out in – depth analysis on every risk event in the risk event database from the perspectives including policies, systems and implementation, organizational responsibilities, human resources, finance and daily operations. Through reorganization, identification and screening of risk events, the annual risk event database was eventually established. Each department of the Company determined the significant risks of the Company after comprehensive rating upon prudent investigation and assessment. Corresponding preventive measures against significant risks were formulated by the Company under the regular monthly supervision by the responsible department. The Company summarized the monitoring of significant risk on a monthly, quarterly and annual basis, and reported to Chinalco the risk management statement.

The Company integrated comprehensive risk and internal control into operational management procedures in daily operations to achieve prevention beforehand and control on procedures, continuously improved various systems, strengthened the risk control on projects and enhanced risk prevention capability by various tasks including conducting due diligence and project evaluation. At the same time, risk events were monitored by the Company on monthly and quarterly basis respectively in order to supervise and manage the monitoring and control of the significant risks and the rectification of the deficiencies of internal control. The risk awareness of all relevant departments in our daily operations is raised, guaranteeing the smooth production and operation of the Company.

The Company conducts one internal control assessment each year, in which the annual and interim internal control are assessed respectively. The Company selected member entities to carry out internal control and independent reviews, requiring each member entity to develop the rectification measures for any problem found. In 2021, the Board has obtained the confirmation from the management in respect of the effectiveness of the risk management and internal control systems of the Company.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

In order to review and continuously enhance the effectiveness of the internal control systems of the Company, in 2022, the Board and the Audit Committee have heard and discussed the 2021 internal control assessment report of the Company while the Board and the Risk Management Committee have heard and discussed the report of the overall risk management of the Company. Such internal control systems aim at managing, but not eliminating, risk related to failure of achieving business goals and the Board only provides reasonable but not absolute assurance on the absence of material misstatement or loss.

III. SPECIFIC MEASURES OF THE CONTROLLING SHAREHOLDER OR THE ACTUAL CONTROLLER TO ENSURE THE INDEPENDENCE IN THE COMPANY'S ASSETS, STAFF, FINANCE, ORGANIZATION, OPERATION AND OTHERS, AS WELL AS THE SOLUTIONS, WORK PROGRESS AND SUBSEQUENT WORK PLAN TO AFFECT SUCH INDEPENDENCE.

☐ Applicable ☒ Not applicable

The influence on the Company, the countermeasures taken, the progress of solution and the subsequent solution plan in event that the controlling shareholder, actual controller or other entity under its control is engaged in the same or similar business as the Company, or in a business competing with the Company, or there is any major change in such competition.

☒ Applicable ☐ Not applicable

The Company entered into a non-competition agreement with Chinalco on 2 June 2012, pursuant to which, Chinalco provided certain non-competition undertakings to the Company and granted the options to seek any new business opportunities and options for acquisition and the relevant pre-emptive rights to the Company. Pursuant to the agreement, the independent non-executive Directors are responsible for reviewing and considering whether or not to exercise such options and pre-emptive rights and are entitled, on behalf of the Company, to review the implementation of the undertakings under the agreement on an annual basis.

In June 2016, Chinalco submitted the Commitment Letter in Relation to Competitions (《關於同業競爭的承諾函》) and has committed, as required by Chalieco, that the businesses of Henan Huahui Nonferrous Engineering Design Co., Ltd. (河南華慧有色工程設計有限公司) and Kunkan Institute (昆勘院) which are related to Chalieco would be transferred or entrusted to Chalieco or non-related third parties by ways of equity transfer, entrusted management or other appropriate methods within five years from the date of the signing of the commitment letter.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

In September 2017, the commitment letter submitted by Chinalco mainly contains: (1) Henan Huahui Nonferrous Engineering Design Co., Ltd., CHALCO Shanxi Industry Service Co., Ltd. (山西中鋁工業服務有限公司), Henan Zhongzhou Aluminum Construction Co., Ltd. (河南中州鋁建設有限公司), Yuxi Feiya Mining Industry Development Management Co., Ltd. (玉溪飛亞礦業開發管理有限責任公司) and Shanxi Aluminum Plant Design Institute Co., Ltd. (山西鋁廠設計院有限公司) (the “Five Companies”) will complete its business which coincides with the engineering survey, consultancy, design, construction, engineering contracting and relevant equipment manufacturing business engaged by Chalieco and/or its subsidiaries with customers which are third parties outside the organization of Chinalco as soon as possible. From the date of the submission of this commitment letter, the Five Companies will no longer launch new business in respect of the aforementioned aspects with third parties outside the organization of Chinalco, and only provide related services to companies within the organization of Chinalco. (2) The Five Companies will no longer upgrade its existing qualifications related to business which coincides with the engineering survey, consultancy, design, construction, engineering contracting and relevant equipment manufacturing business engaged by Chalieco and/or its subsidiaries. (3) Chinalco will be in strict compliance with the Non-competition Agreement signed by Aluminum Corporation of China and China Aluminum International Engineering Corporation Limited”. (4) If in breach of the aforesaid commitments occurs, Chinalco would accept full responsibility incurred thereunder, and would thereby fully indemnify or compensate all the direct or indirect loss incurred to Chalieco and other Shareholders of Chalieco. If the Five Companies breaches this commitment by executing new business contracts which coincide with the engineering survey, consultancy, design, construction, engineering contracting and relevant equipment manufacturing business engaged by Chalieco and/or its subsidiaries with third parties outside the organization of Chinalco, Chalieco would be entitled, from the date of such business contracts become effective, to reduce the amount equal to the amount of such business contracts from unpaid but payable profit distribution in cash corresponding to Shares of Chalieco held by the Company until the elimination of the event of breach of this commitment.

During the reporting period, the independent non-executive Directors had reviewed the implementation of the Non-competition Agreement (《避免同業競爭協議》) and confirmed that Chinalco had been in full compliance with the agreement and there was no breach by Chinalco. During the reporting period, there is no breach of the aforesaid agreement or commitment by Chinalco.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

IV. COMPLIANCE WITH MAJOR LAWS AND REGULATIONS AND PROMOTING THE CONSTRUCTION OF CORPORATE LEGAL GOVERNANCE

(I) Company's Compliance with Major Laws and Regulations

The operation of the Group has always complied with the national and local laws and regulations. It upholds honesty and integrity, and performs its social responsibility. The Company and its staffs have exercised their best endeavors to strictly follow the applicable rules, laws and industry standards. The Directors are not aware of any breach of laws or regulations which have a significant impact on the Group, nor are they aware of any cases of corruption, bribery, extortion, fraud or money laundering involving the Group in 2021.

The Company continues to review its current systems and procedures, emphasizes and strives to comply with the Civil Code of the People's Republic of China (《中華人民共和國民法典》), the Company Law of the People's Republic of China (《中華人民共和國公司法》), the Securities Law of the People's Republic of China (《中華人民共和國證券法》), the Listing Rules of the SSE and of the HKEX, the SFO, the applicable Hong Kong Companies Ordinance and other relevant laws and regulations which have a significant impact on the Company. The Company is committed to safeguard the interest of Shareholders, improve its corporate governance and enhance the functions of the Board.

The Group insists on reinforcing the risk control throughout the whole life cycle and building of legal governance. It ensures a 100% legal review for contracts, regulatory systems and major decisions of its subsidiaries. It broadens legal knowledge throughout the Company and fosters all staff to build up the concept of acting by law and to develop a habit of doing business according to principles. The Company establishes a "legal culture" based on the core principles of decision-making, operating and managing according to law. Legal governance becomes the core concept of the Company and all staff follows voluntarily. The concept and means of legal governance are realized in every aspect of corporate governance, operation and management.

(II) Promoting the Construction of Corporate Legal Governance

The Company implements the primary responsible person requirement of corporate legal governance, strengthens the review of legality and compliance of major decisions; as well as facilitates the scientific and standardized decisions of the Company. It also develops legality and compliance assessment and actively promotes the implementation of regulatory system in order to ensure each operation management part of the enterprises is granted rules and a system basis to follow. The efficiency of business process across departments, professions and levels can thus be enhanced. It also reinforces legal support and capability to uphold its rights in accordance with the law and pursues legal risk management to avoid prosecution. The Company strengthens its case management and avoids increasing of cases and at the same time reducing the caseload, which would effectively reduce the Company-involved number of lawsuits. The Company focuses its risk management on major sectors by integrating the supervisory resources. It also integrates the supervisory resources, strengthens management and control of construction projects and does its utmost to prevent corruption risk.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

V. GENERAL MEETING

Session of meeting	Convening date	Websites designated for disclosure of resolutions	Resolutions disclosing date	Resolutions
The first extraordinary general meeting of China Aluminum International Engineering Corporation Limited in 2021	25 Feb 2021	www.sse.com.cn, www.hkexnews.hk	26 Feb 2021 (A shares), 25 Feb 2021 (H shares)	The meeting considered and passed 1 motion in total: the Motion on Electing Mr. Liu Jing as Executive Director of the Third Board of Directors of the Company, as detailed in the relevant announcement.
The annual general meeting of China Aluminum International Engineering Corporation Limited in 2022	25 Jun 2021	www.sse.com.cn, www.hkexnews.hk	26 Jun 2021 (A shares), 25 Jun 2021 (H shares)	The meeting considered and passed 13 motions in total: the Motion to Consider the 2020 Annual Work Report of the Board of Directors of the Company; the Motion to Consider the 2020 Annual Work Report of the Board of Supervisors of the Company; the Motion to Consider the 2020 Annual Final Accounting Report of the Company; the Motion to Consider the 2020 Annual Profit Distribution Plan of the Company; the Motion to Consider the 2021 Annual Capital Expenditure Plan of the Company; the Motion to Consider the 2020 Annual Impairment Provision of the Company; the Motion to Consider the Annual Non-related Transaction Guarantee Plan; the Motion to Consider the Guarantee for Wancheng from a Controlled Subsidiary; the Motion to Consider the 2021 Annual Directors and Supervisors Emolument Scheme of the Company; the Motion to Consider the Reappointment of Auditors of the Company; the Motion to Update the Financial Service Agreement; the Motion to Apply with the General Meeting for the General Authorization for the Board of Directors to Issue Shares; and the Motion on the General Authorization of the Company to Issue Domestic/Overseas Debt Financing Instrument, as detailed in relevant announcements.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Session of meeting	Convening date	Websites designated for disclosure of resolutions	Resolutions disclosing date	Resolutions
The second extraordinary general meeting of China Aluminum International Engineering Corporation Limited in 2021	30 Dec 2021	www.sse.com.cn, www.hkexnews.hk	31 Dec 2021 (A shares), 30 Dec 2021 (H shares)	The meeting considered and passed 5 motions in total: the Motion to Modify the Articles of Association; the Motion to Modify the Proceeding Rules of the General Meeting; the Motion to Modify the Proceeding Rules of the Board of Directors; the Motion to Modify the Proceeding Rules of the Board of Supervisors; and the Motion to Update the Factoring Cooperation Framework Agreement, as detailed in relevant announcements.

The holders of preferred shares with restored voting rights request to convene an extraordinary general meeting

☐ Applicable ☒ Not applicable

Particulars of the general meeting

☐ Applicable ☒ Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

VI. COMMUNICATIONS WITH SHAREHOLDERS

The Company chronically, highly and continuously maintains and develops relationship with its investors, delivers the information of the Company to public in a timely and efficient manner, enhances transparency of the information regarding the Company and builds an effective channel for it to maintain the relationship with investors.

(I) Shareholders' Rights

The Board is committed to maintaining communications with Shareholders and discloses significant development of the Company to Shareholders and investors when appropriate. The annual general meeting of the Company provides a good communication opportunity between Shareholders and the Board. In the event of convening an annual general meeting, the convenor shall give a written notice 20 clear business days before the date of the meeting. In the event of convening an extraordinary general meeting, the convenor shall give a written notice 15 days or 10 clear business days before the meeting (whichever is earlier), informing all the registered shareholders of the matters proposed for consideration at the meeting and the date and place of the meeting ("Business Day(s)" refers to the day when the Hong Kong Stock Exchange opens for securities trading).

Shareholders individually or jointly holding more than 10% of shares of the Company are entitled to request the Board in writing to convene an extraordinary general meeting. The Board shall, in accordance with the requirements of laws, administrative regulations and the Articles of Association, reply with a written opinion to state whether it agrees or disagrees to convene an extraordinary general meeting within 10 days upon receipt of the request.

If the Board agrees to convene the extraordinary general meeting, it shall issue a notice of convening the general meeting within 5 days upon after the date of the resolution of the Board. Any changes made to the original request in the notice shall be agreed by the relevant shareholders. If the Board disagrees to convene the extraordinary general meeting, or does not reply within 10 days upon receipt of the request, shareholders individually or jointly holding more than 10% of the shares of the Company are entitled to request the Supervisory Board in writing to convene an extraordinary general meeting.

If the Supervisory Board agrees to convene the extraordinary general meeting, it shall issue a notice of convening the general meeting within 5 days upon receipt of the request. Any changes made to the original proposals in the notice shall be agreed by the relevant shareholders.

If the Supervisory Board does not issue the notice of general meeting within the prescribed period, it shall be deemed as the Supervisory Board not convening and not holding the general meeting. Then the shareholders individually or jointly holding more than 10% of the shares of the Company for more than 90 consecutive days are entitled to convene and hold the meeting by themselves.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(II) Enquiry of and Communication with Shareholders

In order to maintain channels for effective communication, the Company publishes its address, e-mail address, phone number and fax number in detail on its website and in its regular reports. If any enquiry, the shareholders may contact the Company through the above channels, and the Company will respond to all enquiries on a timely and proper basis.

The Board welcomes Shareholders' views and encourages them to attend general meetings in order to propose any concerns they might have directly to the Board or the management. The chairman of the Board and the chairmen of all Committees usually attend the annual general meeting and other general meetings to address questions raised by the Shareholders.

Detailed procedures of voting and resolutions voted by way of poll have been set out in the circular previously dispatched to the Shareholders.

VII. THE BOARD OF DIRECTORS

(I) Composition of the Board of Directors

As of the reporting date, the Board of Directors consisted of 6 directors, including 2 executive directors, 1 non-executive director and 3 independent non-executive directors.

The profile details of the Directors as at the date of this report are set out in "VIII. Particulars of Directors, Supervisors and Senior Management" under "Section 4 Corporate Governance (Corporate Governance Report)" of this annual report. There are no financial, business, family or other material or relevant relationship among members of the Board. The structure of the Board is well balanced with each Director possessing sound knowledge, experience and expertise relevant to the business operation and development of the Group. All Directors are deeply aware of their joint and several liabilities to the Shareholders.

The Company has appointed adequate number of duly qualified independent non-executive Directors as per the CSRC requirements, the SSE requirements and the HKEX Listing Rules. Since the Listing of the Company, the Board has been in compliance with the requirements of the HKEX Listing Rules regarding the appointment of at least three independent non-executive Directors, and that the appointed independent non-executive Directors shall represent at least one-third of the members of the Board. The qualifications of the three independent non-executive Directors of the Company are in full compliance with the requirements under Rule 3.5.4 of the Guidelines for the Self-Regulatory Supervision of Listed Companies on the Shanghai Stock Exchange No. 1 - Standardized Operation (《上海證券交易所上市公司自律監管指南第1號—規範運作》) and Rules 3.10(1) and (2) of the HKEX Listing Rules. In addition, the Company has received annual confirmations from each independent non-executive Director as to their independence pursuant to Rule 3.13 of the HKEX Listing Rules. The Company, therefore, considered all independent non-executive Directors to be in compliance with the independence requirements as set out in the SSE Listing Rules and the HKEX Listing Rules.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

As of the reporting date, and within the reporting period, the list of members of the Company's Board of Directors is set out in "VIII. Particulars of Directors, Supervisors and Senior Management" under "Section 4 Corporate Governance (Corporate Governance Report)" of this report.

Pursuant to the latest amendments and requirement of the Corporate Governance Code and the Corporate Governance Report in the HKEX Listing Rules, the Company prepared the Board Diversification Policy of China Aluminum International Engineering Corporation Limited (《中鋁國際工程股份有限公司董事會成員多元化政策》) and submitted the same to the Nomination Committee for consideration and approval.

(II) Functions and Powers Exercised by the Board of Directors and the Management

The rights and duties of the Board of Directors and the management have been clearly provided in the Articles of Association, which aims to ensure adequate check and balance mechanism for good corporate governance and internal control.

The Board is responsible for deciding the Company's business and investment plans as well as the establishment of the Company's internal management structure, formulating the Company's basic management system, determining other material business and administrative matters of the Company and monitoring the performance of the management.

Under the leadership of the president (who is also an executive director), the management of the Company is responsible for implementing the resolutions approved by the Board and administering the daily operation and management of the Company.

(III) Appointment and Re-election of Directors

Pursuant to the Articles of Association, Directors shall be elected at general meetings with a term of office of not more than three years for each session and may offer themselves for re-election. The Company has implemented a set of effective procedures for the appointment of new Directors. Nomination of new Directors shall be first considered by the Nomination Committee, whose recommendations will then be given to the Board for consideration. All candidates are subject to election and approval at general meetings.

The Company has entered into service contracts with each of the Directors (including non-executive Directors). Such service contracts commence from the date when the Company's general meeting decides to elect him/her as a director of the Company, and expire when the Company convenes the general meeting for the election of directors of the next board of directors, or may be terminated according to the terms of the contract.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(IV) Corporate Governance Functions of the Board of Directors

The Company's corporate governance function is performed by the Board. The corporate governance function is to develop and review the Company's policies and practices on corporate governance in order to comply with Corporate Governance Code and other legal or regulatory requirements, and make recommendations to the Board; to oversee the induction program for new Directors; to review and oversee the training and continuous professional development for the Directors and senior management; to develop, review and oversee the code of conduct and compliance manual (if any) applicable to employees and the directors; and to review the Company's disclosure in the Corporate Governance Report.

(V) Board Diversification Policy

Believing the diversification of the composition of the Board would be helpful in enhancing the Company's performance, the Company formulated the Board Diversification Policy of China Aluminum International Engineering Corporation Limited in August 2013, which stipulates that the diversification of the composition of the Board takes account of a variety of aspects when determining the composition of the Board, including but not limited to age, cultural and educational background, professional experience, skill and knowledge. The Board made all the appointments based on talents and had considered the benefits, which would be brought about by diversifying the composition of the Board under the objective conditions, when selecting the candidates. The Board will select its members based on an array of diversification standards, including but not limited to age, cultural and educational background, professional experience, skill and knowledge.

The Nomination Committee will disclose the composition of the Board in the Corporate Governance Report on an annual basis and will oversee the enforcement of the Policy. The Nomination Committee will review the policy when appropriate to ensure its effectiveness. It will also discuss and propose any necessary revisions to the Board for consideration and approval.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

VIII. PARTICULARS OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

(I) Particulars of changes in shareholding and emoluments of existing and resigned directors, supervisors and senior management during the reporting period

✓ Applicable □ Not applicable

											(Shares)
Name	Position (Note)	Gender	Age	Starting date of term	Ending date of term	Number of shares held at the beginning of the year	Number of shares held at the end of the year	Change in shares during the year	Reason for change	Total emoluments before tax received from the Company within the reporting period (RMB'0,000)	Received compensation from related parties of the Company or not?
LI Yihua	Chairman Non-executive Director	M	43	2022/2/11 2017/5/23	Re-elected/dismissed at Board meeting and at general meeting	0	0	0	N/A	0	No
LIU Jing	Executive Director President	M	53	2021/2/25 2021/1/20	Appointed/dismissed at Board meeting and at general meeting	0	0	0	N/A	59.34	No
WU Jianqiang	Former Chairman and Executive Director	M	57	2019/4/16	2022/2/11	0	0	0	N/A	70.08	No
WANG Jun	Former Non-executive Director	M	51	2017/5/23	2021/1/20	0	0	0	N/A	0	No
WU Zhigang	Former Executive Director and Vice President	M	61	2017/5/23	2021/1/20	0	0	0	N/A	0	No
ZHANG Jian	Executive Director	M	50	2017/5/23	Re-elected/dismissed at general meeting	0	0	0	N/A	57.80	No
	Chief Financial Officer			2015/5/20	Re-elected/dismissed at Board meeting						
GUI Weihua	Board Secretary Independent Non-executive Director	M	71	2019/5/31 2018/2/27	/ Re-elected/dismissed at general meeting	0	0	0	N/A	14.29	No
CHEUNG Hung Kwong	Independent Non-executive Director	M	54	2017/5/23	Re-elected/dismissed at general meeting	0	0	0	N/A	14.29	No
FU Jun	Independent Non-executive Director	M	50	2017/5/23	Re-elected/dismissed at general meeting	0	0	0	N/A	14.29	No
FAN Guangsheng	Chairman of the Supervisory Committee, Employee Representative Supervisor	M	54	2019/3/26	Elected/dismissed by Board of Supervisors and employee representative meeting	0	0	0	N/A	78.30	No
OU Xiaowu	Supervisor	M	57	2017/5/23	Re-elected/dismissed at general meeting	0	0	0	N/A	0	Yes
LI Wei	Supervisor	M	51	2017/5/23	Re-elected/dismissed at general meeting	0	0	0	N/A	0	Yes
WANG Yonghong	Vice President	M	58	2018/10/9	Re-elected/dismissed at Board meeting	0	0	0	N/A	68.67	No
LIU Ruiping	Vice President	M	53	2018/10/9	Re-elected/dismissed at Board meeting	0	0	0	N/A	85.25	No
MA Ning	Vice President	M	58	2021/1/20	Re-elected/dismissed at Board meeting	0	0	0	N/A	50.81	No
BI Xiaoge	Vice President	M	54	2018/10/9	Re-elected/dismissed at Board meeting	0	0	0	N/A	64.57	No
Total	/	/	/	/	/	0	0	0	/	577.69	/

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
LI Yihua	aged 43, is currently Party secretary, chairman, non-executive Director, member of Strategy Committee, member and chairman of the Risk Management Committee, member of Nomination Committee of the Company. He is an economist with a master's degree in business administration. He worked as the project manager in Yunnan Huawen Hengye Investment Company (雲南華文恒業投資公司) and served as the director of legal affairs and deputy head of investment and development department in Yunnan Sino-platinum Metals Co., Ltd. (雲南貴研鎢業股份有限公司), the deputy director of the corporate development department in Yunnan Tin Group (Holding) Co., Ltd. (雲南錫業集團（控股）有限責任公司), the secretary to board of directors, and the director of the securities department in Yunnan Tin Co., Ltd. (雲南錫業股份有限公司), the vice president of Yunnan Investment Holding Group Co., Ltd. (雲南投資控股集團有限責任公司), the deputy director, director of the legal department, general manager of capital operation department of Chinalco (中鋁集團), general manager, deputy party secretary and director of Chinalco Assets Operation and Management Co., Ltd (中鋁資產經營管理有限公司), chairman of Chinalco Industrial Services Company Limited (中鋁工業服務有限公司), director of China Aluminum Group High-end Manufacturing Co., Ltd. (中國鋁業集團高端製造股份有限公司), director of China Aluminum International Trading Corporation Limited (中鋁國際貿易有限公司) etc. At present, Mr. LI also acts as director of Aluminum Corporation of China Iron Ore Holdings Limited (中鋁鐵礦控股有限公司).

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
LIU Jing	aged 53, is currently an executive Director, president, deputy Party secretary of the Company. He is a senior engineer, graduated from the university with a bachelor degree in engineering. He worked as a technician, the deputy director and director of civil construction department, manager of Trinidad and Tobago projects, deputy chief engineer, deputy director of design management department and director of project management department of Shenyang Aluminum & Magnesium Engineering & Research Institute (瀋陽鋁鎂設計研究院); assistant general manager, deputy general manager, executive director, general manager and secretary of party committee of SAMI; deputy leader of the preparation team, chairman, president, secretary of party committee and secretary of the disciplinary committee of Chinalco Overseas Development Co., Ltd. (中鋁海外發展有限公司) etc. Mr. LIU Jing is also concurrently a director of Aluminum Corporation of China Iron Ore Holdings Limited (中鋁鐵礦控股有限公司), and chairman of CNPT.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
WU Jianqiang	aged 57, is the chairman, Party secretary, executive director, member and chairman of Risk Management Committee, member of the Nomination Committee and member and chairman of the Strategy Committee of the Company. He is an excellent senior engineer and Ph.D. graduate in economics. He worked as the dispatcher, director of Dispatching Room, assistant of the factory director and deputy director of Shanxi Aluminum Factory (山西鋁廠), deputy general manager of Shanxi Branch of Chalco (中國鋁業山西分公司), deputy general manager and party secretary of Shanxi Huaze Aluminum and Electricity Co., Ltd (山西華澤鋁電有限公司), chairman, general manager, and Party secretary of Shanxi Huasheng Aluminum Co., Ltd (山西華聖鋁業有限公司), general manager of Guangxi Branch of Chalco (中國鋁業廣西分公司), vice president, president, director, and deputy party secretary of China Copper Industry Co., Ltd (中國銅業有限公司), deputy general manager and general manager of Copper Business Division of Chalco (now Chinalco); general manager of Copper Business Division of Chinalco (中鋁集團銅事業部), president, director, and deputy party secretary of Yunnan Copper Industry (Group) Co., Ltd (雲南銅業(集團)有限公司), chairman, director, party secretary of Yunnan Copper Co., Ltd. (雲南銅業股份有限公司), chairman of China Aluminum Mineral Resources Co., Ltd. (中鋁礦產資源有限公司), etc. Mr. WU currently acts as assistant to the general manager of Chinalco, general manager of Chinalco Strategic Investment Dept (Tendering/Bidding Management and Supervision Office); chairman of Chinalco Tendering Co., Ltd. (中鋁招標有限公司). Within the reporting period, Mr. Wu submitted the resignation letter to the Board of Directors due to job transfer, and resigned as chairman, director of the Company, member and chairman of Risk Management Committee, member of Nomination Committee, member and chairman of Strategy Committee under the Board of Directors. The resignation became effective since 11 February 2022. Upon resignation, Mr. Wu no longer holds any position in the Company.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
WANG Jun	aged 51, was a non-executive Director, and a member of the Audit Committee and Remuneration Committee of the Company during the reporting period. He is a senior accountant with a master's degree. He has been accredited the SIFM qualification certificate and obtained the qualification of Chartered Institute of Management Accountants (CIMA) and has also been admitted to the National Training Program for Accounting Army Leading Backup (全國會計領軍(後備)人才培養工程). He has worked in Chalco (now Chinalco) as the general representative of the Peru office and has served in various positions, including the executive Director, the chief financial officer and the secretary to the Board of the Company; the chief financial officer and the manager of the finance department of China Aluminum Mineral Resources Co., Ltd. (中鋁礦產資源有限公司); a director of China Aluminum Insurance Broker (Beijing) Co. Ltd (中鋁保險經紀(北京)股份有限公司); a director of Chinalco Asset Management Company (中鋁資產經營管理公司); a supervisor of Chalco; and the deputy chief accountant, the director of the finance department and the director of capital operation department of Chinalco (中鋁集團), the chairman of the board of supervisors of China Rare Earth Holdings Limited (中國稀有稀土股份有限公司), a director of Chinalco Capital Holdings Limited (中鋁控股有限公司), etc. He is also a director and the president of Aluminum Corporation of China Overseas Holdings Limited (中鋁海外控股有限公司), a director of Chinalco Finance Company Limited, a director of Dongfang Yuanjing Company (東方遠景公司), a director of Yangguang Yuanjing Company (陽光遠景公司) and the chief financial officer, secretary to the Board of Directors (company secretary) of Chalco. Currently, Mr. WANG also acts as chairman of Beijing National Aluminum Investment Management Co. Ltd. (北京國鋁投資管理有限公司), legal representative and a member of investment decision making committee of Beijing China Adjustment Chalco Copper Industry Development Fund (Limited Partnership) (北京國調中鋁銅產業發展基金(有限合夥)). Mr. WANG resigned as an executive Director, a member of the Audit Committee and the Remuneration Committee of the Company on 20 January 2021 due to work transfer. Upon resignation, Mr. WANG no longer holds any position in the Company.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
WU Zhigang	aged 61, executive Director and the vice president of the Company during the reporting period. He is a senior engineer with a college degree. Mr. WU served as the deputy manager of Machinery Engineering Company in Sixth Metallurgical Construction Company of China Nonferrous Metals Industry Co., Ltd. (中國有色金屬工業第六冶金建設公司機械化工程公司), the chief deputy manager and the standing deputy manager of its Hainan Branch, the deputy general manager and the general manager in Sixth Metallurgical Construction Company of China Nonferrous Metals Industry Co., Ltd. and an executive director and the general manager of Sixth Metallurgical Company, as well as the executive director of the China Aluminum International Investment Management (Shanghai) Co., Ltd. (中鋁國際投資管理(上海)有限公司), etc. Mr. WU resigned as an executive Director and vice president of the Company on 20 January 2021 as he reached his retirement age. Upon resignation, Mr. WU no longer holds any position in the Company.
ZHANG Jian	aged 50, is currently the executive Director, the chief financial officer, the secretary to the Board and the joint secretary of the Company. He is an accountant graduating with a master's degree in business administration. Mr. ZHANG served as the deputy section head and head of the cost estimation section of the finance department of Henan Branch of Chalco (中國鋁業河南分公司); the business manager of the general office, deputy manager of the accounting office and deputy manager of the budget analysis office in the finance department of Chalco (中國鋁業); the deputy manager of the finance department (taking charge of the work) of Zhongzhou Branch of Chalco (中國鋁業中州分公司); the deputy manager of the accounting office (taking charge of the work) and the manager of the general management office of the finance department of Chalco (中國鋁業); the chief financial officer of Chalco Hong Kong Limited (中國鋁業香港有限公司), chief legal adviser of the Company, director of Chinalco Finance Co., Ltd. (中鋁財務有限責任公司) etc. Mr. ZHANG is also executive director of Chinalco International Investment Management (Shanghai) Co., Ltd. (中鋁國際投資管理(上海)有限公司).

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Name	Main work experience
GUI Weihua	aged 71, is currently independent non-executive Director of the Company, member and chairman of the Remuneration Committee, member of the Nomination Committee, member of Strategy Committee and a member of Audit Committee. He holds a master's degree. Mr. GUI is member of the Chinese Academy of Engineering, an academic leader among the Innovative Research Groups of the National Natural Science Foundation of China (國家自然科學基金創新研究群體), the head of the Nonferrous Metallurgical Automation, the Ministry of Education's Engineering Research Center (有色冶金自動化教育部工程研究中心), the head of the Institute of Information Science and Engineering, Central South University (中南大學信息科學與工程學院控制工程研究所), as well as a professor and instructor of doctorate students of Central South University (中南大學). Currently, Mr. GUI also acts as independent non-executive director of China Nerin Engineering Co.,Ltd. (中國瑞林工程技術有限公司).
CHEUNG Hung Kwong	aged 54, is currently independent non-executive Director of the Company, member and the chairman of Audit Committee. He is a member of the American Institute of Certified Public Accountants and a chartered financial analyst qualified by the CFA Institute. Mr. CHEUNG obtained master's degree and served as a manager of the transaction service department/ audit department of PricewaterhouseCoopers. He served as the chief financial officer of the Boto Company Limited (寶途集團), and the chief financial officer, company secretary and joint authorized representative of the Kaisa Group Holdings Ltd. (佳兆業集團控股有限公司). Mr. CHEUNG also served as a vice president of Ganglong China Property Group Limited (港龍中國地產集團有限公司).

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
FU Jun	aged 50, currently independent non-executive Director of the Company, member of Risk Management Committee, member of the Audit Committee, member of the Remuneration Committee, member the chairman of Nomination Committee within the reporting period. He is a Professor with a doctoral degree of law. Mr. FU went on an exchange and interviewed with Harvard University as a senior visiting scholar of Fulbright (福布賴特高級訪問學者). He served as a teaching assistant and associate professor in University of International Business and Economics (對外經濟貿易大學), and an independent non-executive director of CCB Principal Asset Management Co., Ltd. (建信基金管理有限責任公司). He is a professor of the Law School of University of International Business and Economics (對外經濟貿易大學); an arbitrator of China International Economic and Trade Arbitration Commission (中國國際經濟貿易仲裁委員會), an arbitrator of South China International Economic and Trade Arbitration Commission (Shenzhen Court of International Arbitration) (華南國際經濟貿易仲裁委員會 (深圳國際仲裁院)), an arbitrator of Guangzhou Arbitration Commission (廣州仲裁委員會), an arbitrator of Shanghai International Economic and Trade Arbitration Commission (Shanghai International Arbitration Center) (上海國際經濟貿易仲裁委員會 (上海國際仲裁中心)), an arbitrator of Beijing Arbitration Commission (北京仲裁委員會), an arbitrator in Ningbo Arbitration Commission (寧波仲裁委員會), and an arbitrator in Wenzhou Arbitration Commission (溫州仲裁委員會). Mr. FU is the deputy secretary general and permanent member of Institute of International Economic Law under China Law Society (中國法學會國際經濟法學研究會), the deputy director of the Professional Committee of the International Financial Law under China Law Society (中國法學會國際金融法專業委員會), an executive director of China Banking Law Society (中國銀行法學研究會).

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
FAN Guangsheng	aged 55, is currently chairman of Supervisory Board and employee representative Supervisor of the Company, deputy Party secretary, secretary to disciplinary inspection commission, and chairman of labour union. He is a senior engineer with a master's degree in business administration. Mr. FAN served as technician of the design management office, deputy secretary of the Communist Youth League, and deputy director of the Party Committee Office in Qinghai Aluminum Factory (青海鋁廠); director of the Party Committee Office, assistant to general manager, director of the manager office, deputy Party secretary, secretary of disciplinary inspection commission, and chairman of labor union of Qinghai Aluminum Co., Ltd. (青海鋁業有限責任公司); deputy Party secretary, secretary to discipline inspection commission, and chairman of labour union of the Chalco Qinghai Branch (中國鋁業青海分公司); Party secretary, secretary to disciplinary inspection commission, and chairman of labour union of the Northwest Aluminum Processing Branch of Chalco (中國鋁業西北鋁加工分公司); Party secretary, secretary to disciplinary inspection commission, and chairman of labour union of Northwest Aluminum Processing Factory (西北鋁加工廠); Party secretary, chairman of the labour union, general manager, and director of Shanxi Huaxing Aluminum Co., Ltd. (山西華興鋁業有限公司); and member of Shanxi Work Promotion Office of Chalco (中鋁山西工作推進辦公室)., etc
OU Xiaowu	aged 57, currently supervisor of the Company within the reporting period. He is a senior auditor with a bachelor's degree in economics. Mr. OU served as the director of 1st division of the audit department in China Nonferrous Metals Industry Corporation (中國有色金屬工業總公司); deputy director of the finance department and audit department of China Copper Lead Zinc Group Corporation (中國銅鉛鋅集團公司); director of the finance department (audit department) in Chinalco; supervisor, general manager of the finance department of Chalco (中國鋁業); chairman of the board of supervisors of China Aluminum Insurance Broker (Beijing) Co., Ltd. (中鋁保險經紀(北京)股份有限公司); director, supervisor and chief financial officer of China Copper Co., Ltd. (中國銅業有限公司); supervisor of Guangxi Huayin Aluminum Co., Ltd. (廣西華銀鋁業有限公司); deputy chief auditor and the general manager of the audit department of Chinalco (中鋁集團); supervisor of China Aluminum Group High-end Manufacturing Co., Ltd. (中國鋁業集團高端製造股份有限公司); and supervisor of Chalco Energy Co., Ltd. (中鋁能源有限公司) etc. Mr. OU is currently deputy party secretary and secretary of the disciplinary committee, director of Chalco, and is also chairman of the board of supervisors of Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd. (青海黃河水電再生鋁業有限公司).

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
LI Wei	aged 50, currently supervisor of the Company within the reporting period. He obtained a master's degree in law and served in various positions, including: probation deputy division head of the 2nd Factory of Beijing Coal Corporation (北京市煤炭總公司); discipline inspector of the Research Office under the Integrated Inspection Office of the Discipline Commission of the Communist Party of China (director-level); office director of the Accredited Institution of the Integrated Inspection Office (director-level); director of the 2nd division of seconded cadres of organization department; deputy director of the department of discipline inspection and supervision (inspection office), regional center director (Southwest region) of discipline inspection and supervision of Chalco (now Chinalco); deputy leader of Party organization disciplinary inspection team, director of disciplinary supervision department (inspection office), director of disciplinary supervision department, director of inspection office of Chinalco; supervisor of Southwest Aluminium (Group) Co., Ltd. (西南鋁業(集團)有限責任公司); member of School Affairs Committee of China Aluminum Party School (中鋁黨校校務委員會) etc. Mr. Li is currently the deputy director of disciplinary supervision department of Chinalco.
WANG Yonghong	aged 58, is currently the vice president and the safety officer of the Company. He is an excellent senior engineer with a master's degree in engineering. Mr. WANG served as a technician in Shanxi Wenxi Fertilizer Factory (山西聞喜化肥廠); the officer of the engineering department and Alumina Engineering Supervising Unit of Shanxi Aluminum Plant (山西鋁廠); the deputy head of the engineering division of Alumina Engineering Supervising Unit (氧化鋁工程指揮部) of Shanxi Aluminum Plant (山西鋁廠); the deputy head of the general deployment unit, the head of the mechanical engineering division, and the head of the third Alumina sub-branch of Shanxi Aluminum Plant (山西鋁廠); the deputy general manager, the deputy general manager (taking charge of the work), and general manager of Zhongzhou Branch of Chalco (中國鋁業中州分公司); a member of the tenth session of the Jiaozuo Committee of Communist Party of China; the executive director, general manager, Party secretary, chairman of the labour union of Chinalco Shenyang Non-Ferrous Metals Processing Co., Ltd. (中鋁瀋陽有色金屬加工有限公司); the assistant to president of China Rare Earth Holdings Limited (中國稀有稀土股份有限公司); the ombudsman of aluminum processing division of Chinalco (中鋁集團); and the deputy head of Work Promotion Office of Chinalco Henan; director of Chalco Tendering Company Limited (中鋁招標有限公司) etc. Mr. WANG is also non-independent director of Zhuzhou Tianqiao Crane Co., Ltd. (株洲天橋起重機股份有限公司).

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Name	Main work experience
LIU Ruiping	aged 54, is currently executive director and vice president of the Company. He is an excellent senior engineer with a master's degree from Party School of the Central Committee. Mr. LIU served as the chief engineer and deputy director of economic planning division of SAMI; the deputy manager and manager of the Alumina Project of Investment Management Department and manager of the First Division of Chalco (中國鋁業); and the senior manager, deputy general manager and general manager of the Investment Management Department of Chalco. Mr. LIU is also Party secretary and chairman of Twelfth Metallurgical Company, and executive director of Shanxi 12th Metallurgical Asset Management Co., Ltd. (山西十二冶資產管理有限公司).
MA Ning	aged 58, is currently the vice president of the Company. He is a senior engineer with excellent performance, graduated from university with a bachelor degree in engineering. He served as an assistant engineer, engineer, team leader, operation manager and deputy director of planning and operation department, deputy director of market development department, director of operation department, director of domestic business department, and the vice president of Shenyang Aluminum & Magnesium Engineering & Research Institute (瀋陽鋁鎂設計研究院); deputy general manager of Shenyang Branch of the Company; deputy general manager of the Company; vice president of the Company; executive director of Beijing Zichen Investment & Development Co., Ltd. (北京紫宸投資發展有限公司); secretary of the party committee and executive director of Sixth Metallurgical Company; general manager of SAMI etc. Mr. MA is also concurrently the party secretary, executive director and general manager of SAMI, and a party secretary and executive director of GAMI; executive director of Guiyang Lvmei Asset Management Co., Ltd. (貴陽鋁鎂資產管理有限公司).

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Name	Main work experience
BI Xiaoge	aged 54, is currently the vice president of the Company. He is a senior engineer and graduated from Party School of the Central Committee. He served in various positions in Shandong Aluminum Company (山東鋁業公司), including a technician in quality management department of the Alumina Plant; the deputy director of Alumina Plant Workshop No. 62, the deputy head of quality management department, and the head of Workshop No. 2. He served as the director of quality management department of Shandong Aluminum Holdings Limited (山東鋁業股份有限公司), the deputy head of quality management department of Shandong Aluminum Company (山東鋁業公司), the deputy manager of the production operation department (quality management department), the deputy manager (taking charge of the work) and general manager of planning operation department of Shandong Branch of Chalco (中國鋁業山東分公司), the manager of the investment management department of Chalco Shandong Co., Ltd. (中鋁山東有限公司), a member of the enterprise transformation and upgrading workgroup of Chinalco Zhengzhou (中鋁鄭州); the deputy general manager of Henan Branch of Chalco (中國鋁業河南分公司), a standing member of the Party Committee of China Great Wall Aluminum Corporation Limited (中國長城鋁業有限公司); the deputy general manager of Chinalco Mining Corporation Limited (中鋁礦業有限公司), and executive director of China Aluminum International Yunnan Aluminum Application Engineering Co., Ltd. (中鋁國際雲南鋁應用工程有限公司) (preceded by Beijing Zichen Investment & Development Co., Ltd. (北京紫宸投資發展有限公司)), etc. Mr. BI is also vice-chairman of CNPT; executive director of China Aluminum Technology; director of Chinalco Tendering Co., Ltd.

Other information

☐ Applicable ☒ Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(II) Positions of existing and resigned directors, supervisors and senior management during the reporting period

1. Positions held at the Shareholder

☒ Applicable ☐ Not applicable

Position holder's name	Shareholder's name	Position at the Shareholder	Term starting date	Term ending date
WU Jianqiang	Chinalco	Assistant to general manager	2020.03	–
	Chinalco	General manager of strategic investment department (tendering/bidding management supervision office)	2022.01	–
LI Wei	Chinalco	Deputy leader of disciplinary inspection team	2019.04	–
Explanation of positions at the shareholder	None			

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2. Position held at other entities

✓ Applicable □ Not applicable

Position holder's name	Other entity's name	Position at other entity	Term starting date	Term ending date
LI Yihua	China Iron Ore Holdings Limited	Director	2018.10	–
	China Aluminum International Trading Corporation Limited	Director	2015.09	2021.11
	Chinalco Assets Operation and Management Co., Ltd.	General Manager, Deputy Party Secretary	2020.10	2022.01
	Chinalco Assets Operation and Management Co., Ltd.	Director	2021.12	2022.01
	China Aluminum Group High-end Manufacturing Co., Ltd.	Director	2019.09	2021.12
	Chinalco Industrial Services Company Limited	Chairman	2021.09	2022.01
LIU Jing	China Iron Ore Holdings Limited	Director	2018.10	–
	CNPT	Chairman	2021.08	–
WU Jianqiang	Chinalco Tendering Co., Ltd.	Chairman	2022.01	–
ZHANG Jian	Chinalco Finance Co., Ltd.	Director	2016.02	2021.12
	China Aluminum International Investment Management (Shanghai) Co., Ltd.	Executive Director	2021.05	–
WANG Jun	Aluminum Corporation of China Overseas Holdings Limited	Director, President	2015.11	2021.08
	Dongfang Yuanjing Company	Director	2015.12	2021.07
	Yangguang Yuanjing Company	Director	2015.12	2021.07
	Chinalco Finance Co., Ltd.	Director	2014.02	2021.12
	Chinalco Capital Holdings Limited	Director	2015.12	2021.01
	China Rare Earth Holdings Limited	Chairman of the Board of Supervisors	2016.06	2021.01
	Beijing National Aluminum Investment Management Co. Ltd	Legal Representative, Chairman, Manager	2017.06	–
	Beijing China Adjustment Chalco Copper Industry Development Fund (Limited Partnership)	Member of Investment Decision-making Committee	2017.06	–
	Aluminum Corporation of China Limited	Chief Financial Officer, Secretary to the Board of Directors	2019.01	–

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Position holder's name	Other entity's name	Position at other entity	Term starting date	Term ending date
WU Zhigang	China Aluminum International Investment Management (Shanghai) Co., Ltd.	Executive Director	2018.11	2021.01
GUI Weihua	Changsha Wuhua Technology Development Co., Ltd.	Director	2002.05	2021.06
	China Nerin Engineering Co., Ltd. (中國瑞林工程技術股份有限公司)	Independent Non-executive Director	2018.05	–
CHEUNG Hung Kwong	Ganglong China Property Group Limited	Vice President	2020.05	–
OU Xiaowu	Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd. Chalco Energy Co., Ltd.	Chairman of the Board of Supervisors	2012.10	–
	Aluminum Corporation of China Limited	Deputy Party Secretary, Secretary of Disciplinary Committee	2020.10	–
	Aluminum Corporation of China Limited	Director	2021.06	–
	Chalco Energy Co., Ltd.	Supervisor	2011.05	2021.01
WANG Yonghong	Chinalco Tendering Co., Ltd.	Director	2019.07	2021.08
	Zhuzhou Tianqiao Crane Co., Ltd.	Non-Independent Director	2019.11	–
LIU Ruiping	Twelfth Metallurgical Company	Party Secretary	2018.05	–
	Twelfth Metallurgical Company	Executive Director	2018.05	2021.12
	Twelfth Metallurgical Company	Chairman	2021.12	–
	Shanxi 12th Metallurgical Asset Management Co., Ltd.	Executive Director	2019.01	–

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Position holder's name	Other entity's name	Position at other entity	Term starting date	Term ending date
MA Ning	SAMI	Party Secretary , Executive Director	2019.02	–
	GAMI	Party Secretary , Executive Director	2021.02	–
	Guiyang Lvmei Asset Management Co., Ltd.	Executive Director	2021.06	–
	SAMI	General Manager	2019.02	2021.09
BI Xiaoge	Chinalco Technology	Executive Director	2018.10	–
	Chinalco Tendering Co., Ltd.	Director	2021.08	–
	CNPT	Vice Chairman	2021.05	–
Explanation of positions at other entities		None		

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(III) Emoluments of directors, supervisors and senior management

✓ Applicable ☐ Not applicable

Decision-making procedures for remuneration of directors, supervisors and senior management

Based on the market level and the compensation strategy of the Company, the Company's human resources department puts forward the compensation package for directors, supervisors and senior management, which is subject to the approval of Remuneration Committee and then to the consideration of the Board. Specifically, the remuneration of senior management is determined by the Board, and the remuneration of Directors and supervisors is subject to the approval of the Board and then to the general meeting for consideration and approval.

Basis for determining the remuneration of directors, supervisors and senior management

Based on the development strategy, corporate culture and remuneration strategy, the Company determines the remuneration of Directors, supervisors and senior management by reference to the remuneration level of identical positions at comparable companies (scale, industry, nature, etc.) and taking into account the Company's annual operating performance, the performance of Directors and supervisors and the performance assessment results of senior management.

Actual payment of remuneration to directors, supervisors and senior management

The Company pays remuneration to directors, supervisors and senior management in full and on time every month based on the remuneration standards for Directors, supervisors and senior management determined by the general meeting and the Board.

Total remuneration actually received by all directors, supervisors and senior management at the end of the reporting period

RMB5,776,900

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(IV) Changes in directors, supervisors and senior management of the Company

✓ Applicable ☐ Not applicable

Name	Position	Change	Reason for change
WANG Jun	Non-executive director, member of the audit committee and remuneration committee of the Board	Resignation	Work adjustment
WU Zhigang	Executive Director, Vice President	Resignation	Retirement
LIU Jing	President	Appointment	Appointed by the Board
LIU Jing	Executive Director	Election	Elected
WU Jianqiang	Chairman, executive director, member and chairman of Risk Management Committee, member of Nomination Committee, member and chairman of Strategy Committee	Leave office	Work adjustment
LI Yihua	Chairman	Election	Elected
LI Yihua	Chairman of Risk Management Committee, member and chairman of Strategy Committee, member of Nomination Committee	Appointment	Appointed by the Board
GUI Weihua	Member of Audit Committee	Appointment	Appointed by the Board
MA Ning	Vice President	Appointment	Appointed by the Board

Notes:

- On 7 March 2022, the Company held its 45th meeting of the 3rd Board of Directors, which passed the Motion to Nominate Candidates for Non-independent Directors to the 4th Board of Directors of the Company (《關於提名公司第四屆董事會非獨立董事候選人的議案》) and the Motion to Nominate Candidates for Independent Directors to the 4th Board of Directors of the Company (《關於提名公司第四屆董事會獨立董事候選人的議案》). The 4th Board of Directors of the Company comprises of 9 directors, including 6 non-independent directors and 3 independent directors. The meeting nominated Mr. LI Yihua, Mr. LIU Jing, and Mr. LIU Ruiping to be candidates for directors or executive directors to the 4th Board of Directors of the Company, and nominated Mr. HU Zhenjie, Mr. ZHOU Xinzhe, and Mr. ZHANG Wenjun to be candidates for non-executive directors to the 4th Board of Directors, to exercise their rights and powers lawfully under the Articles of Association, for a tenure of 3 years from the date of election at the general meeting. The meeting nominated Mr. GUI Weihua, Mr. XIAO Zhixiong, and Mr. DONG Pengfang to be candidates for independent non-executive directors to the 4th Board of Directors, to exercise their rights and powers lawfully under the Articles of Association etc., for a tenure of 3 years from the date of election at the general meeting.
- On 7 March 2022, the Company held the 25th meeting of the 3rd Board of Supervisors, which passed the Motion to Nominate the Candidates for Shareholder Representative Supervisors to the 4th Board of Supervisors of the Company (《關於提名公司第四屆監事會股東代表監事候選人的議案》). The 4th Board of Supervisors of the Company comprises of 3 supervisors, including 2 shareholder representative supervisors and 1 employee representative supervisor. The nomination of shareholder representative supervisors: As recommended by the Company's controlling shareholder – Aluminum Corporation of China, the Board of Supervisors nominated Mr. HE Wenjian, and Ms. LIN Ni to be the candidates for shareholder representative supervisors to the 4th Board of Supervisors, to exercise their rights and powers lawfully under the Articles of Association, for a tenure of 3 years from the date of election at the general meeting. The employee representative supervisors will be elected at the Employee Representatives Conference of the Company.

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(V) Details on punishments imposed by securities regulatory authorities in last 3 years

☐ Applicable ☒ Not applicable

(VI) Others

☐ Applicable ☒ Not applicable

IX. MEETINGS OF THE BOARD OF DIRECTORS HELD WITHIN THE REPORTING PERIOD

Meeting	Convening date	Resolutions
The 37 th meeting of the 3 rd Board of Directors of China Aluminum International Engineering Corporation Limited	20 January 2021	The meeting reviewed and passed 3 motions including the Motion to Nominate Candidates for Directors to the Board of Directors of the Company (《關於提名公司董事會董事候選人的議案》), the Motion to Engage Senior Management of the Company (《關於聘任公司高級管理人員的議案》) and the Motion to Convene the 1st Extraordinary General Meeting of the Year 2021 (《關於提請召開公司2021年第一次臨時股東大會的議案》), as detailed in relevant announcements of the Company.

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Meeting	Convening date	Resolutions
The 38 th meeting of the 3 rd Board of Directors of China Aluminum International Engineering Corporation Limited	29 March 2021	The meeting reviewed and passed 25 motions including the Motion to Consider the 2020 Annual Results Announcement and the Annual Report of the Company (《關於審議公司2020年度業績公告和年度報告的議案》), the Motion to Consider the 2020 Annual Work Report of the Board of Directors of the Company (《關於審議公司<2020年度董事會工作報告>的議案》), the Motion to Consider the 2020 Annual Work Report of the President of the Company (《關於審議公司<2020年度總裁工作報告>的議案》), the Motion to Consider the 2020 Annual Final Accounting Report of the Company (《關於審議公司2020年度財務決算報告的議案》), the Motion to Consider 2021 Annual Operational Plan Report of the Company (《關於審議公司2021年度經營計畫報告的議案》), the Motion to Consider 2020 Annual Profit Distribution Plan of the Company (《關於審議公司2020年度利潤分配方案的議案》), the Motion to Consider 2021 Annual Capital Expenditure Plan of the Company (《關於審議公司2021年度資本支出計畫的議案》), the Motion to Apply for General Authorization from the General Meeting to the Board of Directors to Issue Shares (《關於提請股東大會授予董事會發行股份一般性授權的議案》), the Motion on the General Authorization for the Company to Issue Domestic or Overseas Debt Financing Instruments (《關於公司發行境內外債務融資工具一般性授權的議案》), the Motion on the 2020 Annual Impairment Provision of the Company (《關於公司2020年度計提資產減值準備的議案》), the Motion to Consider the 2020 Annual Social Responsibility Report of the Company (《關於審議公司2020年度社會責任報告的議案》), the Motion to Consider the 2020 Annual Internal Control Evaluation Report of the Company (《關於審議公司2020年度內部控制評價報告的議案》), the Motion to Consider the 2020 Annual Internal Control Auditor's Report of the Company (《關於審議公司2020年度內部控制審計報告的議案》), the Motion to Consider the 2021 Annual Overall Risk Management Report of the Company (《關於審議公司2021年度全面風險管理報告的議案》), the Motion to Consider the Annual Non-related Transactions Type External Guarantee Plan (《關於審議年度非關聯交易類型對外擔保計畫的議案》), the Motion to Consider the 2021 Annual Internal Entrusted Loans of the Company (《關於審議2021年度公司內部委託貸款的議案》), the Motion to Apply for Comprehensive Credit Extension from Financial Institutions by the Company (《關於公司向金融機構申請綜合授信的議案》), the Motion to Apply for Loans from Financial Institutions by the Company (《關於公司向金融機構申請貸款的議案》), the Motion to Update the Financial Services Agreement (《關於更新<金融服務協議>的議案》), the Motion to Consider the 2021 Annual Directors and Supervisors Emolument Plan of the Company (《關於審議公司2021年度董事和監事薪酬方案的議案》), the Motion to Appoint Members to the Audit Committee under the 3rd Board of Directors of the Company (《關於委任公司第三屆董事會審核委員會委員的議案》), the Motion to Consider the Guarantee Provided by the Controlled Subsidiary to Chalco Wancheng Shandong Construction Co., Ltd. (《關於審議控股子公司為中鋁萬成山東建設有限公司提供擔保的議案》), the Motion to Consider the Re-appointment of Auditor to the Company (《關於審議公司續聘審計師的議案》), the Motion on the Company's Compliance with OFAC Commitments in the Year 2020 (《關於2020年度公司遵守OFAC承諾的議案》), and the Motion to Convene the 2020 Annual General Meeting of the Company (《關於提請召開公司2020年度股東大會的議案》), as detailed in the relevant announcements published by the Company.

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Meeting	Convening date	Resolutions
The 39 th meeting of the 3 rd Board of Directors of China Aluminum International Engineering Corporation Limited	26 April 2021	The meeting reviewed and passed the Motion to Consider the 1Q2021 Report of the Company (《關於審議公司2021年第一季度報告的議案》), as detailed in the relevant announcement of the Company.
The 40 th meeting of the 3 rd Board of Directors of China Aluminum International Engineering Corporation Limited	23 August 2021	The meeting reviewed and passed the Motion to Consider the 1H2021 Report of the Company, as detailed in the relevant announcement of the Company.
The 41 th meeting of the 3 rd Board of Directors of China Aluminum International Engineering Corporation Limited	27 October 2021	The meeting reviewed and passed 3 motions including the Motion to Consider the 3Q2021 Report of the Company (《關於審議公司2021年第三季度報告的議案》), the Motion to Update the Factoring Cooperation Framework Agreement (《關於更新<保理合作框架協議>的議案》), and the Motion to Consider the 2021 Annual Senior Management Emolument of the Company (《關於審議公司2021年度高級管理人員薪酬的議案》), as detailed in the relevant announcements published by the Company.
The 42 th meeting of the 3 rd Board of Directors of China Aluminum International Engineering Corporation Limited	10 December 2021	The meeting reviewed and passed 6 motions including the Motion to Modify the Articles of Association of the Company (《關於修訂<公司章程>的議案》), the Motion to Modify the Proceeding Rules of General Meeting (《關於修訂<股東大會議事規則>的議案》), the Motion to Modify the Proceeding Rules of the Board of Directors (《關於修訂<董事會議事規則>的議案》), the Motion to Implement the Plan of Exercising the Functions and Powers of the Board of Directors of the Company (《關於落實公司董事會職權實施方案的議案》), the Motion to Appoint the Securities Affairs Representative of the Company (《關於聘任公司證券事務代表的議案》), and the Motion to Convene the 2nd Extraordinary General Meeting of the Company in the Year 2021 (《關於提請召開公司2021年第二次臨時股東大會的議案》), as detailed in the relevant announcements published by the Company.

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X. DUTY PERFORMANCE OF DIRECTORS

(I) Directors attendance at the Board meeting and the general meeting

Director's name	Independent director or not	Number of attendances at the Board meeting of the year	Attendance at the Board meeting				Absent for two consecutive times or not	Attendance at the general meeting
			Number of attendances in person	Number of attendances online	Number of attendances by proxy	Number of absences		Number of attendances at the general meeting
WU Jianqiang	No	6	6	5	0	0	No	2
LIU Jing	No	5	5	4	0	0	No	2
ZHANG Jian	No	6	6	5	0	0	No	3
LI Yihua	No	6	5	5	1	0	No	1
GUI Weihua	Yes	6	6	5	0	0	No	3
CHEUNG Hung Kwong	Yes	6	6	5	0	0	No	2
FU Jun	Yes	6	6	5	0	0	No	3

Explanation of absence from the Board meeting for two consecutive times

☐ Applicable ☒ Not applicable

Number of Board meetings held during the year	6
Including: number of meetings offline	1
Number of meetings online	5
Number of meetings online + offline	1

(II) Directors' objections to relevant matters

☐ Applicable ☒ Not applicable

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(III) Other information

✓ Applicable ☐ Not applicable

Directors' training

Within the reporting period, all directors participated in continuous professional development to develop and refresh their knowledge and expertise so as to ensure their continuous contributions to the Board when informed and necessary. The details of training for all directors as at the end of the reporting period are as follows:

Name	Position	Training time	Training content
WU Jianqiang ¹	Chairman, executive director	7 hours	Compliance with listing rules, corporate governance, etc.
LIU Jing	Executive director	15 hours	Compliance with listing rules, corporate governance, etc.
LI Yihua	Non-executive director	15 hours	Compliance with listing rules, corporate governance, etc.
ZHANG Jian	Executive director	22 hours	Compliance with listing rules, corporate governance, etc.
GUI Weihua	Independent non-executive director	7 hours	Compliance with listing rules, corporate governance, etc.
CHEUNG Hung Kwong	Independent non-executive director	7 hours	Compliance with listing rules, corporate governance, etc.
FU Jun	Independent non-executive director	7 hours	Compliance with listing rules, corporate governance, etc.

Note 1: Mr. WU Jianqiang has resigned as chairman, director and other positions of the Company due to work transfer. The resignation took effect since 11 February 2022. After resignation, Mr. WU would no longer hold any position in the Company.

Note 2: As the joint company secretary, Mr. ZHANG Jian has received more than 15 hours of training on compliance with listing rules and corporate governance, etc. during the reporting period.



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XI. CHAIRMAN AND PRESIDENT

The roles of chairman and president (i.e. general manager under relevant provisions of the SSE Listing Rules and chief executive officer under relevant provisions of the HKEX Listing Rules) of the Company are performed by two different persons respectively to ensure their independence and accountability and the balance of power and authorization. The Articles of Association defines the division of responsibilities between the chairman and the president.

As at the reporting date of this report, Mr. LI Yihua is the chairman of the Board of Directors, and Mr. LIU Jing is the president of the Company. Due to work transfer, Mr. WU Jianqiang sent a letter of resignation to the Board of Directors, and resigned as chairman, director and other positions. The resignation took effect since 11 February 2022. After resignation, Mr. WU Jianqiang no longer holds any position in the Company.

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XII. SPECIAL COMMITTEES UNDER THE BOARD OF DIRECTORS

✓ Applicable ☐ Not applicable

(1) Members of special committees under the Board of Directors

Committee	Members
Audit Committee	CHEUNG Hung Kwong, GUI Weihua, FU Jun
Nomination Committee	FU Jun, GUI Weihua, WU Jianqiang
Remuneration Committee	GUI Weihua, FU Jun
Strategy Committee	WU Jianqiang, GUI Weihua
Risk Management Committee	WU Jianqiang, LI Yihua, FU Jun

(2) Audit Committee held 5 meetings within the reporting period

Audit Committee is given the function of corporate governance of the Company. The main duties of Audit Committee include: to review the Company's internal control system and direct the construction of internal corporate control mechanism; to make recommendations to the Board of Directors in respect of engaging or replacement of intermediaries such as accounting firms as well as their remuneration; to review the Company's financial reports, consider the Company's accounting policies and their changes, and make recommendations to the Board of Directors; to review the Company's financial information and its disclosure; to make recommendations to the Board of Directors in respect of appointment or removal of person-in-charge of its internal audit department; to supervise the formulation and implementation of its internal auditing system; to assess and supervise the completeness of the corporate auditing system and the effectiveness of its operations; and to maintain good communications with the Board of Supervisors as well as internal and external audit firms. The Audit Committee exercises its authority pursuant to the requirements under Rule D.3.1 of the Corporate Governance Code.

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Convening date	Meeting content	Key opinions and suggestions	Other compliance
20 January 2021	The meeting considered 1 motion: the Motion to Consider the 2020 Annual Financial Statements Auditing and Other Costs of the Company (《關於審議公司2020年年度財務報表審計等費用的議案》)	No objection, unanimously passed.	—
28 March 2021	The meeting considered 10 motions: the Motion to Consider the 2020 Annual Results Announcement and the Annual Report of the Company (《關於審議公司2020年度業績公告和年度報告的議案》), the Motion to Consider the 2020 Annual Final Accounting Report of the Company (《關於審議公司2020年度財務決算報告的議案》), the Motion to Consider 2021 Annual Operational Plan Report of the Company (《關於審議公司2021年度經營計畫報告的議案》), the Motion to Consider 2020 Annual Profit Distribution Plan of the Company (《關於審議公司2020年度利潤分配方案的議案》), the Motion to Consider the 2020 Annual Impairment Provision of the Company (《關於審議公司2020年度計提減值準備方案的議案》), the Motion to Consider the 2020 Annual Internal Control Evaluation Report of the Company (《關於審議公司2020年度內部控制評價報告的議案》), the Motion to Consider the 2020 Annual Internal Control Auditor's Report of the Company (《關於審議公司2020年度內部控制審計報告的議案》), the Motion to Consider the 2021 Annual Internal Entrusted Loans of the Company (《關於審議2021年度公司內部委託貸款的議案》), the Motion to Update the Financial Services Agreement of the Company (《關於審議公司更新〈金融服務協議〉的議案》), and the Motion to Consider the Re-appointment of Auditor to the Company (《關於審議公司續聘審計師的議案》).	No objection, unanimously passed.	—
23 April 2021	The meeting considered 1 motion: Motion to Consider the 1Q2021 Report of the Company (《關於審議公司2021年第一季度報告的議案》).	No objection, unanimously passed.	—
21 August 2021	The meeting considered 2 motions: the Motion to Consider the 1H2021 Report of the Company (《關於審議公司2021年半年度報告的議案》), and the Motion to Consider the 2021 Interim Report Review Costs of the Company (《關於審議公司2021年中報審閱費用的議案》).	No objection, unanimously passed.	—
25 October 2021	The meeting considered 2 motions: the Motion to Consider the 3Q2021 Report of the Company (《關於審議公司2021年第三季度報告的議案》), and the Motion to Adjust the Upper Limit of Factoring Services (《關於調整保理服務交易上限的議案》).	No objection, unanimously passed.	—

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

The attendance record of the meetings is as follows:

Name	Position	Number of meetings attended/held	Attendance rate
CHEUNG Hung Kwong	Chairman of the Audit Committee	5/5	100%
FU Jun	Member of the Audit Committee	5/5	100%
GUI Weihua ⁽¹⁾	Member of the Audit Committee	3/5	100%
WANG Jun ⁽²⁾	Member of the Audit Committee	0	—

Note 1: On 29 March 2021, Mr. GUI Weihua acted as member of the Audit Committee under the Board of Directors for a term ending on 31 December 2021; he attended a total of 3 meetings of the Audit Committee.

Note 2: On 20 January 2021, Mr. WANG Jun resigned as a non-executive director, a member of the Audit Committee and a member of the Remuneration Committee of the Company due to work transfer.

(3) The Nomination Committee held 2 meetings within the reporting period

The main duties of the Nomination Committee include: to review the structure, size and composition (including the skills, knowledge and experience) of the Board of Directors on a regular basis and make recommendations to the Board of Directors regarding any proposed changes in order to promote the corporate strategy of the Issuer; to widely search for and identify individuals who are suitable to become a member of the Board and the president of the Company (may extend to the senior management of the Company, where necessary, the same below), to examine and make recommendations to the Board of Directors on the election of individuals nominated for directors and the president; to assess the independence of the independent non-executive directors; to examine the selection criteria and procedure for the directors and the president and make recommendations in this regard; to make recommendations to the Board of Directors on matters relating to the appointment or reappointment of directors or the president and succession plans for directors (including the chairman) or the president; to seek independent professional advice, if necessary, in order to perform its duties.

In accordance with the requirements of relevant laws and regulations and the Articles of Association, the Nomination Committee shall examine the selection criteria and procedures and the terms of office for the proposed directors with reference to the Company's actual condition. Any resolution made in this regard shall be filed and submitted to the Board for consideration, approval and implementation. Detailed procedures are as follows: the Committee shall communicate with the relevant departments of the Company to examine the Company's demand for new directors and to prepare the written proposal; carry out an extensive search for candidates of directors within the Company, its holding company or other companies; seek consents from proposed candidates for the nomination, otherwise he/she shall not be put on the list of candidates of directors; upon consideration and approval at the general meeting or Board meeting, carry out other work in relation to holding office in accordance with the resolutions of the general meeting or Board meeting.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

The Nomination Committee considered that the composition of members of the Board during the reporting period was in compliance with the requirement of the “Board Diversification Policy”.

Convening date	Meeting content	Key opinions and suggestions	Other compliance
20 January 2021	The meeting considered 2 motions: the Motion to Nominate Mr. LIU Jing to be Candidate Director for the Board of Directors of the Company 《關於提名劉敬為公司董事會董事候選人的議案》, and the Motion to Nominate Mr. LIU Jing as President and Mr. MA Ning as Vice President of the Company 《關於提名劉敬先生擔任公司總裁、馬寧為公司副總裁的議案》.	No objection, unanimously passed.	–
26 March 2021	The meeting considered 1 motion: the Motion to Appoint the Members to the 3rd Board of Directors of the Company 《關於委任公司第三屆董事會審核委員會委員的議案》.	No objection, unanimously passed.	–

The attendance record of the meetings is as follows:

Name	Position	Number of meetings attended/held	Attendance rate
FU Jun	Chairman of the Nomination Committee	2/2	100%
WU Jianqiang ⁽¹⁾	Member of the Nomination Committee	2/2	100%
GUI Weihua	Member of the Nomination Committee	2/2	100%

Note 1: On 11 February 2022, Mr. WU Jianqiang resigned as chairman of the Company, the director, member and chairman of the Risk Management Committee, member of the Nomination Committee, member and chairman of the Strategy Committee and other positions due to work transfer.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(4) The Remuneration Committee held 2 meetings within the reporting period

The main duties of the Remuneration Committee include: to study the evaluation criteria for directors and senior management, conduct evaluations and make recommendations; to make recommendations to the Board of Directors on the overall remuneration policy and structure of the directors and the senior management of the Company and on the establishment of a formal and transparent procedure for developing such remuneration policies; to make recommendations to the Board of Directors in respect of the specific remuneration packages of all executive directors and the senior management, including benefits in kind, pension rights and compensation payments (including compensation payable for loss or termination of office or appointment), and make recommendations to the Board of Directors in respect of the remuneration of non-executive directors; to review and approve performance-based remuneration with reference to corporate objectives as approved by the Board of Directors from time to time; to review and approve the compensation payable to executive directors and the senior management in connection with any loss or termination of office or appointment to ensure that such compensation is determined in accordance with relevant contractual terms and that if not, such compensation is otherwise fair and reasonable and not excessive for the listed company; to review and approve compensation arrangements relating to dismissal or removal of directors for misconduct to ensure that such arrangements are determined in accordance with relevant contractual terms and that if not, such compensation payment is otherwise reasonable and appropriate; to ensure that no director or any of his/her associates is involved in determining his/her own remuneration.

Convening date	Meeting content	Key opinions and suggestions	Other compliance
26 March 2021	The meeting passed 1 motion: the Motion to Consider the 2021 Annual Directors and Supervisors' Emolument Plan 《關於審議公司2021年度董事和監事薪酬方案的議案》	No objection, unanimously passed.	-
26 October 2021	The meeting passed 1 motion: the Motion to Consider the 2021 Annual Senior Management Emolument Plan 《關於審議公司2021年度高級管理人員薪酬的議案》	No objection, unanimously passed.	-

The attendance record of the meetings is as follows:

Name	Position	Number of meetings attended/held	Attendance rate
GUI Weihua	Chairman of the Remuneration Committee	2/2	100%
WANG Jun ⁽¹⁾	Member of the Remuneration Committee	0	-
FU Jun	Member of the Remuneration Committee	2/2	100%

Note 1: On 20 January 2021, Mr. WANG Jun resigned as a non-executive director, member of the Audit Committee and member of the Remuneration Committee, due to work transfer.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(5) The Strategy Committee held 1 meeting within the reporting period

The main duties of Strategy Committee include: to conduct research and provide advice on the Company's development strategy and medium and long-term development plan, and to assess and monitor their implementation; to conduct research and provide advice on the plan of increasing or decreasing registered capital, issuance of bonds, merger, separation, dissolution of the Company; to conduct research and provide advice for the Company on the acquisition, merger, disposal of assets of which required review of the Board of Directors; to conduct research and provide advice for the Company on the expansion of new market and new business; to conduct research and provide advice for the Company on the problems such as investment and financing, asset operation and capital operation of which required review of the Board of Directors; to conduct research and provide advice for the Company on major restructuring and adjustment plan; to conduct examination and assessment for the implementation of the above-mentioned matters and provide written opinions on the results of examination and assessment; to guide and supervise the Board of Directors in respect of the execution of the relevant resolutions; and other duties delegated by the Board of Directors.

Convening date	Meeting content	Key opinions and suggestions	Other compliance
26 March 2021	The meeting considered the Motion to Apply for General Authorization from the General Meeting for the Board of Directors to Issue Shares (《關於提請股東大會授予董事會發行股份一般性授權的議案》) The Motion on the General Authorization for the Company to Issue Domestic or Overseas Debt Financing Instruments (《關於公司發行境內外債務融資工具一般性授權的議案》)	No objection, unanimously passed.	–

The attendance record of the meetings is as follows:

Name	Position	Number of meetings attended/held	Attendance rate
WU Jianqiang ⁽¹⁾	Chairman of the Strategy Committee	1/1	100%
GUI Weihua	Member of the Strategy Committee	1/1	100%

Note 1: On 11 February 2022, Mr. WU Jianqiang resigned as chairman of the Company, the director, member and chairman of the Risk Management Committee, member of the Nomination Committee, member and chairman of the Strategy Committee due to work transfer.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(6) The Risk Management Committee held 1 meeting within the reporting period

The main duties of Risk Management Committee include: to consider judgment standard or mechanism for material business decisions, material risks, material events and important business processes and the risk assessment report of major decisions; to supervise, assess and inspect the completeness and operating effectiveness of the Company's internal risk management system and report the same to the Board of Directors; to examine, approve or verify the matters related to investment, financing and external transactions contracts submitted by the president pursuant to the authority granted by the Board of Directors; to review, evaluate and supervise the effective operation of the Company's risk management and internal control systems; to establish and improve a comprehensive risk management system (including organizational structures, systems, procedures, methods and technologies, etc.); to handle other matters entrusted by the Board of Directors.

Convening date	Meeting content	Key opinions and suggestions	Other compliance
26 March 2021	The meeting considered 2 motions: the Motion to Consider the 2021 Annual Overall Risk Management Report of the Company (《關於審議公司2021年度全面風險管理報告的議案》), and the Motion on the Company's Compliance with OFAC Commitments in the Year 2020 (《關於2020年度公司遵守OFAC承諾的議案》).	No objection, unanimously passed.	-

The attendance record of the meetings is as follows:

Name	Position	Number of meetings attended/held	Attendance rate
WU Jianqiang ⁽¹⁾	Chairman of the Risk Management Committee	1/1	100%
LI Yihua	Member of the Risk Management Committee	1/1	100%
FU Jun	Member of the Risk Management Committee	1/1	100%

Note 1: On 11 February 2022, Mr. WU Jianqiang resigned as chairman of the Company, the director, member and chairman of the Risk Management Committee, member of the Nomination Committee, member and chairman of the Strategy Committee due to work transfer.

(7) Specific objections

☐ Applicable ☒ Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

XIII. EXPLANATION OF RISKS IDENTIFIED BY THE BOARD OF SUPERVISORS

☐ Applicable ☒ Not applicable

The Board of Supervisors had no objection to the supervisory matters within the reporting period.

XIV. PARTICULARS OF EMPLOYEES OF THE PARENT COMPANY AND MAJOR SUBSIDIARIES AT THE END OF REPORTING PERIOD

(i) Employees

Number of existing employees of the parent company	124
Number of existing employees of major subsidiaries	12,365
Total number of existing employees	12,489
Number of resigned and retired employees whose expenses are borne by the parent company and major subsidiaries	7,721

By profession

Profession	Number of employees
Operational management personnel	3,862
Engineering technicians	6,478
Production personnel	1,828
Logistics service personnel	321
Total	12,489

By level of education

Level of education	Number of employees (persons)
PhD	30
Master	1,233
Bachelor	6,514
Junior college	2,334
Technical secondary school and below	2,378
Total	12,489

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(II) Remuneration policy

✓ Applicable ☐ Not applicable

In the general principle of “salaries rising with profit and salaries falling with profit”, the Company conducted budgetary management of total salaries, allocating more wages to member companies with good economic benefits, better cost control and higher labor productivity. The Company is responsible for managing salaries of the operation management team and controlling total salary of employees of the enterprise, while the operation management team of the enterprise is responsible for corporate internal assessment and salary management of employees. The Company biases total salary allocation towards core and backbone employees, guides enterprises to establish and perfect the backbone employee-biased incentive policy by inclining total amount of salaries towards them, and actively organises enterprises to promote the backbone employee incentive efforts, in order to stimulate the enthusiasm of the core talents, and stabilise backbone employees.

(III) Retirement and employees benefit scheme

Details of the Group’s retirement and employees benefit scheme are set out in note 29 “Employee compensation payable” and note 37 “Long-term employee compensation payable” to the consolidated financial statements.

In accordance with regulations applicable to enterprises and the relevant requirements of various local governments in areas in which we operate, we established the pension insurance, medical insurance, unemployment insurance, maternity insurance and workers’ injury compensation insurance for our employees and workers. We also established an employee housing fund according to applicable PRC regulations. In addition to statutory contributions to the above social insurance, the Company provides voluntary benefits for existing employees and retired employees, including supplementary medical insurance and corporate annuity.

(IV) Employee incentive

The Group keeps responding to the development needs. It further established and optimized an effective employees’ performance assessment system based on clear objectives of each position. The employees’ performance is objectively and accurately assessed by breaking down the key tasks of the Group in the year, clarifying performance objective of different roles and setting performance standards. The assessment results are linked to the performance-based salaries in employees’ remuneration to encourage the potential and devotion of employees.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(V) Training plan

☒ Applicable ☐ Not applicable

The Company has long regarded the employees' education and training as a basic work to continuously improve the overall quality of the employee teams, update the employees' knowledge, and cultivate professional talents with unremitting determination and strict implementation. In the employee education and training, based on the team building condition of the employees and in accordance with the Company's strategy, customers' needs and personal abilities, we aim to improve the employees' political theory level and business performance ability. By adhering to the strategy of "going out and coming in", and insisting on the working concept of organic combination of centralized-training and self-improvement, we invest a large amount of human and financial resources to create a training environment for employees and to implement the measures of employee education and training in an effective manner.

(VI) Outsourced labor

☐ Applicable ☒ Not applicable

XV. PROPOSAL FOR PROFIT DISTRIBUTION OR FOR CONVERTING CAPITAL RESERVE INTO SHARE CAPITAL

(i) Formulation, execution and adjustments to cash dividend policy

☒ Applicable ☐ Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

1. Basic principles for profit distribution

- (1) The Company should fully consider the return to investors and distribute dividends to shareholders every year at the specified percentage of the profit available for distribution for the year.
- (2) The Company should maintain continuity and stability in its profit distribution policy while taking into account the long-term interests of the Company, the overall interests of all shareholders and the sustainable development of the Company.
- (3) The Company gives priority to profit distribution in cash. In accordance with the procedures stipulated in the Articles of Association, after considering a combination of factors, including characteristics of the industry where it operates, development stage, business model of its own, profitability, as well as whether there is any substantial capital expenditure arrangement, the Company shall put forward differentiated cash dividend distribution policies and determine the percentage of cash dividends in profit distribution for the year. Such percentage should comply with laws, administrative regulations, normative documents and relevant regulations of stock exchanges.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

2. Specific policies on profit distribution

According to the Articles of Association, the Company may distribute dividends in cash, in shares, or in a combination of both cash and shares, while it gives priority to profit distribution in cash. Subject to the conditions of dividend distribution, the Company shall distribute profits at least once a year, while interim profit distribution may also be made provided that the Company is guaranteed for normal operation and development. The Board of the Company shall put forward differentiated cash dividend distribution policies in accordance with the procedures stipulated in the Articles of Association, after considering a combination of factors, including characteristics of the industry where it operates, development stage, business model of its own, profitability, as well as whether there is any substantial capital expenditure arrangement(s):

- (1) where the Company is at the developed stage with no substantial capital expenditure arrangement, cash dividend shall be not less than 80% of the profit distribution at the time of profit distribution;
- (2) where the Company is at the developed stage with substantial capital expenditure arrangement, cash dividend shall be not less than 40% of the profit distribution at the time of profit distribution;
- (3) where the Company is at the development stage with substantial capital expenditure arrangement, cash dividend shall be not less than 20% of the profit distribution at the time of profit distribution;
- (4) where the Company has difficulty in identifying the development stage but there is substantial capital expenditure arrangement, dividend distribution may be made in accordance with the preceding provision.

“Substantial capital expenditure arrangement” means the proposed external investment, asset acquisition or purchase of assets by the Company in the next twelve months in an aggregate expenditure amounting to or exceeding 10% of the latest audited net assets of the Company.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

Save for special circumstances, the Company shall give priority to dividend payment in cash out of its post tax profits for the year after the accumulated loss (if any) are made up and legal and discretionary reserves are allocated. The cash distribution shall be no less than 20% of the distributable profits for the year. Actual and reasonable factors such as corporate growth and dilution of net asset value per share should be taken into account when profit is distributed in dividends on shares. The Company may not distribute the cash dividends in the following special circumstances:

- (1) the auditor issues a report other than a standard report without qualified opinion in relation to the annual financial report of the Company.
- (2) the net operating cash flows for the year are negative.
- (3) the Company has major investment plan or significant cash expenditure (except for fund raising projects).

3. Profit distribution proposal for the year 2021

As audited by WUYIGE Certified Public Accountants LLP, the 2021 consolidated financial statements of the Company showed that net profit attributable to shareholders of the listed company was RMB-950,129,673.17; as of 31 December 2021, the undistributed profit of the parent company was RMB-51,199,827.53. In order to ensure the Company's continuous and stable operation and the long-term interests of all Shareholders, the Company's Board has comprehensively considered the Company's 2022 business plan and capital requirements, and formulated the 2021 profit distribution plan as follows: The Company will not distribute cash dividend, nor convert capital reserve to the share capital and conduct other forms of distribution.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(II) Special explanation of cash dividend policy

☒ Applicable ☐ Not applicable

Whether compliant with the Articles of Association or the resolution of general meeting or not? ☒ Yes ☐ No

Whether the dividend standard and proportion are clear and definite? ☒ Yes ☐ No

Whether relevant decision-making procedure and mechanism are complete? ☒ Yes ☐ No

Whether independent directors perform their duties and play their roles due? ☒ Yes ☐ No

Whether minority shareholders have the opportunity to fully express their opinions and demands, whether their legitimate rights and benefits are fully protected? ☒ Yes ☐ No

(III) If the Company has positive profit within the reporting period and the parent has positive profit available for distribution to ordinary shareholders, but the Company does not have a plan for profit distribution in cash to ordinary shares, the Company shall disclose the reasons in detail as well as the purpose and intended use of undistributed profit

☐ Applicable ☒ Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)**XVI. STATUS AND IMPACT OF EQUITY INCENTIVE PLANS, EMPLOYEE STOCK OWNERSHIP PLANS OR OTHER EMPLOYEE INCENTIVES**

- (I) Relevant incentives are already disclosed in temporary announcements and there is no progress or change in subsequent operation**

☐ Applicable ☒ Not applicable

- (II) Relevant incentives are not disclosed in temporary announcements or there is subsequent progress**

Equity incentives

☐ Applicable ☒ Not applicable

Other information

☐ Applicable ☒ Not applicable

Employee stock ownership plans

☐ Applicable ☒ Not applicable

Other incentives

☐ Applicable ☒ Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(III) Equity incentives granted to directors and senior management during the reporting period

☐ Applicable ☒ Not applicable

(IV) Establishment and execution of assessment mechanism and incentive mechanism for senior management during the reporting period

☒ Applicable ☐ Not applicable

Based on the market level and the Company's remuneration strategy, the Company put forward the compensation package for senior management, subject to the approval of Remuneration Committee and then to the approval of the Board. The human resources department finalized KPI and remuneration of senior management based on the Company's operating performance and the performance of senior management for the year.

XVII. INTERNAL CONTROL SYSTEM BUILDING AND PERFORMANCE WITHIN THE REPORTING PERIOD

☒ Applicable ☐ Not applicable

In 2021, the Company continued to promote internal control assessment, organized all levels of subsidiary business entities to carry out 2021 annual internal control self-assessment, with a self-assessment coverage of 100%; according to the 3-year coverage internal control independent inspection plan, the Company carried out independent inspection on 9 subsidiary entities and 2 HQ departments. As to any deficiency found in the assessment, the Company urged all entities and departments to strictly satisfy the requirements for "high indicators, practicable measures, and strict examination", develop the rectification measures, define the human resources, define the objectives, define the period, define the responsibilities, define the rewards or punishments, practise and amend immediately, modify in practice, and further improve the Company's internal control system.

Explanation on material deficiencies in internal control during the reporting period

☐ Applicable ☒ Not applicable

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

XVIII. CONTROL ON SUBSIDIARIES WITHIN THE REPORTING PERIOD

☒ Applicable ☐ Not applicable

In order to strengthen the governance structure of subsidiaries, risk control on assets and resources, and increase the Company's overall operating efficiency and risk resistance, the Company has developed the Management Methods on the Authorization of the Board of Directors (《董事會授權管理辦法》), the Implementing Rules of Overall Risk Management (《全面風險管理實施細則》), the Implementing Rules of "Three Majors and One Significant" Decision-making System (《“三重一大”決策制度實施細則》), the Provisional Regulations on Overall Budget Management (《全面預算管理暫行規定》), the Investment Management Methods (《投資管理辦法》), the Management Methods on Engaging External Lawyers (《聘用社會律師管理辦法》), and the Contractual Assets Management Requirements (《合同資產管理規定》), under the Company Law, the Securities Law and the Articles of Association.

The Company exercises shareholder's rights and monitor the governance of subsidiaries, by delegating directors, supervisors and executives to subsidiaries, and daily monitoring the operation, finance, major investments, legal affairs, human resources, among other means.

Additionally, in 2021, the Company carried out internal control independent inspection on its member entities, and tracked any internal control defects found in the inspection, until all deficiencies and defects were rectified, and regularly tracked the overall risk management of all entities, instructed subsidiaries and committed itself to lowering operational risk, control risk, and minimizing the probability of risk events.

Within the reporting period, the Company had no additional subsidiary due to acquisition.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

XIX. PARTICULARS OF INTERNAL CONTROL AUDIT REPORT

✓ Applicable ☐ Not applicable

The Company held the 24th meeting of the Audit Committee of the 3rd Board of Directors on 24 March 2022 and held the 46th meeting of the 3rd Board of Directors on 28 March 2022, which considered and adopted the 2021 Annual Audit Report on Internal Control of China Aluminum International Engineering Corporation Limited (《中鋁國際工程股份有限公司2021年度內部控制審計報告》), pursuant to which our auditor WUYIGE Certified Public Accountants LLP confirmed that the Company has maintained effective internal control over financial reporting in all material aspects. For details, refer to the 2021 Annual Audit Report on Internal Control of China Aluminum International Engineering Corporation Limited disclosed on SSE (www.sse.com.cn) on the same day as this Annual Report.

Whether the internal control audit report is disclosed: Yes

Type of opinion on the internal control audit report: Standard unqualified opinion

XX. LISTED COMPANY GOVERNANCE SELF-CHECK AND RECTIFICATION

In accordance with the requirements of the Notice on Launching Special Actions on Corporate Governance of Listed Companies (《關於開展上市公司治理專項行動的通知》) issued by the CSRC, the Company conducted a comprehensive and serious self-inspection on its corporate governance in accordance with the Special Self-Inspection Checklist for Corporate Governance of Listed Companies (《上市公司治理專項自查清單》), and found that the Company needs further improvement and strengthening in the following aspects:

- (i) The term of office of the Board of Directors and the Board of Supervisors has been extended for change of session, and current independent directors are holding office for more than 6 years consecutively. On 7 March 2022, the Company held the 45th meeting of the 3rd Board of Directors, which passed the Motion to Nominate Candidates for Non-independent Directors to the 4th Board of Directors of the Company (《關於提名公司第四屆董事會非獨立董事候選人的議案》), and the Motion to Nominate Candidates for Independent Directors to the 4th Board of Directors of the Company (《關於提名公司第四屆董事會獨立董事候選人的議案》), on 8 March 2022, the Company published the Notice to Convene the 1st Extraordinary General Meeting of Chalieco for the Year 2022 (Notice No. 2022-013) (《中鋁國際工程股份有限公司關於召開2022年第一次臨時股東大會的通知》), and on 22 March 2022, the Company published the Notice to Postpone the 1st Extraordinary General Meeting of Chalieco for the Year 2022 (Notice No. 2022-017) (《中鋁國際工程股份有限公司關於2022年第一次臨時股東大會的延期公告》), which contemplated to hold the 1st extraordinary general meeting on 8 April 2022, to elect directors to the 4th session of the Board of Directors and shareholder representative supervisors.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

- (II) A few directors, supervisors absent from general meeting, a few executives absent from general meeting, due to other work assignments. All directors, supervisors and executives of the Company attended the general meeting, unless otherwise required by work assignments, in which event, the Company shall disclose the absence of any director, supervisor or executive who is absent from the general meeting. The Company will further strengthen the performance of duties and responsibilities by directors, supervisors and senior management, to ensure their timely attendance and presence at general meeting.

In the future, the Company will continue to follow the requirements of relevant regulatory regulations to further improve the Company's standard operation level and the effectiveness of corporate governance, and promote the Company's sustainable, healthy and stable development.

XXI. OTHER INFORMATION

✓ Applicable ☐ Not applicable

(I) Compliance With The Code For Securities Transactions

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers ("Model Code") set out in Appendix 10 to the HKEX Listing Rules as the code of conduct for dealings in the securities of the Company by all of our Directors and Supervisors. Having made specific enquiries with the Directors and Supervisors, all Directors and Supervisors have confirmed that they have strictly complied with the standards stipulated in the Model Code during the reporting period. The Company has also set up guidelines in respect of the dealings by its relevant employees (as defined in the HKEX Listing Rules) in the Company's securities, which are on no less exacting terms than the Model Code. The Company is not aware of any breach of the guidelines by its relevant employees.

The Board of Directors will examine the corporate governance practices and operation of the Company from time to time so as to ensure the compliance with relevant requirements under the HKEX Listing Rules and to safeguard Shareholders' interests.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(II) Investor Relations

1. Investor relations activities

On 16 April 2021, the Company arranged the chairman, president, the secretary of the Board and relevant personnel of various departments to participate in the 2020 annual results briefing to answer investors' questions about the Company's 2020 annual results, production and operation, through online interaction.

On 9 September 2021, the Company arranged the chairman, president, secretary of the Board and relevant personnel of various departments to participate in the 2021 semi-annual results briefing to answer investors' questions.

On 23 September 2021, the chairman, president, and secretary of the Board of the Company participated in the event of "2021 Collective Reception Day for Investors of SSE Listed Companies in Beijing" to communicate with investors online on issues such as the Company's management of market value.

In addition, the Company responded to questions raised by investors in a timely manner through SSE e-interaction platform, investor hotline, dedicated email and other means and had sufficient communication with investors.

2. Information disclosure

The Company issued 105 announcements on the website of the SSE, and issued 120 announcements in Chinese and 49 announcements in English on the website of the HKEX.

(III) Revision to the Articles of Association During the Reporting Period

In 2021, the Company revised the Articles of Association.

SECTION 4 CORPORATE GOVERNANCE (CORPORATE GOVERNANCE REPORT)

(IV) Company Secretary

In order to comply with Rule 3.29 of the Listing Rules of the Hong Kong Stock Exchange, as of 31 December 2021, the Company secretary participated in no less than 15 hours of relevant professional training for the year.

(V) Directors' Responsibility for the Financial Statements

The Board of Directors acknowledged its responsibility for preparing the financial statements of the Group for the year ended 31 December 2021.

The Board of Directors is responsible for presenting a clear and understandable assessment of annual and interim reports, price-sensitive information and other disclosures as required under the HKEX Listing Rules and other regulatory requirements. The management has provided the Board with such necessary explanation and information to enable the Board to make an informed assessment of the financial information and position of the Group for the consideration and approval by the Board.

There are no material uncertainties relating to events or conditions that may cast significant doubt on the Company's ability to operate as a going concern.

In addition, appropriate insurance coverage has been arranged by the Company against possible legal proceedings and liabilities to be taken against the directors.

(VI) Dividend policy of the Company

For details, please refer to "XV. Proposal for Profit Distribution or for Converting Capital Reserve into Share Capital" under "Section 4 Corporate Governance (Corporate Governance Report)" of this report.

SECTION 5 ENVIRONMENTAL AND SOCIAL RESPONSIBILITIES

I. ENVIRONMENTAL INFORMATION

(I) Environmental protection information of companies and their major subsidiaries on the watch list of key pollutant discharging entities published by the environmental protection authority

☐Applicable ☒Not applicable

(II) Explanation of environmental protection information of companies not on the watch list of key pollutant discharging entities

☒Applicable ☐Not applicable

Chalieco adhered to the guidance of Xi Jinping's ecological civilization thought, thoroughly implemented the new development concept, and strictly abided by the national environmental protection laws and regulations. The Company continued to deepen its internal environmental protection work, discharged various pollutants in compliance with laws and regulations, strengthened the prevention and control of pollution at the front line of production and construction, and earnestly fulfilled the main responsibility for environmental protection among enterprises.

The first is to thoroughly study and implement Xi Jinping's thoughts on ecological civilization and the decisions and deployments of the Party Central Committee, the State Council and the Ministry of Ecology and Environment. The Company shall actively carry out the study and promotion of Xi Jinping's new thoughts on ecological civilization construction, and carry out in – depth integration of Xi Jinping's ecological civilization thoughts and business, thereby achieving consistent learning, promotion, guidance and application.

The second is to continuously strengthen the construction of the environmental management system, implement the risk management and control system by level, formulate annual internal audit and external audit work plans, and organize the implementation according to the plan. The Company underwent the construction of the CAHS and CAHE management systems in a comprehensive manner, conscientiously drew inferences about the problems discovered in the audit process, and earnestly carried out work of "learning by analogy" thereby striving to achieve continuous improvement and steady enhancement of system operation.

The third is to strive to improve the level of essential environmental protection work and strengthen source control. Each design company of the Company carried out design work in strict accordance with environmental protection standards and regulations, and timely updated the standards implemented during the design process to ensure that the designs of products fulfill environmental protection requirements. The Company encouraged design companies to strengthen the design optimization of energy-saving and emission-reduction technical solutions in the design process, and carry out research on new technologies and new manufacturing processes. Moreover, the Company actively advocated the research and development of new technologies, new materials and new products, and promoted and facilitated environmental protection work in a comprehensive manner.

SECTION 5 ENVIRONMENTAL AND SOCIAL RESPONSIBILITIES

The fourth is to strengthen the management and control of noise, sewage, waste, dust, and exhaust gas during construction and production, and strictly comply with the requirements of the local government regarding the project to equip with environmental protection equipment and facilities such as dust and noise reduction equipment, spray facilities, water trucks, fog machines, and dust monitoring devices. The Company set up fences and access control systems to achieve complete sealing management. It planned and managed the construction site by partition, and paved both permanent and temporary road surface, so that the road in the site area was completely hardened. Before the excavation of each part of the project, a fog machine was used to reduce dust. The muck was transported to the designated location, and the loess and muck accumulation area were exposed on site. Dust nets were laid to ensure that the waste residue was fully covered. The Company sprinkled the work sites to reduce dust, so that the cleaning of the sprinkling sweeping was completely cleaned. The muck transportation vehicles used airtight containers so that the materials were completely sealed and transported. The Company set up car-wash pools, car-wash stations and other devices at the entrance and exit of the sites to ensure that the vehicles were completely cleaned.

In 2021, the overall environmental protection situation of Chalieceo was promising. There were no sudden environmental incidents and no major administrative penalties in respect of environmental protection. The environmental protection awareness among leading cadres at all levels and all employees has been continuously improved. Each company has made significant improvements in environmental protection system construction, environmental risk management and control, solid waste control, and environmental protection investment.

1. Administrative punishments due to environmental problems

☐Applicable ☒Not applicable

2. Other environmental information disclosed by key pollutants discharging entities

☐Applicable ☒Not applicable

3. Reason why other environmental information are not disclosed

☐Applicable ☒Not applicable

SECTION 5 ENVIRONMENTAL AND SOCIAL RESPONSIBILITIES

(III) Information conducive to ecological protection, pollution control, and environmental responsibilities fulfillment

☐Applicable ☒Not applicable

(IV) Measures to reduce carbon emissions during the reporting period and their effects

☐Applicable ☒Not applicable

II. SOCIAL RESPONSIBILITIES FULFILLMENT

☒Applicable ☐Not applicable

Please refer to the 2021 Annual Social Responsibilities Report of China Aluminum International Engineering Corporation Limited disclosed at the SSE website (<http://www.sse.com.cn>) and the website of the HKEX (www.hkex.com.hk) for details of the Company's works of fulfillment of social responsibility.

III. CONSOLIDATE AND EXPAND THE ACHIEVEMENTS OF POVERTY RELIEF AND RURAL REVITALIZATION

☒Applicable ☐Not applicable

In 2021, the Company deeply carried out the rural revitalization tasks assigned by the higher-level unit and the local governments, fully absorbed the practices and experience of poverty relief, firmly insisted on the principle of "old policies sustaining before new policies issue", and solved the real difficulties and urgent problems existing in the poverty relief expansion in the target villages to be helped, to ensure the implementation of responsibilities, policies and work. GAMI continued target supports, helped rural revitalization, purchased organic rice, chrysanthemum tea and other agricultural products and byproducts from the target villages, in a total amount of RMB500,000; since September 2015, CNPT is supporting Wangcun village in Xin'an county of Luoyang city, helping villagers to consolidate the outcomes of poverty relief, and march toward the sustainable road to growing rich. CINF and Changkan Institute village supporting teams and all supporting cadres insisted on door-to-door investigation, deeply analyzed the reason for poverty in some families, held seminars, and developed feasible rural revitalizing plans and measures from family to family, from village to village. The labour unions of all member entities purchased agricultural products from target villages by means of "consumer poverty relief, production-to-order", invested more than RMB1.50 million totally in supporting industrial development, fully drove the villages to develop in revitalization, and make due contributions to the construction of a more beautiful China.

SECTION 6 KEY MATTERS

I. PERFORMANCE OF COMMITMENTS

(I) Commitments of the Company and its actual controller, shareholders, related parties, acquirers that were made in or continued into the reporting period

✓Applicable ☐Not applicable

Background of commitment	Type of commitment	The party making commitment	Content of commitment	Time and period of commitment	Whether there is a validity for performance	Strictly performed in a timely manner or not	Specify the reason for failure to perform in time	Specify the next step plan in case of failure to perform in time
IPO commitment ¹	Restricted shares	Chinalco	Commitment on shares lock-up and intention to reduce shareholdings	Within 3 years from the date of listing of A shares and within 2 years after the expiration of the lock-up period	Yes	Yes	N/A	N/A
	Restricted shares	Luoyang Institute	Commitment on shares lock-up and intention to reduce shareholdings	Within 3 years from the date of listing of A shares and within 2 years after the expiration of the lock-up period	Yes	Yes	N/A	N/A
	Other	Chinalco, the Company, the Company's non-independent Directors and senior management	Share price stabilization plan	Within 3 years from the date of listing of A shares	Yes	Yes	N/A	N/A
	Other	Directors and senior management of the Company	Making up for diluted return for the current period	Long term	Yes	Yes	N/A	N/A
	Solve the competition of peers	Chinalco	Peer competition	Long term	Yes	Yes	N/A	N/A
IPO commitment	Solve related transactions	Chinalco	Related transaction	Long term	Yes	Yes	N/A	N/A
	Solve related transactions	Chinalco Finance	Credit facility service provided by related party	Long term	Yes	Yes	N/A	N/A
	Other	Directors, supervisors and senior management of the Company	Qualifications	Long term	Yes	Yes	N/A	N/A
	Other	Chinalco	Land title defect	Long term	Yes	Yes	N/A	N/A
	Other	The Company	Housing related business	Long term	Yes	Yes	N/A	N/A
	Other	Chinalco, the Company, the Company's Directors, Supervisors and senior management, sponsors, accountants, lawyers	Commitment that there are no false records, misleading statements or material omissions in the Prospectus	Long term	Yes	Yes	N/A	N/A

Notes: Chinalco and Luoyang Institute made following commitment to the trading of restricted shares held by them in the Prospectus of Chalieco IPO and Listing (《中鋁國際工程股份有限公司首次公開發行股票並上市招股說明書》): From the date of commitment to the completion of IPO and listing of A shares, Chinalco or Luoyang Institute shall not reduce their shareholding in the Company.

SECTION 6 KEY MATTERS

Within 36 months from the date of IPO and listing of A shares, Chinalco and Luoyang Institute shall not transfer or entrust others to manage the shares issued before the IPO of A shares of the Company directly or indirectly held by Chinalco and Luoyang Institute, nor shall the Company repurchase any of such shares held directly or indirectly by Chinalco and Luoyang Institute.

Within six months from the date of IPO and listing of A shares, if the closing price of the Company's A shares is lower than the issue price of A shares for 20 consecutive trading days, or if the closing price is lower than the issue price at the end of the six-month period after the listing of A shares (if the ending date is not a trading day, then first trading day after that day), then the lock-up period of the Company's shares held by Chinalco and Luoyang Institute will be automatically extended by 6 months.

If the Company's shares are subject to ex-rights and ex-dividend events such as dividend distribution, bonus shares, and conversion of capital reserves to share capital during the above-mentioned period, the issue price shall be adjusted accordingly.

Chinalco and Luoyang Institute have strictly fulfilled the above commitments, and there is no situation where the relevant commitments are not fulfilled and affect the listing and trading of the restricted shares. For details, please refer to the Listing and Trading of the Restricted Shares in the IPO of Chalieceo (《中鋁國際工程股份有限公司首次公開發行限售股上市流通公告》) disclosed on 25 August 2021 (Ann No. Temp 2021-035). The above lock-up period has expired and the restricted A shares become listed and tradable since 31 August 2021.

Within two years after the expiry of lock-up period, Chinalco and Luoyang Institute shall reduce their holdings of the Company's A-shares by not more than 3% of the total Company shares held by Chinalco and Luoyang Institute, and reduce their holdings of the Company's A-shares within one calendar year, in a total amount not exceeding 2% of the total Company shares held by Chinalco and Luoyang Institute. Chinalco and Luoyang Institute will reduce their holdings of the Company's A shares through legal means such as the centralized bidding trading system of the stock exchanges, the block trading system or agreement transfer, and perform the necessary approval procedures and information disclosure obligations at laws. The number of holdings and other information will be notified to the Company, and the Company will make an announcement in a timely manner, and the shareholding may not be reduced until 3 trading days from the date of the announcement. The reduction price shall not be lower than the issue price in the IPO of the Company's A shares.

If Chinalco or Luoyang Institute violates the above commitments, the profits from illegal operations will belong to the Company. If Chinalco or Luoyang Institute does not hand over the profits from illegal operations to the Company, the Company may withhold the part of the cash dividends payable to the Company, in the amount equal to such profits from illegal operations that should be handed over to the Company.

SECTION 6 KEY MATTERS

(II) If any profit forecast exists for an asset or project of the Company, and the reporting period falls into the forecast period, the Company should specify whether the asset or project meets the profit forecast and provide reasons

☐ Yes ☐ No ☒ Not applicable

(III) Realization of guaranteed performance and its impact on goodwill impairment test

☐ Applicable ☒ Not applicable

II. FUNDS OCCUPIED BY THE CONTROLLING SHAREHOLDER OR ITS RELATED PARTIES FOR NON-OPERATING PURPOSE

☐ Applicable ☒ Not applicable

III. GUARANTEES FOR VIOLATION OF REQUIRED PROCEDURES

☐ Applicable ☒ Not applicable

IV. EXPLANATION OF THE BOARD OF DIRECTORS ON ISSUANCE OF A “NON-STANDARD AUDITING REPORT” BY THE AUDITOR

☐ Applicable ☒ Not applicable

SECTION 6 KEY MATTERS

V. ANALYSIS OF REASONS OF CHANGES IN ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES OR CORRECTION TO SIGNIFICANT ACCOUNTING ERRORS AND THEIR IMPACT

(I) Analysis of reasons and impact of changes in accounting policies and accounting estimates of the Company

☒ Applicable ☐ Not applicable

On 28 March 2022, the Company held the 46th meeting of the 3rd Board of Directors, which passed the Motion to Change the Accounting Policies for Government Grants of the Company (《關於變更政府補助會計政策的議案》), to approve the Company to change the the government grants accounting policies since 2021, and change the accounting method of government grants that meet the conditions for netting method from grossing method to netting method, within the scope defined by the ASBE 16: Government Grants (《企業會計準則第16號－政府補助》), meanwhile, make retrospective adjustments to previous data pursuant to the ASBE 28: Changes of Accounting Policies and Accounting Estimates and Error Correction (《企業會計準則第28號－會計政策、會計估計變更和差錯更正》). These changes in government grants accounting policies are mainly to write off asset-related government grants against the book value of said asset, which will no longer be recognized in deferred revenue; write off the portion of revenue-related government grants used to reimburse the relevant costs, expenses or losses incurred by the enterprise against the relevant costs, expenses or non-operating expenses, which will no longer be recognized in other revenue or non-operating income; other types of government grants than the above mentioned will still be recognized in the deferred revenue, other revenue or non-operating income. Such changes in accounting policies is a reclassification of different items, without any influence on the net assets, profit or cash flow of the Company.

Such changes in accounting policies have following impacts on the balance sheet items and income statement items dated 31 December 2020:

1. Adjustments to balance sheet

(Expressed in RMB)

Item	As at 31 December 2020		Adjustment
	Before adjustment	Adjusted	
Fixed assets	2,328,805,686.59	2,321,619,851.59	-7,185,835.00
Intangible assets	1,180,268,403.73	1,162,275,767.68	-17,992,636.05
Deferred income	85,234,504.39	60,056,033.34	-25,178,471.05

SECTION 6 KEY MATTERS

2. Adjustments to income statement

(Expressed in RMB)

Item	January to December 2020		Adjustment
	Before adjustment	Adjusted	
Operating cost	20,952,852,459.21	20,921,430,158.25	-31,422,300.96
Administrative expense	1,037,819,652.56	1,000,371,082.96	-37,448,569.60
Other revenue	70,017,317.19	2,849,413.87	-67,167,903.32
Non-operating income	69,331,875.05	67,230,365.76	-2,101,509.29
Non-operating expenditure	12,547,061.68	12,148,519.63	-398,542.05

The independent directors and the Board of Supervisors of the Company agree with such changes in accounting policies, and believe that such changes are made in the scope specified under foreign and domestic accounting standards, and the updated accounting policies could make our financial statements or reports more accurately reflect the business nature of the Company, and such changes would not have any influence on the net assets, profit or cashflow of the Company, without prejudice to the interests of entire shareholders and the Company; the consideration process on such changes are compliant with relevant laws, regulations and the Articles of Association.

(II) Analysis of reasons for correction to significant accounting errors and its impact

☐Applicable ☒Not applicable

(III) Communication with the former auditor

☐Applicable ☒Not applicable

(IV) Other descriptions

☐Applicable ☒Not applicable

SECTION 6 KEY MATTERS

VI. APPOINTMENT AND REMOVAL OF AUDITOR

(Expressed in RMB)

Current appointment

Name of domestic auditor	WUYIGE Certified Public Accountants LLP
Remuneration of domestic auditor	4,804,000.00
Years of service of domestic auditor	6
Name of overseas auditor	/
Remuneration of overseas auditor	/
Years of service of overseas auditor	/

	Name	Remuneration
Internal control auditor	WUYIGE Certified Public Accountants LLP	742,000.00
Financial advisor	/	/
Sponsor	/	/

Explanation of appointment and removal of the auditor

☐ Applicable ☒ Not applicable

Explanation on change in the auditor during the auditing period

☐ Applicable ☒ Not applicable

VII. POTENTIAL RISK OF SUSPENSION OF LISTING

(I) Reasons for the suspension of listing

☐ Applicable ☒ Not applicable

(II) Proposed countermeasures of the Company

☐ Applicable ☒ Not applicable

(III) Circumstance in which the Company faces de-listing and reasons

☐ Applicable ☒ Not applicable

SECTION 6 KEY MATTERS

VIII. BANKRUPTCY AND REORGANIZATION RELATED ISSUES

☐ Applicable ☒ Not applicable

IX. MATERIAL LITIGATION AND ARBITRATION

☒ The Company was involved in any material litigation or arbitration during the year

☐ The Company was not involved in any material litigation or arbitration during the year

(I) Litigation and arbitration disclosed in provisional announcements and without subsequent development

☒ Applicable ☐ Not applicable

Summary and type of the issue

Reference

Shenyang branch of the Company vs. China Nonferrous Metal Industry Xi'an Geotechnical Engineering Company (中國有色金屬工業西安岩土工程有限公司): Dispute over engineering construction contract

For details, please refer to the Company's Ann No. Temp 2021-021 issued by the Company on the designated media for information disclosure on 1 April 2021.

Sixth Metallurgical Company, a wholly-owned subsidiary of the Company, vs. Kaiyang Ronghe Urban Development Investment Co., Ltd. (開陽縣融和城市發展投資有限公司): Dispute over engineering construction contract

For details, please refer to the Company's Ann No. Temp 2020-002 and Ann Temp No. 2021-024 issued by the Company on the designated media for information disclosure on 4 January 2020 and 1 May 2021 respectively.

Twelfth Metallurgical Company, a wholly-owned subsidiary of the Company, vs. Northern Heavy Industries Group Co., Ltd. (北方重工集團有限公司): Dispute over confirmation of bankruptcy claims

For details, please refer to the Company's Ann No. Temp 2021-025 issued by the Company on the designated media for information disclosure on 8 May 2021.

Guizhou Huaren New Material Co., Ltd. (貴州華仁新材料有限公司) vs. Guiyang branch of the Company: Dispute over general project contract

For details, please refer to the Company's Ann No. Temp 2021-027 issued by the Company on the designated media for information disclosure on 26 May 2021.

Sixth Metallurgical Company, a wholly-owned subsidiary of the Company, vs. Yingkou Zhongwang Aluminum Business Co., Ltd. (營口忠旺鋁業有限公司): Dispute over engineering construction contract

For details, please refer to the Company's Ann No. Temp 2019-051, Ann No. Temp 2019-054, Ann No. Temp 2021-029 issued by the Company on the designated media for information disclosure on 17 July 2019, 2 August 2019, and 10 June 2021 respectively.

SECTION 6 KEY MATTERS

Summary and type of the issue

Reference

Twelfth Metallurgical Company, a wholly-owned subsidiary of the Company, vs. Pilatus Aircraft Maintenance Engineering (Chongqing) Co., Ltd. (皮拉圖斯飛機維修工程(重慶)有限公司): Dispute over engineering construction contract

For details, please refer to the Company's Ann No. Temp 2021-031 issued by the Company on the designated media for information disclosure on 13 July 2021.

Sixth Metallurgical Company, a wholly-owned subsidiary of the Company, vs. Tianjin Zhongwang Aluminum Co., Ltd. (天津忠旺鋁業有限公司): Dispute over engineering construction contract

For details, please refer to the Company's Ann No. Temp 2021-034 issued by the Company on the designated media for information disclosure on 4 August 2021.

GAMI Project Contracting Co., Ltd. (貴陽鋁鎂設計研究院工程承包有限公司), a wholly-owned subsidiary of the Company, vs. Anshun Xixiu District Town Investment Development Co., Ltd. (安順市西秀區城鎮投資發展有限公司) and Anshun Huada Real Estate Development Co., Ltd. (貴州省華大房地產開發有限公司): Dispute over guarantee contract

For details, please refer to the Company's Ann No. Temp 2020-035, Ann No. Temp 2020-063, Ann No. Temp 2021-036 issued by the Company on the designated media for information disclosure on 3 June 2020, 24 November 2020, and 27 August 2021 respectively.

China Aluminum Equipment, a wholly-owned subsidiary of the Company, vs. Shandong Homerun Tires Co., Ltd. (山東佳輪輪胎有限公司), SHANDONG HOMERUN TIRES CO., LTD, Mr. GUAN Zheng, Shandong Acme Rubber Group Co., Ltd. (山東科邁橡膠集團有限公司), Qingdao Powerich Tyre Co., Ltd. (青島福邁馳輪胎有限公司), and Qingdao Zhonghaoxuan International Trading Co., Ltd. (青島中浩軒國際貿易有限公司): Dispute over contract

For details, please refer to the Company's Ann No. Temp 2021-046 issued by the Company on the designated media for information disclosure on 7 December 2021.

Sixth Metallurgical Company, a wholly-owned subsidiary of the Company, vs. Kaili City Transportation Bureau, Kaili City People's Government: Dispute over building construction contract

For details, please refer to the Company's Ann No. Temp 2021-044 and Ann No. Temp 2021-059 issued by the Company on the designated media for information disclosure on 4 November 2021 and 25 December 2021 respectively.

SECTION 6 KEY MATTERS

Summary and type of the issue

Guiyang branch of the Company vs. Guizhou Huaren New Material Co., Ltd. (貴州華仁新材料有限公司): Dispute over building construction contract

The Company vs. Vietnam National Coal and Mineral Industries Holding Corporation Limited (越煤集團): Dispute over contract

Reference

For details, please refer to the Company's Ann No. Temp 2020-062 and Ann No. Temp 2022-001 issued by the Company on the designated media for information disclosure on 20 October 2020 and 14 January 2022 respectively.

For details, please refer to the Company's Ann No. Temp 2022-002 issued by the Company on the designated media for information disclosure on 14 January 2022.

(II) Particulars of litigation and arbitration events not disclosed in temporary announcements or with subsequent development

✓Applicable □Not applicable

(Expressed in RMB'0,000)

During the reporting period:

Plaintiff (Applicant)	Defendant (Respondent)	Party with several and joint liability	Litigation or arbitration	Basic information of litigation (arbitration)	Amount concerning litigation (arbitration)	Whether estimated liability arose from the litigation (arbitration) and amount	Current status of the litigation (arbitration)	Results of trial of litigation (arbitration) and effects thereof	Enforcement of judgment of litigation (arbitration)
QIU Haijie, ZHANG Jun, GUO Zhiming, ZENG Minghai	Sixth Metallurgical Company, Hohhot Economic and Technological Development Zone Boyuan Real Estate Development Co., Ltd. (呼和浩特經濟技術開發區博園房產公司)	None	Litigation	Dispute over building construction contract	6,095	No	Under trial	Note 1	None
Sixth Metallurgical Company	Zhonghe Anshan Shengshide Real Estate Co., Ltd. (鞍山盛仕德置業公司)	None	Litigation	Dispute over building construction contract	5,500	No	Under trial	Note 2	None
Sixth Metallurgical Company	Henan Hongxuan Real Estate Co., Ltd. (河南鴻軒房地產有限公司)	None	Litigation	Dispute over building construction contract	7,954	No	Under enforcement	Note 3	None
China Fourth Metallurgical Construction Co., Ltd. (中國第四冶金建設有限公司)	CINF	None	Litigation	Dispute over building construction contract	8,400	No	Under trial	None	None

SECTION 6 KEY MATTERS

Note 1: On 2 November 2021, the first-instance judgment ruled that: 1) Sixth Metallurgical Company should pay to Mr. QIU Haijie et al. the engineering costs RMB19,140,470.35 plus interest; 2) Sixth Metallurgical Company should pay to Mr. QIU Haijie et al. the engineering costs RMB4,021,391.80 plus interest; 3) Sixth Metallurgical Company should refund to Mr. QIU Haijie et al. the deposit RMB200,000; 4) Sixth Metallurgical Company should refund to Mr. QIU Haijie et al. the deposit RMB200,000; 5) Hohhot Economic and Technological Development Zone Boyuan Real Estate Development Co., Ltd. (呼和浩特經濟技術開發區博園房產公司) should be liable to the extent of RMB12,151,377. Sixth Metallurgical Company and Mr. QIU Haijie et al. filed the appeal, and the second-instance trial is underway.

Note 2: On 16 September 2021, the first instance judgment ruled that Zhonghe Anshan Shengshide Real Estate Co., Ltd. (鞍山盛仕德置業公司) should pay to Sixth Metallurgical Company the engineering costs RMB55,107,000, and meanwhile confirmed that Sixth Metallurgical Company should have the priority to be indemnified from the portion of engineering costs RMB55,107,000. Shengshide filed the appeal, and the second instance trial is underway.

Note 3: On 23 August 2021, Henan Higher People's Court ruled that Henan Hongxuan Real Estate Co., Ltd. (河南鴻軒房地產有限公司) should pay the engineering costs RMB448,479,900 plus interest to Sixth Metallurgical Company and its No. 1 Branch Company; Sixth Metallurgical Company and its No. 1 Branch Company should have the priority to be indemnified from buildings 1, 2 & 3 of the Anyang ULO Lifestyle Plaza (安陽市ULO生活廣場) project, to the extent of RMB48,478,100. Currently, the enforcement is underway.

(III) Other description

☐Applicable ☒Not applicable

X. PUNISHMENTS UPON THE LISTED COMPANY AND ITS DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT, CONTROLLING SHAREHOLDER, BENEFICIAL OWNER, ACQUIRER AND RECTIFICATIONS

☐Applicable ☒Not applicable

XI. CREDIBILITY OF THE COMPANY AND ITS CONTROLLING SHAREHOLDER AND BENEFICIAL OWNER DURING THE REPORTING PERIOD

☒Applicable ☐Not applicable

During the reporting period, the Company, and its controlling shareholder and beneficiary owner were in good credit conditions and did not have any bad credit conditions, such as failure to perform any effective judgment of the court and failure to pay any significant amounts of debts when due.

XII. SIGNIFICANT RELATED PARTY (CONNECTED) TRANSACTIONS

Significant related party (connected) transactions of the Group during the year ended 31 December 2021 are set out in Note "12 RELATED PARTIES AND THEIR TRANSACTIONS" to the financial statements. Some of the above related party (connected) transactions constitute connected transactions under the SSE Listing Rules, and also constitute connected transactions as prescribed in Chapter 14A under the HKEX Listing Rules. The aforementioned related party transactions have complied with the requirements of the SSE Listing Rules and Chapter 14A under the HKEX Listing Rules. Particulars of them are as follow:

SECTION 6 KEY MATTERS

(I) Non-exempt continuing related party (connected) transactions

The Group conducted certain connected transactions during the year which also constituted non-exempt continuing connected transactions under Chapter 14A of the HKEX Listing Rules.

The annual caps and actual transaction amount of such continuing related party (connected) transactions for 2021 are set out in the following table:

Events of related party (connected) transactions	Related parties (connected persons)	2021	
		annual cap (RMB'0,000)	annual actual transaction amount (RMB'0,000)
1. Provision of engineering services by the Group	Chinalco	700,000.00	160,987.78
2. Provision of commodities by the Group	Chinalco	80,000.00	18,613.58
3. Provision of general services by the Group	Chinalco	10,000.00	510.52
4. Provision of general services to the Group	Chinalco	16,000.00	3,505.16
5. Provision of commodities to the Group	Chinalco	100,000.00	4,024.28
6. Provision of financial services to the Group – Deposit service	Chinalco Finance	600,000.00	394,093.06
7. Provision of financial services to the Group – Credit service	Chinalco Finance	800,000.00	396,100.00
8. Provision of financial services to the Group – Factoring service	Chinalco Finance	200,000.00	–
9. Provision of financial services to the Group-Other financial services	Chinalco Finance	340.00	–
10. Provision of factoring financing services to the Group	Chinalco Commercial Factoring Co., Ltd. (中鋁商業)	100,000.00	14,000.00
11. Provision of financial services such as financial leasing to the Group	Chinalco Financial Leasing Co., Ltd. (中鋁融資租賃)	100,000.00	–

1. Provision of engineering services by the Group

The Company entered into an engineering service master agreement with Chinalco on 30 October 2019, pursuant to which, the Group could provide engineering services, including construction engineering, transfer of technologies (right of use), project supervision, surveying, engineering design, engineering consultation, device agency and sale of device, engineering management and other services related to engineering to Chinalco and/or its associates from time to time. For further details of the transaction, please refer to the A-share special announcement “Announcement on Re-signing of the ‘Engineering Services Mater Agreement’ and Daily Related Party Transactions” (《關於重新簽署〈工程服務總協議〉暨日常關聯交易公告》) issued by the Company on 31 October 2019 and the H-share circular dated 13 December 2019.

The initial term of the engineering service master agreement commenced from 1 January 2020 and shall expire on 31 December 2022, unless terminated at any time by either party giving at least 3 months’ prior written notice to the other party with mutual consensus after negotiation.

SECTION 6 KEY MATTERS

Chinalco is the controlling shareholder of the Company. Pursuant to the listing rules of the listing places, Chinalco and its subsidiaries are the related parties (connected persons) of the Company. During the reporting period, the annual cap of this continuing related party (connected) transaction for 2021 was RMB7,000 million and the actual transaction amount was RMB1,609,877,800.

2. Provision of commodities by the Group

The Company entered into a general sale and purchase agreement of commodities with Chinalco on 30 October 2019, pursuant to which, the Group could provide products of the Group to Chinalco and/or its associates from time to time as portion of our equipment manufacturing business. These products mainly include the equipment, raw materials and commodities required for the production and operation of Chinalco. For further details of the transaction, please refer to the A-share special announcement “Announcement on Re-signing of the ‘Mater Agreement in Relation to the Sale and Purchase of Commodities’ and Daily Related Party Transactions” (《關於重新簽署<商品買賣總協議>暨日常關聯交易公告》) issued by the Company on 31 October 2019 and the H-share circular dated 13 December 2019.

The initial term of the general sale and purchase agreement of commodities commenced from 1 January 2020 and shall expire on 31 December 2022, unless terminated at any time by either party giving at least three months’ prior written notice to the other party with mutual consensus after negotiation. Relevant subsidiaries or Associates of both parties shall enter into a separate contract which states specific terms and conditions based on the principles provided under the general sale and purchase agreement of commodities.

Chinalco is the controlling shareholder of the Company. Pursuant to the listing rules of the listing places, Chinalco and its subsidiaries are the related parties (connected persons) of the Company. During the reporting period, the annual cap of this continuing related party (connected) transaction for 2021 was RMB800 million and the actual transaction amount was RMB186,135,800.

3. Provision of general services by the Group

The Company entered into a master agreement of general services with Chinalco on 30 October 2019, pursuant to which, the Company could provide certain categories of services to Chinalco and/or its associates from time to time, mainly including property leasing, warehousing and transportation and provision of operation management, labour services and services related to training. For further details of the transaction, please refer to the A-share special announcement “Announcement on Re-signing of the ‘Comprehensive Services Mater Agreement’ and Daily Related Party Transactions” (《關於重新簽署<綜合服務總協議>暨日常關聯交易公告》) issued by the Company on 31 October 2019 and the H-share circular dated 13 December 2019.

SECTION 6 KEY MATTERS

The initial term of the master agreement of general services commenced from 1 January 2020 and shall expire on 31 December 2022, unless terminated at any time by either party giving at least three months' prior written notice to the other party with mutual consensus after negotiation. Relevant subsidiaries or Associates of both parties shall enter into a separate contract which states specific terms and conditions based on the principles provided under the master agreement of general services.

Chinalco is the controlling shareholder of the Company. Pursuant to the listing rules of the listing places, Chinalco and its subsidiaries are the related parties (connected persons) of the Company. During the reporting period, the annual cap of this continuing related party (connected) transaction for 2021 was RMB100 million and the actual transaction amount was RMB5,105,200.

4. Provision of general services to the Group

The Company entered into a master agreement of general services with Chinalco on 30 October 2019, pursuant to which, Chinalco and/or its associates could provide certain categories of services to the Group from time to time, mainly including warehousing, transportation and property leasing services and provision of technical services, back-up services, labour services and services related to training. For further details of the transaction, please refer to the A-share special announcement "Announcement on Re-signing of the 'Comprehensive Services Mater Agreement' and Daily Related Party Transactions" (《關於重新簽署〈綜合服務總協議〉暨日常關聯交易公告》) issued by the Company on 31 October 2019 and the H-share circular dated 13 December 2019.

The initial term of the master agreement of general services commenced from 1 January 2020 and shall expire on 31 December 2022, unless terminated at any time by either party giving at least 3 months' prior written notice to the other party with mutual consensus after negotiation. Relevant subsidiaries or associates of both parties shall enter into a separate contract which states specific terms and conditions based on the principles provided under the master agreement of general services.

Chinalco is the controlling shareholder of the Company. Pursuant to the listing rules of the listing places, Chinalco and its subsidiaries are the related parties (connected persons) of the Company. During the reporting period, the annual cap of this continuing related party (connected) transaction for 2021 was RMB160 million and the actual transaction amount was RMB35,051,600.

5. Provision of commodities to the Group

The Company entered into a master agreement of sale and purchase of commodities with Chinalco on 30 October 2019, pursuant to which, the Group could purchase certain commodities from Chinalco and/or its associates which shall be used in our engineering and construction contracting business. These commodities mainly include materials such as nonferrous products, manufacturing equipment, cement and engineering equipment and component related to nonferrous industry. For further details of the transaction, please refer to the A-share special announcement "Announcement on Re-signing of the 'Mater Agreement in Relation to the Sale and Purchase of Commodities' and Daily Related Party Transactions" (《關於重新簽署〈商品買賣總協議〉暨日常關聯交易公告》) issued by the Company on 31 October 2019 and the H-share circular dated 13 December 2019.

SECTION 6 KEY MATTERS

The initial term of the master agreement of sale and purchase of commodities commenced from 1 January 2020 and shall expire on 31 December 2022, unless terminated at any time by either party giving at least 3 months' prior written notice to the other party with mutual consensus after negotiation. Relevant subsidiaries or associates of both parties shall enter into a separate contract which states specific terms and conditions based on the principles provided under the general sale and purchase agreement of commodities.

Chinalco is the controlling shareholder of the Company. Pursuant to the listing rules of the listing places, Chinalco and its subsidiaries are the related parties (connected persons) of the Company. During the reporting period, the annual cap of this continuing related party (connected) transaction for 2021 was RMB1,000 million and the actual transaction amount was RMB40,242,800.

6. Provision of financial services to the Group

The Company entered into a new financial services agreement with Chinalco Finance on 29 March 2021, effective for 3 years from the date of approval at the annual general meeting, which would supersede the old agreement.

The general terms are as follow:

Providing financial services to the Group, including deposit services, settlement services, credit services, factoring services and other financial services;

Deposit services:

The Group opens a deposit account with Chinalco Finance and deposits funds into the deposit account with Chinalco Finance based on the principle of freedom of deposit and withdrawal, which may be in form of demand deposit, time deposit, call deposit, agreement deposit, etc.;

The interest rates for deposits on the deposit services provided by Chinalco Finance to the Group will not be lower than the benchmark interest rate for deposits published uniformly by the People's Bank of China from time to time for the deposits with the same term and type, not lower than the interest rate for deposits offered by major commercial banks in the PRC for deposits with the same type during the same period, and not lower than the interest rate for deposits offered by Chinalco Finance to Chinalco and its member entities for deposits with the same type during the same period;

SECTION 6 KEY MATTERS

Chinalco Finance guarantees the safety of the funds deposited by the Group, and pays them in full and in time on demand of the Group. If Chinalco Finance fails to pay the deposit to the Group on time and in full, the Company has the right to terminate this agreement, and can lawfully offset the deposit payable by Chinalco Finance to the Group against the loan from Chinalco Finance to the Group;

During the effective period of this new financial services agreement, the daily deposit balance (including any interest accrued thereon) of the deposit account of the Group shall not exceed RMB6,000,000,000.

Settlement services:

Chinalco Finance provides payment services and collection services to the Group in accordance with the Group's instructions, as well as other auxiliary services related to settlement business;

Chinalco Finance provides the above settlement services for the Group for free;

Chinalco Finance shall ensure the safe operation of the fund settlement network, ensure the safety of funds, control the risk of assets and liabilities, and satisfy the payment requirements of the Group.

Credit services:

Subject to the relevant PRC laws and regulations, Chinalco Finance provides general credit services to the Group according to the operation and development needs of the Group. The Group can use the general credit line provided by Chinalco Finance for loans, bill acceptance, bill discounting, guarantee and other forms of financing business;

Chinalco Finance undertakes to provide the Group with a preferential loan interest rate, which is not higher than the benchmark loan interest rate for similar loans in the same period uniformly issued by the People's Bank of China from time to time, nor higher than the interest rates for similar loans of major domestic commercial banks in China in the same period;

Chinalco Finance shall provide credit to the Group on normal commercial terms without any asset guarantee from the Group;

SECTION 6 KEY MATTERS

During the term of the new financial services agreement, the daily loan balance (including accrued interest) provided by Chinalco Finance to the Group shall not exceed RMB8,000,000,000. The actual transaction amount was RMB3,961,000,000.

Factoring services:

Subject to relevant PRC laws and regulations, Chinalco Finance provides accounts receivable factoring services for the Group according to the Group's operation and development needs;

Chinalco Finance undertakes that the cost of providing factoring services to the Group shall not be higher than the similar cost of major domestic factoring companies in China during the same period;

Specific matters related to factoring services shall be separately signed by both parties;

During the term of the new financial services agreement, the limit of the daily factoring business provided by Chinalco Finance to the Group shall not exceed RMB2 billion.

Other financial services:

Chinalco Finance will provide the Group with entrusted loans and other financial services within its business scope according to the Group's instructions and requirements. Before Chinalco Finance provides other financial services to the Group, both parties shall negotiate and enter into a separate agreement;

The fees charged by Chinalco Finance for the provision of other financial services shall comply with the charging standards set by the People's Bank of China or the China Banking Regulatory Commission for such services, and shall not be higher than the fees charged by major domestic commercial banks in China for similar financial services. During the term of the new financial services agreement, the total fees charged by Chinalco Finance for providing other financial services to the Group for 3 years shall not be higher than RMB10 million.

Subject to this agreement, the Group and Chinalco Finance shall further sign separate contracts/agreements for the provision of relevant specific financial services to agree on specific transaction terms. Such specific contracts/agreements shall follow the principles, terms of this financial service agreement, and relevant legal provisions. For further details of the transaction, please refer to the A-share special announcement "Announcement on the Signing of the 'Financial Service Agreement' with Chinalco Finance Co., Ltd." (《關於與中鋁財務有限責任公司簽署〈金融服務協議〉的關聯交易公告》) issued by the Company on 30 March 2021 and the H-share circular dated 4 June 2021.

As at the Latest Practicable Date, Chinalco directly held 73.56% of the existing issued share capital of the Company, was the controlling shareholder of the Company and became a related party (connected person) of the Company. At the same time, Chinalco directly or indirectly held 100% of Chinalco Finance and was the controlling shareholder of Chinalco Finance. Therefore, Chinalco Finance is regarded as a related party (connected person) of the Company for the purpose of the listing rules of the listing places. Accordingly, the new financial services agreement and the transactions thereunder constitute related party (connected) transactions under the listing rules of the listing places.

SECTION 6 KEY MATTERS

As calculated under the HKEX Listing Rules, the deposit services and their proposed caps and the factoring services and their proposed caps under the new financial services agreement have a maximum applicable percentage of more than 5%, therefore, the deposit services and their proposed caps and the factoring services and their proposed caps under the new financial services agreement are subject to the requirements for announcement, reporting and shareholders' approval under Chapter 14A of the HKEX Listing Rules. As the maximum applicable percentage of the deposit services and their proposed caps under the new financial services agreement is higher than 25% but lower than 75%, the deposit services constitute a major transaction of the Company under Chapter 14 of the HKEX Listing Rules and shall follow the requirements for announcement, reporting and shareholder approval under Chapter 14 of the HKEX Listing Rules.

As Chinalco Finance under the new financial services agreement provides settlement services to the Group free of charge, and each percentage of other financial services (if applicable) complies with the minimum exemption level stipulated in Rule 14A.76 of the HKEX Listing Rules, the settlement services and other financial services may be exempt from the requirements for reporting, announcement and independent shareholders' approval under Rule 14A.76 of the HKEX Listing Rules.

Given that the credit services provided by Chinalco Finance to the Group under the New Financial Services Agreement are on normal commercial terms, no less favourable than the terms on which independent third parties provide similar services to the Company in China, and the Group will not provide credit services in relation to No guarantee, the Credit Services is exempted from the reporting, announcement and independent shareholders' approval requirements pursuant to Rule 14A.90 of the HKEX Listing Rules.

As the maximum applicable percentage of the factoring service and its proposed cap under the new financial services agreement is higher than 5% but lower than 25%, the factoring service constitutes a discloseable transaction of the Company under Chapter 14 of the HKEX Listing Rules. It is also subject to the announcement and reporting requirements under Chapter 14 of the HKEX Listing Rules.

During the reporting period, the maximum daily deposit balance of the deposit services in this continuing related party (connected) transaction in 2021 was RMB6,000,000,000, and the actual maximum daily deposit balance was RMB3,940,930,600.

SECTION 6 KEY MATTERS

7. Provision of factoring services to the Group

The Company entered into the factoring cooperation framework agreement with Chinalco Commercial on 28 March 2019. The Group transferred the Account Receivables under the Underlying Transaction Contracts to Chinalco Commercial. Chinalco Commercial agreed to the transfer of the aforesaid Account Receivables and provides the Group with one or more factoring services including factoring facility, sales subsidiary ledger management, accounts receivable collection, credit investigation and evaluation, credit risk controls and bad debt guarantees. According to the anticipated conditions of business development, the Company planned to enter into a new factoring agreement with the factoring company to specify an annual cap on factoring facility limit and total amount of the expenses occurred of RMB1 billion for 2019 to 2021. The factoring service agreement has a term commencing on 18 June 2019 and ending on 31 December 2021. For further details of the transaction, please refer to the A-share special announcement “Announcement on Re-signing of the ‘Factoring Cooperation Framework Agreement’ and Daily Related Party Transactions” (《關於重新簽署〈保理合作框架協議〉暨日常關聯交易公告》) issued by the Company on 29 March 2019 and the H-share circular dated 27 May 2019.

Chinalco is the controlling Shareholder of the Company. Pursuant to the listing rules of the listing places, Chinalco and its subsidiaries are the v of the Company. Chinalco Commercial is the wholly-owned subsidiary of Chinalco Capital, the wholly-owned subsidiary of Chinalco, and thus the related parties (connected persons) of the Company. During the reporting period, the annual cap of this continuing related party (connected) transaction for 2021 was RMB1,000 million and the actual transaction amount was RMB140 million.

8. Provision of financial services such as financial leasing to the Group

The Company entered into the finance leasing cooperation framework agreement with Chinalco Finance Lease on 30 October 2019, pursuant to which, Chinalco Finance Lease will provide the Group with financial services such as finance leasing. According to the agreement, the services provided by Chinalco Finance Lease to the Group include the provision of leasing services, investment and financing consulting services, and accounts receivable management services to the Group. The agreement is valid for three years from the date when the ordinary resolution on the entering into of the finance leasing cooperation framework agreement at the general meeting on 30 December 2019 was passed and signed by the parties. During the effective period of the agreement, Chinalco Finance Lease and the Group reached the intention of cooperation with a scale of RMB1 billion. Such facility was a revolving facility, that is, at any point in the effective period of the finance leasing cooperation framework agreement, the balance of finance leasing and other financial services (including leasing business, investment and financing consulting services and accounts receivable management) obtained by the Group from Chinalco Finance Lease was no more than RMB1 billion. For further details of the transaction, please refer to the A-share special announcement “Announcement on Signing of the ‘Framework Cooperation Agreement’ with Chinalco Finance Lease Co., Ltd. and Daily Related Party Transactions” (《關於與中鋁融資租賃有限公司簽署〈框架合作協議〉暨日常關聯交易公告》) issued by the Company on 31 October 2019 and the H-share circular dated 13 December 2019.

SECTION 6 KEY MATTERS

Chinalco is the controlling Shareholder of the Company. Pursuant to the listing rules of the listing places, Chinalco and its subsidiaries are the related parties (connected persons) of the Company. Chinalco Finance Lease is a subsidiary of Chinalco Capital Holdings Limited, a subsidiary of Chinalco, and thus the related parties (connected persons) of the Company. During the reporting period, the annual cap of this continuing related party (connected) transaction for 2021 was RMB1,000 million and the actual transaction amount was RMB0.

The independent non-executive directors of the Company had reviewed each of the above continuing related party (connected) transactions and confirmed the transactions were:

- (1) conducted in the normal course of business of the Group;
- (2) conducted on normal commercial terms; if the comparable transactions could not be relied on to judge whether the terms of these transactions were normal commercial terms, those terms should not be less favorable than the terms accepted or provided by independent third parties so far as the Group was concerned; and
- (3) conducted in accordance with the terms of agreement related to relevant transactions and the terms were fair and reasonable and in the interests of Shareholders of the Company as a whole.

For the above related party (connected) transactions, the Directors also confirmed that the Company had complied with the disclosure requirements of the SSE Listing Rules and Chapter 14A of the HKEX Listing Rules.

(II) Connected transactions related to daily operations

1. Events disclosed in temporary announcements and without subsequent development or change in implementation

☒ Applicable ☐ Not applicable

SECTION 6 KEY MATTERS

Events overview

On 29 March 2021, the Company held the 38th meeting of the 3rd Board of Directors, which passed the motion to sign the Financial Services Agreement with Chinalco Finance and adjust the upper limit of relevant connected transactions. Such Financial Services Agreement expired on 31 December 2021, and on 29 March 2021, the Company signed a new financial services agreement with Chinalco Finance, for the purpose of deposit service, settlement service, credit service, factoring service and other financial services. The new financial services agreement redefines the provision of foregoing financial services from Chinalco Finance to this Company and its subsidiaries, specifies the pricing policies, updates the annual transaction caps from 2021 to 2023, and clarifies the effective period of 3 years from the date of approval at annual general meeting. The new financial services agreement supersedes the old one. This motion has been recognized by independent non-executive directors of the Company; when the Board of Directors was considering this motion, the independent non-executive directors of the Company expressed independent opinions agreeing on such motion. Said motion was passed at the 2020 annual general meeting of the Company.

Reference

For details, please refer to the announcements published on the website of SSE (www.sse.com.cn) on 30 March and 26 June 2021 respectively, and those published on the website of HKEX (www.hkex.com.hk) on 29 March, 3 June and 25 June 2021 respectively.

SECTION 6 KEY MATTERS

Events overview

On 29 March 2021, the Company held the 38th meeting of the 3rd Board of Directors, which passed the motion for Shandong Engineering (a subsidiary controlled by the Company) to provide joint and separate liability guarantee in the amount of RMB100 million for Wancheng to apply for continuing RMB100 million credit line with financial institutions, and meanwhile, Wancheng should provide to Shandong Engineering the guarantee in equivalent amount and term. Such motion is recognized by the independent non-executive directors of the Company; when the Board of Directors was considering this motion, the independent non-executive directors of the Company expressed independent opinions agreeing on such motion. Said motion was passed at the 2nd extraordinary general meeting of the Company for the year 2021.

On 27 October 2021, the Company held the 41st meeting of the 3rd Board of Directors, which passed the Motion to Update the Factoring Cooperation Framework Agreement, that is, the Company intended to sign a new factoring cooperation framework agreement with Chinalco Commercial Factoring Co., Ltd. (中鋁商業保理有限公司), under which, the annual transaction cap and 2022-2024 yearly aggregate costs between the parties should be maintained at RMB1 billion. The independent non-executive directors of the Company have issued the before-event affirmative opinions on such event, and issued the independent opinions. The foregoing motion was passed at the 2020 annual general meeting of the Company.

Reference

For details, please refer to the announcements published on the website of SSE (www.sse.com.cn) on 30 March and 26 June 2021 respectively, and those published on the website of HKEX (www.hkex.com.hk) on 29 March, 3 June and 25 June 2021 respectively.

For details, please refer to the announcements published on the website of SSE (www.sse.com.cn) on 28 October and 31 December 2021 respectively, and those published on the website of HKEX (www.hkex.com.hk) on 28 October, 13 December and 31 December 2021 respectively.

SECTION 6 KEY MATTERS

2. Events disclosed in temporary announcements but with subsequent development or change in implementation

☐Applicable ☒Not applicable

3. Events not disclosed in temporary announcements

☐Applicable ☒Not applicable

(III) Connected transactions from acquisition and disposal of assets or equity interests

1. Events disclosed in temporary announcements and without subsequent development or change in implementation

☐Applicable ☒Not applicable

2. Events disclosed in temporary announcements but with subsequent development or change in implementation

☐Applicable ☒Not applicable

3. Events not disclosed in temporary announcements

☐Applicable ☒Not applicable

4. In case of any guaranteed performance, whether the performance is achieved for the reporting period shall be disclosed

☐Applicable ☒Not applicable

(IV) Significant related party transactions in joint external investments

1. Events disclosed in temporary announcements and without subsequent development or change in implementation

☐Applicable ☒Not applicable

2. Events disclosed in temporary announcements but with subsequent development or change in implementation

☐Applicable ☒Not applicable

3. Events not disclosed in temporary announcements

☐Applicable ☒Not applicable

SECTION 6 KEY MATTERS

(VI) Financial business between the Company and the connected financial company, between the holding financial company and the related party✓Applicable ☐Not applicable**1. Deposit business**✓Applicable ☐Not applicable

(Expressed in RMB'0,000)

Related party	connection relation	Daily maximum deposit limit	deposit rate range	Opening Balance	Amount incurred during the period		Ending balance
					Total deposit amount for the period	Total withdrawal amount for the period	
Chinalco Finance Company Limited	Wholly owned subsidiary of parent company	6,000,000.00	0.525%-1.495%	274,702.61	119,390.45		394,093.06
Total	/	/	/	274,702.61	119,390.45		394,093.06

2. Loan business✓Applicable ☐Not applicable

(Expressed in RMB'0,000)

Related party	connection relation	loan amount	Loan Interest Rate Range	Opening Balance	Amount incurred during the period		Ending balance
					Total loan amount for the period	Total repayment amount for the period	
Chinalco Finance Company Limited	Wholly owned subsidiary of parent company	800,000.00	3.48%-4.35%	127,500.00	368,600.00	100,000.00	396,100.00
Chinalco Commercial Factoring (Tianjin) Co., Ltd. (中鋁商業 保理(天津)有限 公司)	Wholly owned subsidiary of parent company	100,000.00	4.5%-6%	14,000.00			14,000.00
Total	/	/	/	141,500.00	368,600.00	100,000.00	410,100.00

SECTION 6 KEY MATTERS

3. Credit business or other financial business

☒Applicable ☐Not applicable

(Expressed in RMB'0,000)

Related party	Connection relation	Business Type	Total	Actual Amount Incurred
Chinalco Finance Company Limited	Wholly owned subsidiary of parent company	Factoring business	200,000.00	0
Chinalco Financial Leasing Co., Ltd.	Wholly owned subsidiary of parent company	Financial leasing	100,000.00	0

4. Other notes

☐Applicable ☒Not applicable

(VII) Other

☐Applicable ☒Not applicable

XIII. MATERIAL CONTRACTS AND THEIR PERFORMANCE

(I) Custody, contracting and leasing matters

1. Custody

☐Applicable ☒Not applicable

2. Contracting

☐Applicable ☒Not applicable

3. Leasing

☐Applicable ☒Not applicable

SECTION 6 KEY MATTERS

(II) Guarantees

✓Applicable □Not applicable

(Expressed in RMB'0,000)

External guarantees (other than to subsidiaries)													
Guarantor	Relation between guarantor and listed company	The guaranteed party	Guaranteed amount	Date of guarantee (date of signing)	Guarantee starting date	Guarantee ending date	Type of guarantee	Collateral (if any)	Guarantee performed or not	Overdue or not	Overdue amount	Counter guarantee	Whether guarantee for related party or Connection
Ninth Metallurgical Construction Co., Ltd. Hanzhong Branch (漢中九冶建設有限公司)	Controlled subsidiary	Mian County Urban and Rural Infrastructure Construction Co., Ltd. (勉縣城鄉基礎設施建設有限公司)	5,450	2015/10/20	2015/10/20	2027/10/19	General guarantee		No	No	0	Yes	No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd. (雲南寧永高速公路有限公司)	25,716	2019/12/18	2019/12/30	2047/10/30	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	21,430	2019/12/18	2020/3/31	2047/10/30	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	21,430	2019/12/18	2019/10/31	2047/10/30	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	30,002	2019/12/18	2019/10/31	2047/10/30	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	42,860	2020/7/2	2020/9/28	2045/9/27	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	33,559	2020/7/2	2021/1/23	2046/1/22	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	42,860	2020/7/2	2021/3/22	2046/3/21	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	51,432	2020/7/2	2021/8/27	2046/8/26	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	21,430	2021/3/18	2021/2/23	2046/2/22	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	30,002	2021/9/16	2021/9/16	2046/9/15	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	12,858	2021/3/18	2021/4/20	2049/4/19	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	8,572	2021/3/18	2021/9/26	2049/9/25	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Ningyong Expressway Co., Ltd.	19,158	2021/12/28	2022/1/6	2049/1/5	General guarantee		No	No	0		No
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd. (雲南臨雲高速公路有限公司)	8,572	2019/12/18	2020/6/18	2047/10/30	General guarantee		No	No	0		No

SECTION 6 KEY MATTERS

External guarantees (other than to subsidiaries)													Whether guarantee for related party or Connection	
Guarantor	Relation between guarantor and listed company	The guaranteed party	Guaranteed amount	Date of guarantee (date of signing)	Guarantee starting date	Guarantee ending date	Type of guarantee	Collateral (if any)	Guarantee performed or not	Overdue or not	Overdue amount	Counter guarantee	party or not	Connection
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	34,288	2019/12/18	2019/10/31	2047/10/30	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	17,144	2019/12/18	2020/8/27	2048/8/26	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	4,286	2020/9/28	2020/9/28	2048/9/27	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	25,716	2020/11/26	2021/1/4	2048/1/3	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	8,572	2020/9/28	2020/10/20	2048/10/19	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	21,430	2021/12/20	2021/12/20	2048/12/19	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	4,286	2020/9/28	2020/9/28	2043/9/27	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	17,144	2020/12/21	2020/12/21	2043/12/20	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	42,860	2020/12/29	2021/5/28	2046/5/27	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linyun Expressway Co., Ltd.	42,860	2021/12/1	2021/12/17	2046/12/16	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd. (雲南臨雙高速公路有限公司)	9,429.2	2020/5/6	2018/1/23	2047/10/30	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	8,572	2020/5/6	2018/3/23	2047/10/30	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	8,572	2020/5/6	2019/2/14	2047/10/30	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	2,143	2020/5/6	2019/5/23	2047/10/30	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	10,715	2020/5/6	2019/9/5	2047/10/30	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	17,144	2020/5/6	2019/11/7	2047/10/30	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	12,858	2020/5/6	2020/1/7	2047/10/30	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	4,286	2020/10/12	2020/11/4	2042/11/3	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	21,430	2020/12/22	2021/7/24	2044/7/23	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	2,143	2020/10/12	2021/3/11	2044/3/10	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	42,860	2020/12/30	2021/4/15	2046/4/14	General guarantee		No	No	0		No	
Challeco	Headquarters	Yunnan Linshuang Expressway Co., Ltd.	42,860	2021/12/1	2021/12/30	2025/12/29	General guarantee		No	No	0		No	

SECTION 6 KEY MATTERS

External guarantees (other than to subsidiaries)													Whether guarantee for related party or Connection	
Guarantor	Relation between guarantor and listed company	The guaranteed party	Guaranteed amount	Date of guarantee (date of signing)	Guarantee starting date	Guarantee ending date	Type of guarantee	Collateral (if any)	Guarantee performed or not	Overdue or not	Overdue amount	Counter guarantee	party or not	Connection
Total amount of guarantees incurred during the reporting period (excluding guarantees to subsidiaries)														425,042.00
Total guarantee balance at the end of the reporting period (A) (excluding guarantees to subsidiaries)														829,089.6
Guarantees by the Company and its subsidiaries to subsidiaries														
Total amount of guarantees to subsidiaries during the reporting period														57,300
Total balance of guarantees to subsidiaries at the end of the reporting period (B)														404,000
The total amount of guarantees provided by the company (including guarantees to subsidiaries)														
Total amount of guarantees (A+B)														1,233,089.60
The ratio of total guarantees to the company's net assets (%)														161.46
Including:														
Amount of guarantee provided for shareholders, beneficiary owners and their related parties (C)														0
The amount of debt guarantee provided directly or indirectly for the guaranteed entity whose asset-liability ratio exceeds 70% (D)														73,600.00
The amount of the total guarantee exceeding 50% of the net assets (E)														1,159,489.6
Sum of above 3 guarantee amounts (C+D+E)														1,233,089.6
Unexpired guarantee may bear joint and several liability for repayment														Nil
Description of guarantees														

(III) Particulars of cash under discretionary management

1. Wealth under discretionary management

(1) Overview of wealth under discretionary management

☐Applicable ☒Not applicable

Other information

☐Applicable ☒Not applicable

(2) Details of single case of wealth under discretionary management

☐Applicable ☒Not applicable

Other information

☐Applicable ☒Not applicable

(3) Provision for impairment of wealth under discretionary management

☐Applicable ☒Not applicable

SECTION 6 KEY MATTERS

2. Particulars of entrusted loans

(1) Overview of entrusted loans

☐Applicable ☒Not applicable

Other information

☐Applicable ☒Not applicable

(2) Details of single case of entrusted loans

☐Applicable ☒Not applicable

Other information

☐Applicable ☒Not applicable

(3) Provision for impairment of entrusted loans

☐Applicable ☒Not applicable

3. Other information

☐Applicable ☒Not applicable

(IV) Other material contracts

☐Applicable ☒Not applicable

XIV. EXPLANATIONS OF OTHER KEY MATTERS THAT HAVE A SIGNIFICANT IMPACT ON INVESTORS' VALUE JUDGMENTS AND INVESTMENT DECISIONS

☐Applicable ☒Not applicable

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

I. CHANGES IN ORDINARY SHARE CAPITAL

(I) Changes in shares

1. Table of changes in shares

There was no change in the total number of shares and the structure of share capital of the Company during the reporting period.

2. Explanation of changes in shares

☐ Applicable ☒ Not applicable

3. Impact (if any) of changes in shares on EPS, net assets per share and other financial indicators for the latest year and the latest period

☐ Applicable ☒ Not applicable

4. Other information disclosure which the Company deems necessary or is required by the securities regulatory authority

☐ Applicable ☒ Not applicable

(II) Particulars of changes in restricted shares

☒ Applicable ☐ Not applicable

(Shares)

Shareholder's name	Number of restricted shares at the beginning of year	Number of shares lifted this year	The number of restricted shares increased this year	Number of restricted shares at the end of the year	Reasons for restrictions	Date of lifting
Chinalco	2,176,758,534	2,176,758,534	0	0	Commitment at the time of the IPO	2021.8.31
Luoyang Institute	86,925,466	86,925,466	0	0	Commitment at the time of the IPO	2021.8.31
Total	2,263,684,000	2,263,684,000	0	0	/	/

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

II. SECURITIES OFFERING AND LISTING

(I) Securities issuing during the reporting period

☐ Applicable ☒ Not applicable

Particulars of securities issuing during the reporting period (outstanding bonds with different interest rate requires separate explanation):

☐ Applicable ☒ Not applicable

(II) Changes in total number of shares and shareholding structure of the Company and changes in assets and liabilities structure of the Company

☐ Applicable ☒ Not applicable

(III) Existing internal employee shares

☐ Applicable ☒ Not applicable

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

III. PARTICULARS OF SHAREHOLDERS AND BENEFICIARY OWNER

(I) Shareholding structure and public float

1. Shareholding structure

As of 31 December 2021, the Company had a total share capital of 2,959,066,667 shares, divided into 2,959,066,667 shares (including 399,476,000 H shares and 2,559,590,667 A shares) at the nominal value of RMB1.00 per share.

2. Public float

Based on information publicly available to the Company and so far as the Directors are aware, the issued A Shares and H Shares of the Company held by the public as at the Latest Practicable Date prior to the publication of this annual report was in compliance with the requirements under the HKEX Listing Rules.

(II) Total number of shareholders

Total number of ordinary shareholders by the end of reporting period	72,646
Total number of ordinary shareholders at end of the last month immediately preceding the disclosure date of the Annual Report	72,258
Total number of shareholders of preferred shares with voting right reinstated by the end of reporting period	N/A
Total number of shareholders of preferred shares with voting right reinstated at end of the last month immediately preceding the disclosure date of the Annual Report	N/A

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

(III) Table of shareholding by top 10 shareholders and top 10 holders of circulating shares (or unrestricted shareholders) as of the end of the reporting period

(Shares)

Shareholder's name (full name)	Changes in reporting period	Shareholding of top 10 shareholders			Pledged, marked or frozen shares			Nature of shareholder
		Number of shares held at end of the year	%	Number of restricted shares held	Status of shares	Number		
Chinalco	0.00	2,176,758,534.00	73.56%	2,176,758,534.00	Nil	0	State-owned legal person	
Hong Kong Securities Clearing Company Nominees Limited	0.00	399,476,000	13.50%	0	Unknown	/	Other	
Luoyang Institute	0.00	86,925,466.00	2.94%	86,925,466.00	Nil	0	State-owned legal person	
Hong Kong Securities Clearing Company Limited	-5,406,068.00	5,753,022.00	0.19%	0	Nil	0	Other	
Bank of Communications Co., Ltd. – GF CSI Engineering Trading Open Index Securities Investment Fund (交通銀行股份 有限公司－廣發中證基建工程交 易型開放式指數證券投資基金)	2,929,400.00	2,929,400.00	0.10%	0	Nil	0	Other	
Mr. GU Jing	3,700.00	2,567,000.00	0.09%	0	Nil	0	Domestic natural person	
Vanguard Investment Australia Ltd – Vanguard Emerging Markets Stock Index Fund (Exchange)	0.00	1,830,300.00	0.06%	0	Nil	0	Other	
Mr. XIE Kunlin	1,602,300.00	1,602,300.00	0.05%	0	Nil	0	Domestic natural person	
Mr. ZHAO Changyun	1,600,000.00	1,600,000.00	0.05%	0	Nil	0	Domestic natural person	
China International Capital Corporation Hong Kong Asset Management Limited – Client Funds 2 (中國國際金融香港資產 管理有限公司－客戶資金2)	1,406,800.00	1,406,800.00	0.05%	0	Nil	0	Other	

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

Shareholding of top 10 shareholders not subject to selling restrictions

Shareholder's name	Number of shares held in circulation not subject to selling restrictions	Class and number of shares	
		Class	Number
Chinalco	2,176,758,534.00	Renminbi ordinary shares	2,176,758,534.00
Hong Kong Securities Clearing Company Nominees Limited	399,476,000	Overseas listed foreign shares	399,476,000
Luoyang Institute	86,925,466.00	Renminbi ordinary shares	86,925,466.00
Hong Kong Securities Clearing Company Limited	5,753,022.00	Renminbi ordinary shares	5,753,022.00
Bank of Communications Co., Ltd. – GF CSI Engineering Trading Open Index Securities Investment Fund	2,929,400.00	Renminbi ordinary shares	2,929,400.00
Mr. GU Jing	2,567,000.00	Renminbi ordinary shares	2,567,000.00
Vanguard Investment Australia Ltd – Vanguard Emerging Markets Stock Index Fund (Exchange)	1,830,300.00	Renminbi ordinary shares	1,830,300.00
Mr. XIE Kunlin	1,602,300.00	Renminbi ordinary shares	1,602,300.00
Mr. ZHAO Changyun	1,600,000.00	Renminbi ordinary shares	1,600,000.00
China International Capital Corporation Hong Kong Asset Management Limited – Client Funds 2	1,406,800.00	Renminbi ordinary shares	1,406,800.00
Explanation of the special account for repurchase among the top 10 shareholders	N/A		
Explanation on the above-mentioned shareholders' entrusted voting rights, entrusted voting rights and abstention from voting rights	N/A		

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

Shareholding of top 10 shareholders not subject to selling restrictions

Shareholder's name	Number of shares held in circulation not subject to selling restrictions	Class and number of shares	
		Class	Number
Explanation of connection and concerted action in respect of the above shareholders	Note 1: The number of shares held by Chinalco did not include A shares of the Company indirectly held through its subsidiary Luoyang Institute and H shares of the Company indirectly held through its subsidiary Yunnan Aluminum International Company Limited (雲鋁國際有限公司). Chinalco and its subsidiaries held a total of 2,283,179,000 shares of the Company, including 2,263,684,000 A shares and 19,495,000 H shares, accounting for 77.16% of the total share capital of the Company. Note 2: The 19,495,000 H shares of the Company held by Chinalco's subsidiary Yunnan Aluminum International Company Limited (雲鋁國際有限公司) were held by Hong Kong Securities Clearing Company Nominees Limited on its behalf. Note 3: The 399,476,000 H shares of the Company held by Hong Kong Securities Clearing Company Nominees Limited included the 19,495,000 H shares held by Chinalco's subsidiary Yunnan Aluminum International Company Limited (雲鋁國際有限公司). Note 4: Except for the above, the Company is not aware that the above shareholders have any connection or concerted action among each other.		
Explanation of shareholders of preferred shares with reinstated voting rights and the number of shares held	N/A		

Number of shares held by top ten restricted shareholders and restriction conditions

☐ Applicable ☒ Not applicable

(IV) Strategic investors or general legal persons who become top 10 shareholders due to rights issue

☐ Applicable ☒ Not applicable

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

(V) Interests and short positions of substantial shareholders in shares and underlying shares

As at 31 December 2021, so far as known to the directors of the Company, the following persons (other than the directors and senior management of the Company) had interests or short positions in the Shares and underlying Shares of the Company which would fall to be disclosed to the Company pursuant to Divisions 2 and 3 of Part XV of the SFO; or have the records of interests register to be kept under Section 336 of the SFO, or are deemed to carry the right to directly and or indirectly 5% or more in the nominal value of any class of share capital being voted at the general meeting of the Company in any circumstance:

Shareholder's name	Class	Capacity	Number of shares/ underlying shares held	Percentage of shareholding in relevant class of capital, % (Note 1)	Percentage in total share capital, %
Chinalco (Note 2)	A shares	Beneficial owner/ Controlled entity interests	2,263,684,000 (long position)	88.44	76.5
The Seventh Metallurgical Construction Group Co., Ltd. (七冶建設有限責任公司)	H shares	Beneficial owner	69,096,000 (long position)	17.3	2.34
CNMC Trade Company Limited	H shares	Beneficial owner	59,225,000 (long position)	14.83	2
Peaktrade Investments Ltd.	H shares	Beneficial owner	59,210,000 (long position)	14.82	2
China XD Group (中國西電集團公司)	H shares	Beneficial owner	29,612,000 (long position)	7.41	1
Yunnan Tin (Hong Kong) Yuan Xin Company Limited (雲錫(香港)源興有限公司)	H shares	Beneficial owner	29,612,000 (long position)	7.41	1
Leading Gain Investments Limited (Note 3)	H shares	Another person's nominee (other than passive trustee)	29,612,000 (long position)	7.41	1

Note 1. The percentage is calculated by dividing number of relevant class of Shares in issue of the Company as at 31 December 2021 by total number of Shares.

Note 2. Chinalco is beneficially interested in 2,263,684,000 A Shares, representing approximately 76.50% of the total share capital of the Company. Luoyang Institute is a wholly-owned subsidiary of Chinalco and is interested in 86,925,466 A Shares, representing approximately 2.94% of the total share capital of the Company. Chinalco is therefore also deemed to be interested in the A Shares held by Luoyang Institute under the SFO.

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

IV. PARTICULARS OF CONTROLLING SHAREHOLDER AND BENEFICIAL OWNER

(I) Controlling shareholder

1 Legal person

☒ Applicable ☐ Not applicable

Name	Chinalco
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Principal or the legal representative	Mr. YAO Lin
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Date of establishment	21 February 2001
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Principal businesses	Bauxite mining (limited to the mining of the Maochang bauxite mine of Chalco, which is valid until 30 December 2038); dispatching laborers required for foreign engineering projects that are commensurate with its strength, scale and performance. Operation and management of state-owned assets and state-owned equity; production and sales of aluminum, copper, rare rare earth and related non-ferrous metal mineral products, smelted products, processed products, and carbon products; survey and design, general contracting of engineering construction, construction and installation; equipment manufacturing; technology development, technical services; import and export business. (Enterprises shall independently choose business projects and carry out business activities in accordance with the laws; the projects subject to approval at laws shall be carried out with approval by relevant authorities; it's not allowed to operate the projects prohibited and restricted by local industrial policies.)
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SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

Name	Chinalco
During the reporting period, the equity of other domestic and overseas listed companies controlled and participated by the company	As of 31 December 2021, in addition to the Company, other domestic and overseas listed companies controlled and participated by Chinalco included: 1. Chinalco directly held 29.67% shares of Chalco (a company listed on the SSE (stock code: 601600), the HKEX (stock code: 02600), and the NYSE (stock code: ACH). Chinalco indirectly holds 40.23% shares of Ningxia Yinxing Energy Co., Ltd. (寧夏銀星能源股份有限公司) (a company listed on the SZSE, stock code: 000862) through Chinalco Ningxia Energy Group Co., Ltd. (中鋁寧夏能源集團有限公司), a subsidiary of Chinalco. 2. Chinalco indirectly held 37.51% shares of Yunnan Copper Co., Ltd. (雲南銅業股份有限公司) (a company listed on the SZSE, stock code: 000878) through its subsidiary, Yunnan Copper (Group) Co., Ltd. (雲南銅業(集團)有限公司) 3. Chinalco indirectly held 32.00% shares and 10.10% shares of Yunnan Aluminum Co., Ltd. (雲南鋁業股份有限公司) (a company listed on the SZSE, stock code: 000807) through its subsidiaries Yunnan Metallurgical Group Co., Ltd. (雲南冶金集團股份有限公司) and Chinalco, respectively. 4. Chinalco indirectly held 38.19% shares of Yunnan Chihong Zinc and Germanium Co., Ltd. (雲南馳宏鋅銻股份有限公司) (a company listed on the SSE, stock code: 600497) through its subsidiary, Yunnan Metallurgical Group Co., Ltd. (雲南冶金集團股份有限公司)
Explanation of other situation	Nil
2 Natural person	
☐ Applicable ☒ Not applicable	
3 Special explanation in case the Company does not have a controlling shareholder	
☐ Applicable ☒ Not applicable	

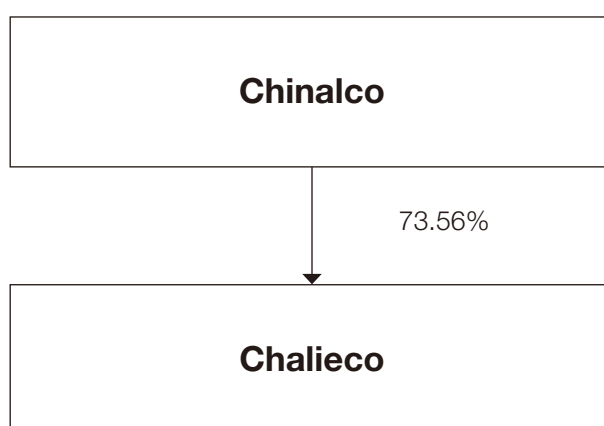
SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

4 Explanation on the change of controlling shareholder during the reporting period

☐ Applicable ☒ Not applicable

5 Chart of property rights and shareholding structure between the Company and its controlling shareholder

☒ Applicable ☐ Not applicable



(II) Beneficiary owner

1 Legal person

☒ Applicable ☐ Not applicable

The Company's beneficiary owner is the State-owned Assets Supervision and Administration Commission of the State Council (國務院國有資產監督管理委員會).

2 Natural person

☐ Applicable ☒ Not applicable

3 Special explanation in case the Company does not have a beneficiary owner

☐ Applicable ☒ Not applicable

4 Explanation of change of beneficiary owner during the reporting period

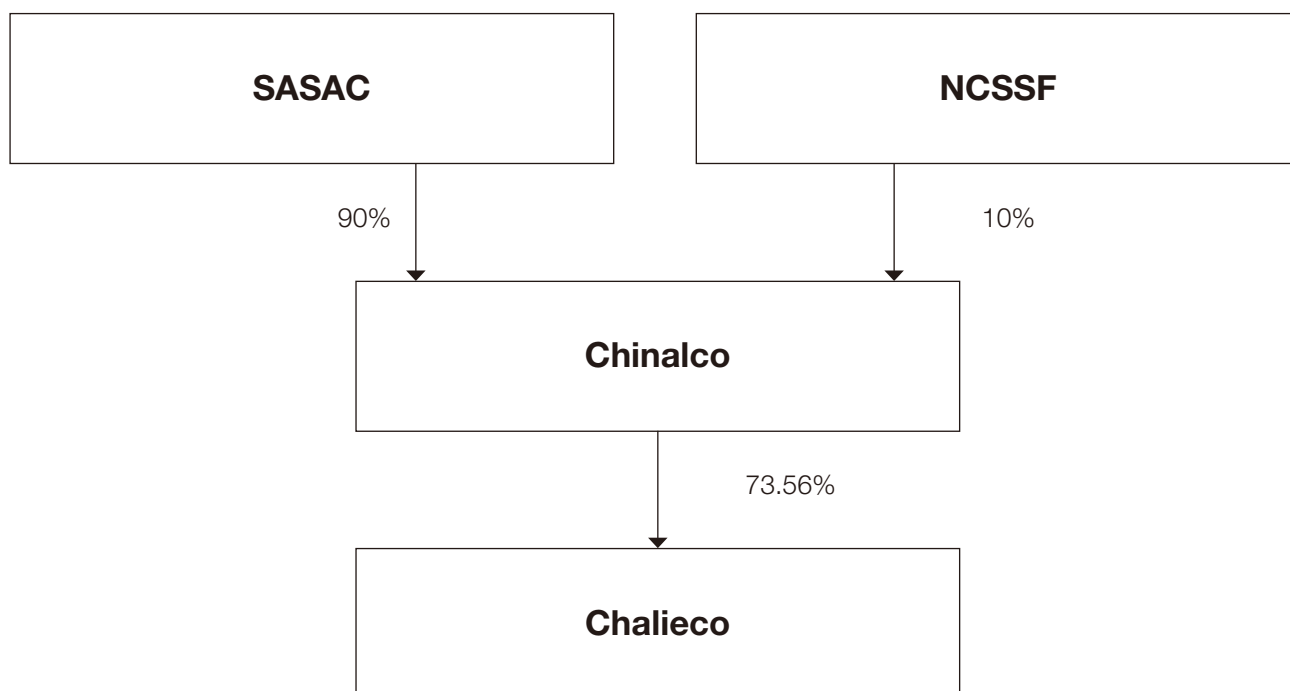
☐ Applicable ☒ Not applicable



SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS

5 Chart of property rights and shareholding structure between the Company and its beneficiary owner

☒ Applicable ☐ Not applicable



6 Beneficiary owner's control over the Company through trust or other asset management means

☐ Applicable ☒ Not applicable

(III) Other information on controlling shareholder and beneficiary owner

☐ Applicable ☒ Not applicable

SECTION 7 CHANGES IN ORDINARY SHARES AND SHAREHOLDERS**V. THE CONTROLLING SHAREHOLDER OR THE LARGEST SHAREHOLDER OF THE COMPANY AND ITS PERSONS ACTING IN CONCERT HAVE ACCUMULATIVELY PLEDGED SHARES THAT ACCOUNT FOR MORE THAN 80% OF THE COMPANY'S SHARES HELD BY THEM**

☐ Applicable ☒ Not applicable

VI. OTHER LEGAL PERSON SHAREHOLDERS HOLDING MORE THAN 10% OF THE SHARES

☐ Applicable ☒ Not applicable

VII. DESCRIPTION ON RESTRICTIONS ON REDUCING SHAREHOLDING

☐ Applicable ☒ Not applicable

VIII. SPECIFIC IMPLEMENTATION OF SHARE REPURCHASE DURING THE REPORTING PERIOD

☐ Applicable ☒ Not applicable

IX. PREEMPTIVE RIGHT, SHARE OPTION ARRANGEMENT

The Company is not required to offer the preemptive right on new shares to existing shareholders of the Company in proportion to their shareholding percentages, under the Articles of Association or the PRC laws.



SECTION 8 PARTICULARS OF PREFERRED SHARES

☐ Applicable ☒ Not applicable

SECTION 9 PARTICULARS OF BONDS

I. DEBENTURES, CORPORATE BONDS AND NON-FINANCIAL CORPORATE DEBT FINANCING INSTRUMENTS

☒ Applicable ☐ Not applicable

(I) Debentures

☐ Applicable ☒ Not applicable

(II) Corporate bonds

☒ Applicable ☐ Not applicable

1. Basic information of the corporate bonds

(Expressed in RMB)

Bond name	Abbreviation	Code	Date of issuance	Value date	Maturity date	Balance	Rate, %	Repayment terms	Trading place	Investor suitability arrangements (if any)	Trading mechanism	Whether there is a risk of de-listing?
2019 Yearly Renewable Corporate Bonds	19 ZG Y1	155867	2019/10/30	2019/10/30	3 years +N	1,500,000,000	5.29	If the issuer does not exercise the right to defer interest payment, the interest will be paid annually	SSE		Exchange trading	No

Countermeasures for the risk of bonds de-listing

☐ Applicable ☒ Not applicable

Overdue bonds

☐ Applicable ☒ Not applicable

SECTION 9 PARTICULARS OF BONDS

Information on payment of principal of and interest on bonds during the reporting period

☒ Applicable ☐ Not applicable

Bond name	Description of interest payment
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19 ZG Y1	On 30 October 2021, the Company has completed the second year interest payment.
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2. Triggering and enforcement of issuer or investor option provisions, investor protection provisions

☐ Applicable ☒ Not applicable

3. Intermediaries providing services for bond issuance and duration business

Name of intermediary	Office address	Signature accountant name	Contact	Telephone
WUYIGE Certified Public Accountants LLP	15th Floor, College International Building, No. 1 Zhichun Road, Haidian District, Beijing	Shi Chenqi (石晨起)	Shi Chenqi (石晨起)	010-82239251

Changes in the above-mentioned intermediaries

☐ Applicable ☒ Not applicable

4. Use of proceeds from offerings at the end of the reporting period

☒ Applicable ☐ Not applicable

(Expressed in RMB)

Bond name	Total amount of proceeds	Amount used	Amount unused	Operational status of the proceeds special account (if any)	Rectification of non-compliant use of proceeds (if any)	Whether consistent with the purpose, use plan and other agreements contained in the Prospectus?
19 ZG Y1	1,500,000,000.00	1,500,000,000.00	0	Nil	Nil	Yes

Note: The proceeds from the offering of "19 ZG Y1" bonds were already used up for the purpose disclosed in the Prospectus at the end of 2020.

SECTION 9 PARTICULARS OF BONDS

The progress and operational benefits of proceeds used for construction projects

☐ Applicable ☒ Not applicable

Explanation of changes in the use of proceeds from foregoing bonds offering within the reporting period

☐ Applicable ☒ Not applicable

Other explanation

☐ Applicable ☒ Not applicable

5. Adjustment to credit rating results

☒ Applicable ☐ Not applicable

Bond name	Credit rater name	Rating	Prospective change	Reason for change of rating results
19 ZG Y1	United Credit Ratings Co., Ltd.	Bond issuer 2A+	From stable to negative	Loss in 2020

Other explanation

☐ Applicable ☒ Not applicable

6. Implementation and changes of guarantees, debt repayment plans and other debt repayment guarantee measures during the reporting period and their impact

☒ Applicable ☐ Not applicable

Status quo	Execution	Any change or not?	After change	Reason for change	Whether such change is approved by competent authorities?	The impact of the change on the rights and interests of bond investors
Chinalco provides guarantees	Normal	No				



SECTION 9 PARTICULARS OF BONDS

7. Explanation of other situations of corporate bonds

☐ Applicable ☒ Not applicable

(3) Debt financing instruments of non-financial enterprises in the inter-bank bond market

☐ Applicable ☒ Not applicable

(IV) The loss in the scope of the consolidated financial statements of the Company during the reporting period exceeded 10% of the net assets at the end of the previous year

☐ Applicable ☒ Not applicable

(V) Overdue interest-bearing debts other than bonds at the end of the reporting period

☐ Applicable ☒ Not applicable

(VI) The impact of violations of laws and regulations, the Articles of Association, information disclosure affairs management system and the stipulations or commitments in the Prospectus during the reporting period on the rights and interests of bond investors

☐ Applicable ☒ Not applicable

SECTION 9 PARTICULARS OF BONDS

(VII) Accounting data and financial indicators of the Company for the past 2 years as of the end of the reporting period

☒ Applicable ☐ Not applicable

(Expressed in RMB'0,000)

Major indicators	FY2021	FY2020	Change, %	Reason
	-102,839.42	-210,738.12	51.2	Net profit increase YoY
Current ratio	1.26	1.29	1.26	—
Quick ratio	1.18	1.18	—	—
Asset liability ratio (%)	71.93	71.30	up 0.63 percentage point	—
EBITDA to total debt ratio	0.003	N/A	—	—
Interest coverage ratio	N/A	N/A	—	—
Cash interest coverage ratio	13.44	11.46	13.44	—
EBITDA interest coverage multiple	0.14	N/A	—	—
Loan repayment rate (%)	100.00	100.00	—	—
Interest coverage ratio (%)	100.00	100.00	—	—

II. CONVERTIBLE CORPORATE BONDS

☐ Applicable ☒ Not applicable

SECTION 10 FINANCIAL REPORT



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Auditor's Report

DA XIN SHEN ZI [2022] No. 1-01615

To the Shareholders of China Aluminum International Engineering Corporation Limited,

I. OPINION

We have audited the accompanying financial statements of China Aluminum International Engineering Corporation Limited (hereinafter referred to as the "Company"), which comprise the consolidated and company statements of financial position as at 31 December 2021, and the consolidated and company statements of comprehensive income, the consolidated and company statements of cash flows and the consolidated and company statements of changes in shareholders' equity for 2021, and notes to the financial statements.

In our opinion, the accompanying financial statements, in all material respects, have been prepared in accordance with the requirements of Accounting Standards for Business Enterprises and give a true and fair view of the consolidated and company financial position as at 31 December 2021, and the consolidated and company financial performance and cash flows 2021.

II. BASIS FOR OPINION

We conducted our audit in accordance with the China Certified Public Accountants Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with China Code of Ethics for Certified Public Accountants (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code.

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

SECTION 10 FINANCIAL REPORT

III. KEY AUDIT MATTERS

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

(I) Revenue and cost recognition on construction contracts

1. Description of the matter

For accounting policies and disclosures related to the revenue and cost on construction contracts, refer to Notes “(26) Revenue” and “(35) Key assumptions and uncertainties in important judgments and accounting estimates made in applying accounting policies” under “3. Significant Accounting Policies and Accounting Estimates”, and (46) Operating Income and Operating Costs” under “5. Notes to Important Items in Consolidated Financial Statements”.

The revenue and profit of the Company mainly are deprived from the construction operations. In the Company’s consolidated statement of comprehensive income for 2021, the construction operations accounted for 82.32% of the operating income and 82.15% of the operating cost. The Company recognizes revenue and cost of such business over time by measuring the performance progress if it can be reasonably determined, which involves significant judgments, such as the continuous and reasonable estimation of the expected total contract revenue and total contract cost throughout the contract period. Therefore, we identify it as a key audit matter.

2. Audit response

Our audit procedures for revenue and cost recognition on construction contracts mainly include:

- (1) Understanding, assessing and testing the effectiveness of related key internal control design in relation to construction contracts during the reporting period;
- (2) Sampling construction projects and examining the relevant contract, cost budget, etc. which the expected total contract revenue and total contract cost are based on, to assess whether the estimation made by the management is reasonable and whether the basis is sufficient;

SECTION 10 FINANCIAL REPORT

- (3) Examining the contract costs incurred during the reporting period by tracing to external supporting documentation on a sampling basis;
- (4) Carrying out a cut-off test procedure to check whether related contract costs were recognized in the proper accounting period;
- (5) Analysing gross margin of major construction contracts;
- (6) Sampling construction projects to recalculate their performance progress and focus on the accuracy of accounting data recognized;
- (7) Visiting the selected sites of major construction projects, discussing with the project management department the extent to which the construction work was completed, comparing to the performance progress in record, and making a further examination for unusual deviations if necessary.

(II) Expected credit losses of receivables and contract assets and provision for impairment of inventories

1. Description of the matter

For relevant accounting policies and disclosures, refer to Notes “(11) Determination and accounting treatment of expected credit loss” and “(35) Key assumptions and uncertainties in important judgments and accounting estimates made in exercising accounting policies” under “3. Significant Accounting Policies and Accounting Estimates”, and “5. Notes to Important Items in Consolidated Financial Statements”.

The Company makes provision for bad debts for receivables and contract assets based on expected credit risks, which is measured at the lower of cost and net realizable value and recognizes the provision for impairment of inventories. As at 31 December 2021, the Company had the balance of accounts receivable of RMB18,252.8124 million, other receivables of RMB3,657.2435 million, inventories of RMB3,035.5241 million, contract assets of RMB8,250.7375 million, long-term receivables (including the portion presented in current portion of non-current assets) of RMB2,452.6051 million and long-term contract assets (presented in other non-current assets) of RMB741.7740 million, and the provision for bad debts were RMB2,951.4483 million, RMB1,304.8409 million, RMB518.2547 million, RMB680.6912 million, RMB373.4907 million and RMB4.8198 million respectively. The management continuously evaluated the expected credit losses on these assets based on relevant information available to it. Considering the assumptions and input values which the management used in impairment testing depend on significant judgment, we identify this as a key audit matter.

SECTION 10 FINANCIAL REPORT

2. Audit response

Our audit procedures for provision for bad debts of receivables and contract assets and recognition of provision for impairment of inventories mainly include:

- (1) Understanding, assessing and testing the effectiveness of related key internal control design in relation to the credit approval and expected credit losses testing and provision for impairment of inventories, and testing the operational effectiveness during the Reporting Period;
- (2) Reviewing relevant considerations and objective evidence which the management used in assessing expected credit risk of receivables and contract assets and provision for impairment of inventories, including determination of provision matrix and reasonable expected credit loss rate;
- (3) For receivables and contract assets individually assessed for expected credit losses, reviewing whether the management made appropriate estimation of expected future cash flows by tracing to supporting evidence, such as mortgage and security agreements, third party evaluation report on the pledged assets, the repayment plan;
- (4) Obtaining the relevant documents of the Company in connection with inventories impairment test, checking whether it is implemented in accordance with the Company's relevant accounting policies, and analyzing whether the provision for inventory impairment is sufficient;
- (5) Based on the contracts, settlement data and other information, review the relevant assets for which ECL is treated using a portfolio approach, and whether the age division and provision for bad debts are accurate.

IV. OTHER INFORMATION

The management of the Company (the "management") is responsible for the other information. The other information comprises all of the information included in the Company's annual report for 2021 other than the financial statements and our auditor's report thereon.

Our opinion on the 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 financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the 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.

SECTION 10 FINANCIAL REPORT

V. RESPONSIBILITIES OF THE MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENTS

The management of the Company is responsible for the preparation of the financial statements that give a true and fair view in accordance with Accounting Standards for Business Enterprises, and for such internal control as the management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the management is responsible for assessing the Company'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 management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

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

VI. AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the 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. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with Auditing Standards 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 financial statements.

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

- (1) Identify and assess the risks of material misstatement of the 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.
- (2) Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- (3) Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.

SECTION 10 FINANCIAL REPORT

- (4) Conclude on the appropriateness of the management's 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 Company'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 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 Company to cease to continue as a going concern.
- (5) Evaluate the overall presentation, structure and content of the financial statements, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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, related safeguard.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current year 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.

(This page is the signature and seal page of Auditor's Report (DA XIN SHEN ZI [2022] No. 1-01615) of China Aluminum International Engineering Corporation Limited)

WUYIGE Certified Public Accountants LLP.

China Certified Public Accountant:
(Engagement Partner)

Beijing • China

China Certified Public Accountant:

28 March 2022

SECTION 10 FINANCIAL REPORT

CONSOLIDATED BALANCE SHEET

As at 31 December 2021

Prepared by: China Aluminum International Engineering Corporation Limited

Unit: RMB

Item	Note	At 31 December 2021	At 31 December 2020
Current assets			
Monetary fund	5.1	7,516,796,359.25	7,281,251,123.33
Held-for-trading financial assets			
Derivative financial assets			
Notes receivable	5.2	8,232,891.32	8,005,940.92
Accounts receivable	5.3	15,284,893,471.78	16,311,690,918.31
Factoring of receivables	5.4	730,574,231.09	571,448,716.65
Prepayments	5.5	366,118,531.55	253,891,239.95
Other receivables	5.6	2,352,943,216.73	2,143,406,643.36
Including: Interest receivable		540,607.12	605,340.88
Dividends receivable			
Inventories	5.7	2,517,269,364.60	3,381,147,951.43
Contract assets	5.8	7,570,046,275.55	7,280,336,107.50
Held-for-sale assets			
Non-current assets due within 1 year	5.9	514,100,256.82	727,292,975.94
Other current assets	5.10	516,228,456.75	612,751,354.17
Total current assets		37,377,203,055.44	38,571,222,971.56
Non-current assets:			
Debt investments			
Other debt investments			
Long-term receivables	5.11	1,565,014,108.98	1,723,182,526.08
Long-term equity investments	5.12	739,610,025.01	841,309,919.27
Other equity instrument investments	5.13	41,449,494.75	41,563,578.70
Other non-current financial assets	5.14	18,900,000.00	18,900,000.00
Investment properties	5.15	543,798,566.08	502,746,006.61
Fixed assets	5.16	2,432,941,288.35	2,321,619,851.59
Construction in progress	5.17	171,343,709.16	324,078,307.65
Bearer biological assets			
Oil & gas assets			
Rights-of-use assets	5.18	7,378,033.93	12,500,713.75
Intangible assets	5.19	1,220,602,280.72	1,162,275,767.68
Development costs	5.20		2,013,685.27
Goodwill			
Long-term unamortized expenses	5.21	52,252,872.99	49,581,803.38
Deferred income tax assets	5.22	964,632,752.27	907,077,367.85
Other non-current assets	5.23	13,692,909,128.57	8,010,773,376.11
Total non-current assets		21,450,832,260.81	15,917,622,903.94
Total assets		58,828,035,316.25	54,488,845,875.50

SECTION 10 FINANCIAL REPORT

Item	Note	At 31 December 2021	At 31 December 2020
Current liabilities			
Short-term borrowings	5.24	5,550,885,676.25	6,077,945,577.91
Held-for-trading financial liabilities			
Derivative financial liabilities	5.25		19,100,700.00
Notes payable	5.26	2,782,450,852.44	1,746,596,180.34
Accounts payable	5.27	13,074,544,235.13	13,764,437,425.31
Prepayments			
Contract liabilities	5.28	3,254,573,368.09	2,661,209,779.65
Employee benefits payable	5.29	184,661,619.58	193,443,242.45
Taxes payable	5.30	264,172,247.44	242,721,799.68
Other payables	5.31	2,394,199,444.91	2,229,483,821.61
Including: Interest payable			
Dividends payable			
Held-for-sale liabilities			
Non-current liabilities due within 1 year	5.32	509,820,434.90	477,050,790.01
Other current liabilities	5.33	1,626,338,830.07	2,517,483,960.57
Total current liabilities		29,641,646,708.81	29,929,473,277.53
Non-current liabilities:			
Long-term borrowings	5.34	12,022,204,583.61	8,228,705,995.96
Debentures payable			
Including: Preferred stock			
Perpetual bonds			
Lease liabilities	5.35	3,337,548.63	4,525,650.30
Long-term payables	5.36	1,761,720.17	2,602,600.17
Long-term employee benefits payable	5.37	514,291,150.00	551,884,000.00
Estimated liabilities			
Deferred income	5.38	56,000,000.00	60,056,033.34
Deferred income tax liabilities	5.22	73,611,585.93	74,685,634.94
Other non-current liabilities			
Total non-current liabilities		12,671,206,588.34	8,922,459,914.71
Total liabilities		42,312,853,297.15	38,851,933,192.24



SECTION 10 FINANCIAL REPORT

Item	Note	At 31 December 2021	At 31 December 2020
Shareholders' equity			
Share capital	5.39	2,959,066,667.00	2,959,066,667.00
Other equity instruments	5.40	2,498,584,905.65	2,498,584,905.65
Including: Preferred stock			
Perpetual bonds	5.40	2,498,584,905.65	2,498,584,905.65
Capital reserve	5.41	875,797,358.53	875,499,924.64
Less: treasury stock			
Other comprehensive income	5.42	124,407,809.47	150,437,505.60
Special reserve	5.43	159,810,487.28	147,328,847.45
Surplus reserve	5.44	224,473,908.75	222,751,992.52
Undistributed profit	5.45	794,976,623.67	1,879,404,403.40
Total shareholders' equity attributable to the parent		7,637,117,760.35	8,733,074,246.26
Minority interests		8,878,064,258.75	6,903,838,437.00
Total shareholders' equity		16,515,182,019.10	15,636,912,683.26
Total liabilities and shareholders' equity		58,828,035,316.25	54,488,845,875.50

Legal representative:
LI Yihua

Accounting principal:
ZHANG Jian

Accounting function's principal:
ZHANG Xiuyin

SECTION 10 FINANCIAL REPORT

BALANCE SHEET OF THE PARENT

As at 31 December 2021

Prepared by: China Aluminum International Engineering Corporation Limited

Unit: RMB

Item	Note	At 31 December 2021	At 31 December 2020
Current assets			
Monetary fund		2,474,632,903.75	1,493,608,825.32
Held-for-trading financial assets			
Derivative financial assets			
Notes receivable			
Accounts receivable	15.1	1,146,826,637.96	1,774,878,637.52
Factoring of receivables		10,862,737.73	82,126,693.67
Prepayments		103,986,735.95	96,272,358.19
Other receivables	15.2	5,720,729,563.93	5,510,991,880.92
Including: Interest receivable		335,554,019.42	321,458,394.38
Dividends receivable		573,773,776.54	479,788,298.10
Inventories		12,293,186.35	13,160,104.02
Contract assets		544,629,235.37	535,374,580.60
Held-for-sale assets			
Non-current assets due within 1 year		968,699,529.49	1,313,634,179.17
Other current assets		64,811,867.32	83,637,100.16
Total current assets		11,047,472,397.85	10,903,684,359.57
Non-current assets:			
Debt investments			
Other debt investments			
Long-term receivables		876,242,248.37	1,030,097,460.95
Long-term equity investments	15.3	7,591,328,036.59	7,044,264,978.81
Other equity instrument investments		18,180,000.00	18,180,000.00
Other non-current financial assets		18,900,000.00	18,900,000.00
Investment properties			
Fixed assets		72,582,883.00	75,900,227.40
Construction in progress			
Bearer biological assets			
Oil & gas assets			
Rights-of-use assets			
Intangible assets		134,554,452.12	140,885,846.97
Development costs			
Goodwill			
Long-term unamortized expenses		130,632.50	
Deferred income tax assets		154,438,876.21	119,098,058.06
Other non-current assets			
Total non-current assets		8,866,357,128.79	8,447,326,572.19
Total assets		19,913,829,526.64	19,351,010,931.76

SECTION 10 FINANCIAL REPORT

Item	Note	At 31 December 2021	At 31 December 2020
Current liabilities			
Short-term borrowings		2,964,860,833.36	2,230,661,333.32
Held-for-trading financial liabilities			
Derivative financial liabilities			15,040,000.00
Notes payable		441,508,727.71	337,754,949.24
Accounts payable		1,609,747,579.78	1,954,854,806.14
Prepayments			
Contract liabilities		1,089,998,413.87	1,107,330,375.75
Employee benefits payable		2,914,045.31	4,441,168.27
Taxes payable		12,400,804.84	5,785,053.19
Other payables		1,187,606,523.26	1,203,044,121.08
Including: Interest payable			
Dividends payable			
Held-for-sale liabilities			
Non-current liabilities due within 1 year		5,895,694.42	205,481,338.86
Other current liabilities		33,009,077.81	1,038,526,180.47
Total current liabilities		7,347,941,700.36	8,102,919,326.32
Non-current liabilities:			
Long-term borrowings		5,728,619,329.16	4,294,600,000.00
Debentures payable			
Including: Preferred stock			
Perpetual bonds			
Lease liabilities			
Long-term payables			
Long-term employee benefits payable		3,620,000.00	3,624,000.00
Estimated liabilities			
Deferred income			
Deferred income tax liabilities			
Other non-current liabilities			
Total non-current liabilities		5,732,239,329.16	4,298,224,000.00
Total liabilities		13,080,181,029.52	12,401,143,326.32

SECTION 10 FINANCIAL REPORT

Item	Note	At 31 December 2021	At 31 December 2020
Shareholders' equity			
Share capital		2,959,066,667.00	2,959,066,667.00
Other equity instruments		2,498,584,905.65	2,498,584,905.65
Including: Preferred stock			
Perpetual bonds		2,498,584,905.65	2,498,584,905.65
Capital reserve		1,190,696,521.57	1,190,696,521.57
Less: treasury stock			
Other comprehensive income		12,049,620.00	12,016,470.00
Special reserve		-23,298.32	871,931.94
Surplus reserve		224,473,908.75	222,751,992.52
Undistributed profit		-51,199,827.53	65,879,116.76
Total shareholders' equity		6,833,648,497.12	6,949,867,605.44
Total liabilities and shareholders' equity		19,913,829,526.64	19,351,010,931.76

Legal representative:
LI Yihua

Accounting principal:
ZHANG Jian

Accounting function's principal:
ZHANG Xiuyin

SECTION 10 FINANCIAL REPORT

CONSOLIDATED INCOME STATEMENT

For Year 2021

Prepared by: China Aluminum International Engineering Corporation Limited

Unit: RMB

Item	Note	Amount for the current period	Amount for the previous period
I. Operating revenue	5.46	23,348,196,308.09	23,025,950,957.87
Less: operating cost	5.46	20,179,849,451.88	20,921,430,158.25
operating taxes and surcharges	5.47	112,677,885.57	111,791,952.41
Sales expense	5.48	95,667,267.79	96,361,614.42
Administrative expense	5.49	1,014,395,807.40	1,000,371,082.96
R&D expense	5.50	760,127,246.39	604,162,835.37
Finance expense	5.51	553,152,827.89	532,098,565.93
Including: Interest expense		543,185,613.67	635,587,091.36
Interest income		122,865,427.99	206,534,565.23
Add: other gains	5.52	2,102,015.58	2,849,413.87
Gain on investment (“–” for loss)	5.53	–52,033,828.16	–8,197,600.41
Including: Share of investment gain on associates and joint ventures		12,574,082.25	20,736,899.25
Gain on de-recognition of financial assets measured at amortized cost (“–” for loss)		–32,316,624.33	–38,586,715.25
Gain on exposure netting (“–” for loss)			
Gain on fair value change (“–” for loss)	5.54	–4,775,780.00	–19,100,700.00
Credit impairment loss (“–” for loss)	5.55	–1,010,912,121.61	–1,058,840,091.11
Asset impairment loss (“–” for loss)	5.56	–329,129,876.33	–566,600,453.43
Gain on disposal of assets (“–” for loss)	5.57	3,299,952.95	10,292,278.54
II. Operating profit (“–” for loss)		–759,123,816.40	–1,879,862,404.01
Add: non-operating income	5.58	52,543,883.49	67,230,365.76
Less: non-operating expense	5.59	49,685,351.66	12,148,519.63
III. Total profit (“–” for total loss)		–756,265,284.57	–1,824,780,557.88
Less: income tax expense	5.60	105,337,595.52	31,616,939.92
IV. Net profit (“–” for net loss)		–861,602,880.09	–1,856,397,497.80
(1) By business continuity:			
1. Net profit from continuing operations (“–” for net loss)		–861,602,880.09	–1,856,397,497.80
2. Net profit from discontinued operations (“–” for net loss)			
(2) By attributable ownership:			
1. Net profit attributable to the shareholders of the parent company (“–” for net loss)		–950,129,673.17	–1,976,138,436.83
2. Loss or profit attributable to minority interests (“–” for net loss)		88,526,793.08	119,740,939.03

SECTION 10 FINANCIAL REPORT

Item	Note	Amount for the current period	Amount for the previous period
V. Other comprehensive income, net of tax		-26,277,684.31	-73,355,171.01
(I) Other comprehensive income attributable to shareholders of the parent, net of tax		-26,029,696.13	-73,389,224.39
1. Items that may not be reclassified to profit or loss		-4,985,383.18	-5,996,780.77
(1) Change on remeasurement of defined benefit plan		-4,876,071.18	-2,706,620.52
(2) Other comprehensive income under equity method that may not be transferred to profit or loss			
(3) Change in fair value of other equity instrument investment		-109,312.00	-3,290,160.25
(4) Fair value change arising from credit risk of the Company			
2. Items that will be reclassified subsequently to profit or loss		-21,044,312.95	-67,392,443.62
(1) Other comprehensive income under equity method that may be transferred to profit or loss			
(2) Change in fair value of other debt investments			
(3) Amount recorded in other comprehensive income upon financial assets reclassification			
(4) Credit impairment provision for other debt investment			
(5) Cash flow hedge reserve			
(6) Currency translation difference		-21,044,312.95	-67,392,443.62
(7) Others			
(II) Other comprehensive income attributable to minority interests, net of tax		-247,988.18	34,053.38
VI. Total comprehensive income		-887,880,564.40	-1,929,752,668.81
(I) Total comprehensive income attributable to shareholders of the parent		-976,159,369.30	-2,049,527,661.22
(II) Total comprehensive income attributable to minority shareholders		88,278,804.90	119,774,992.41
VII. Earnings per share			
(I) Basic earnings per share		-0.37	-0.71
(II) Diluted earnings per share			

In case of business combination under the same control during the current period, net profits realised by the combined party before the combination: Net profits realised by the combined party for the last period:

Legal representative:
LI Yihua

Accounting principal:
ZHANG Jian

Accounting function's principal:
ZHANG Xiuyin

SECTION 10 FINANCIAL REPORT

INCOME STATEMENT OF THE PARENT

For Year 2021

Prepared by: China Aluminum International Engineering Corporation Limited

Unit: RMB

Item	Note	Amount for the current period	Amount for the previous period
I. Operating revenue	15.4	1,093,851,817.14	1,900,007,260.36
Less: operating cost	15.4	645,450,619.17	1,835,637,189.09
Taxes and surcharges		3,330,186.61	6,248,270.30
Sales expense		25,726,442.75	26,274,633.87
Administrative expense		147,873,873.78	153,554,097.67
R&D expense		37,437,295.99	59,125,368.84
Finance expense		95,098,094.81	85,570,347.07
Including: Interest expense		308,993,795.96	350,779,100.21
Interest income		250,132,077.96	312,931,831.77
Add: other gains		371,595.43	1,205,330.69
Gain on investment ("–" for loss)	15.5	282,293,507.93	692,956,777.40
Including: Share of investment gain on associates and joint ventures		7,236,001.68	11,642,682.25
Gain on de-recognition of financial assets measured at amortized cost ("–" for loss)		–53,219,455.06	–47,189,344.76
Gain on exposure netting ("–" for loss)			
Gain on fair value change ("–" for loss)		–4,080,000.00	–15,040,000.00
Credit impairment loss ("–" for loss)		–221,186,706.68	–231,479,243.90
Asset impairment loss ("–" for loss)		–211,394,469.12	–7,317,931.06
Gains on disposal of assets ("–" for loss)		–4,192.78	–28,514.01
II. Operating profit ("–" for loss)		–15,064,961.19	173,893,772.64
Add: non-operating income		1,541,643.26	577,469.29
Less: non-operating expense		4,589,457.44	626,494.03
III. Total profit ("–" for total loss)		–18,112,775.37	173,844,747.90
Less: income tax expense		–35,331,937.64	–37,809,196.32
IV. Net profit ("–" for net loss)		17,219,162.27	211,653,944.22
(I) Net profit from continuing operations ("–" for net loss)			
(II) Net profit from discontinued operations ("–" for net loss)			

SECTION 10 FINANCIAL REPORT

Item	Note	Amount for the current period	Amount for the previous period
V. Other comprehensive income, net of tax		33,150.00	280,500.00
(I) Items that may not be reclassified to profit or loss		33,150.00	280,500.00
1. Change on remeasurement of defined benefit plan		33,150.00	280,500.00
2. Other comprehensive income under equity method that may not be transferred to profit or loss			
3. Change in fair value of other equity instrument investment			
4. Fair value change arising from credit risk of the Company			
(II) Items that will be reclassified subsequently to profit or loss			
1. Other comprehensive income under equity method that may be transferred to profit or loss			
2. Change in fair value of other debt investments			
3. Amount recorded in other comprehensive income upon financial assets reclassification			
4. Credit impairment provision for other debt investment			
5. Cash flow hedge reserve			
6. Currency translation difference			
7. Others			
VI. Total comprehensive income		17,252,312.27	211,934,444.22
VI. Total comprehensive income			
(I) Basic earnings per share			
(II) Diluted earnings per share			

Legal representative:
LI Yihua

Accounting principal:
ZHANG Jian

Accounting function's principal:
ZHANG Xiuyin

SECTION 10 FINANCIAL REPORT

CONSOLIDATED STATEMENT OF CASH FLOWS

For Year 2021

Prepared by: China Aluminum International Engineering Corporation Limited

Unit: RMB

Item	Note	Amount for the current period	Amount for the previous period
I. Cash flows from operating activities:			
Cash received from sales of goods or rendering of services		21,432,714,384.64	24,480,433,853.48
Tax rebate received		38,391,822.11	33,835,787.80
Other cash received relating to operating activities	5.62	215,268,626.75	444,520,514.72
Subtotal of cash inflows from operating activities		21,686,374,833.50	24,958,790,156.00
Cash paid for purchase of goods or receiving of services		16,784,258,790.24	20,795,839,732.68
Cash paid to and for employees		2,259,548,858.97	2,214,863,910.87
Taxes paid		736,614,095.08	804,739,489.20
Other cash paid relating to operating activities	5.62	1,171,738,049.12	532,611,435.80
Subtotal of cash outflows from operating activities		20,952,159,793.41	24,348,054,568.55
Net cash flows from operating activities		734,215,040.09	610,735,587.45
II. Cash flows from investing activities:			
Refund of investments		508,291,218.21	3,582,832,957.75
Gain on investment received		59,752,316.17	76,684,110.68
Net proceeds from disposal of fixed assets, intangible assets and other long-term assets		26,668,415.37	11,906,745.17
Net proceeds from disposal of a subsidiary and other business unit		939,355.29	
Other cash received relating to investing activities	5.62		50,000,000.00
Subtotal of cash inflows from investing activities		595,651,305.04	3,721,423,813.60
Cash paid for purchase and construction of fixed assets, intangible assets and other long-term assets		4,675,293,527.70	4,277,010,852.50
Payment for investments			3,557,035,369.63
Net cash paid for acquisition of a subsidiary and other business unit		4,300,000.00	25,418.56
Other cash paid relating to investing activities	5.62		50,000,000.00
Subtotal of cash outflows from investing activities		4,679,593,527.70	7,884,071,640.69
Net cash flows from investing activities		-4,083,942,222.66	-4,162,647,827.09

SECTION 10 FINANCIAL REPORT

Item	Note	Amount for the current period	Amount for the previous period
III. Cash flows from financing activities:			
Capital contributions received		2,002,180,000.00	2,998,025,500.00
Including: Capital contributions received by subsidiaries from minority shareholders		2,002,180,000.00	2,998,025,500.00
Borrowings received		15,733,922,222.22	26,240,145,927.56
Other cash received relating to financing activities	5.62		9,810,000.00
Subtotal of cash inflows from financing activities		17,736,102,222.22	29,247,981,427.56
Cash paid on repayment of debts		13,381,692,638.45	24,216,776,590.00
Distribution of dividends or profit or payment of interest		894,572,614.96	1,040,804,852.59
Including: dividends or profit paid by subsidiaries to minority shareholders		114,266,762.45	246,249,894.79
Other cash paid relating to financing activities	5.62	23,537,261.28	2,964,536,553.66
Subtotal of cash outflows from financing activities		14,299,802,514.69	28,222,117,996.25
Net cash flows from financing activities		3,436,299,707.53	1,025,863,431.31
IV. Impact of exchange rate on cash and cash equivalents			
		-18,263,398.04	-44,451,697.40
V. Net increase in cash and cash equivalents			
Add: Cash and cash equivalents at beginning of the year	5.63	68,309,126.92 6,549,994,944.43	-2,570,500,505.73 9,120,495,450.16
VI. Cash and cash equivalents at end of the year	5.63	6,618,304,071.35	6,549,994,944.43

Legal representative:
LI Yihua

Accounting principal:
ZHANG Jian

Accounting function's principal:
ZHANG Xiuyin

SECTION 10 FINANCIAL REPORT

CASH FLOW STATEMENT OF THE PARENT

For Year 2021

Prepared by: China Aluminum International Engineering Corporation Limited

Unit: RMB

Item	Note	Amount for the current period	Amount for the previous period
I. Cash flows from operating activities:			
Cash received from sales of goods or rendering of services		2,234,318,285.78	2,967,203,770.80
Tax rebate received			
Other cash received relating to operating activities		674,013,606.06	1,276,076,917.77
Subtotal of cash inflows from operating activities		2,908,331,891.84	4,243,280,688.57
Cash paid for purchase of goods or receiving of services		2,217,265,583.32	2,879,692,233.06
Cash paid to and for employees		241,425,005.04	228,720,581.71
Taxes paid		7,871,901.51	40,316,930.66
Other cash paid relating to operating activities		524,306,811.62	716,086,037.07
Subtotal of cash outflows from operating activities		2,990,869,301.49	3,864,815,782.50
Net cash flows from operating activities		-82,537,409.65	378,464,906.07
II. Cash flows from investing activities:			
Refund of investments		4,701,578,500.00	8,432,018,233.33
Gain on investment received		298,930,549.23	389,020,537.84
Net proceeds from disposal of fixed assets, intangible assets and other long-term assets			14,315.59
Net proceeds from disposal of a subsidiary and other business unit			
Other cash received relating to investing activities		12,698,350.00	
Subtotal of cash inflows from investing activities		5,013,207,399.23	8,821,053,086.76
Cash paid for purchase and construction of fixed assets, intangible assets and other long-term assets		448,863.54	479,509.86
Payment for investments		3,808,841,600.00	8,558,746,433.33
Net cash paid for acquisition of a subsidiary and other business unit		141,885,000.00	579,322,400.00
Other cash paid relating to investing activities		500,000,000.00	
Subtotal of cash outflows from investing activities		4,451,175,463.54	9,138,548,343.19
Net cash flows from investing activities		562,031,935.69	-317,495,256.43

SECTION 10 FINANCIAL REPORT

Item	Note	Amount for the current period	Amount for the previous period
III. Cash flows from financing activities			
Cash receipts from absorbing investments			
Cash receipts from borrowings		8,562,922,222.22	17,834,550,564.93
Other cash receipts related to financing activities			
Subtotal of cash inflows from financing activities		8,562,922,222.22	17,834,550,564.93
Cash payments for repayment of debts		7,671,320,338.45	17,680,200,200.00
Cash payments for distribution of dividends or profit or repayment of interest		444,422,427.46	525,922,840.81
Other cash paid relating to financing activities		27,575,964.37	500,556,779.76
Subtotal of cash outflows from financing activities		8,143,318,730.28	18,706,679,820.57
Net cash from financing activities		419,603,491.94	-872,129,255.64
IV. Impact of exchange rate on cash and cash equivalents		-13,266,555.82	-15,152,495.95
V. Net increase in cash and cash equivalents		885,831,462.16	-826,312,101.95
Add: Cash and cash equivalents at beginning of the year		1,493,571,879.69	2,319,883,981.64
VI. Cash and cash equivalents at end of the year		2,379,403,341.85	1,493,571,879.69

Legal representative:
LI Yihua

Accounting principal:
ZHANG Jian

Accounting function's principal:
ZHANG Xiuyin

SECTION 10 FINANCIAL REPORT

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For Year 2021

Prepared by: China Aluminum International Engineering Corporation Limited

Unit: RMB

Item	Equity attributable to shareholders of the parent										Current period			Total shareholders' interests
	Share capital	Other equity instrument			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	Undistributed profit	Subtotal	Minority interests		
		Preferred stock	Perpetual bonds	Others										
I. Balance at end of last year	2,959,066,667.00		2,498,584,905.65		875,499,924.64		150,437,505.60	147,328,847.45	222,751,992.52	1,879,404,403.40	8,733,074,246.26	6,903,838,437.00	15,636,912,683.26	
Add: Change in accounting policies														
Correction of prior-year errors														
Business combination under common control														
Others														
II. Balance at beginning of the year	2,959,066,667.00		2,498,584,905.65		875,499,924.64		150,437,505.60	147,328,847.45	222,751,992.52	1,879,404,403.40	8,733,074,246.26	6,903,838,437.00	15,636,912,683.26	
III. Increases in the year ("+" for loss)					297,433.89		-26,029,696.13	12,481,633.83	1,721,916.23	-1,094,427,779.73	-1,095,955,485.91	1,974,225,821.75	878,269,335.84	
(I) Total comprehensive income							-26,029,696.13							
(II) Increase and decrease in capital contribution from shareholders														
1. Ordinary shares contributed by shareholders					297,433.89						297,433.89	2,002,180,000.00	2,002,477,433.89	
2. Capital contribution from other equity instrument holders												2,002,180,000.00	2,002,180,000.00	
3. Amount included in owners' equity arising from share-based payment														
4. Others														
(III) Profit distribution					297,433.89						297,433.89		297,433.89	
1. Appropriation to surplus reserve									1,721,916.23	-134,298,106.56	-132,576,190.33	-114,266,762.45	-246,842,952.78	
2. Distribution to shareholders									1,721,916.23	-1,721,916.23				
3. Others												-114,266,762.45	-114,266,762.45	
(IV) Transfers within shareholders' equity														
1. Capital reserve transferred to share capital														
2. Surplus reserve transferred to share capital														
3. Surplus reserve used to make up loss														
4. Change in DBP transferred to retained earnings														
5. Other comprehensive income transferred into retained earnings														
6. Others														
(V) Special reserve														
1. Appropriation to special reserve								12,481,633.83			12,481,633.83	-1,965,220.70	10,515,413.13	
2. Use of special reserve								302,535,823.28			302,535,823.28	30,075,609.82	332,611,633.10	
(VI) Others								-290,054,163.45			-290,054,163.45	-32,042,030.52	-32,096,213.97	
IV. Balance at end of the year	2,959,066,667.00		2,498,584,905.65		875,797,358.53		124,407,809.47	159,810,487.28	224,473,908.75	794,976,623.67	7,637,117,760.35	8,878,064,258.75	16,515,182,019.10	

SECTION 10 FINANCIAL REPORT

Item	Equity attributable to shareholders of the parent										Previous period		
	Share capital	Other equity instrument			Capital reserve	Less: treasury stock	Other comprehensive income	Special reserve	Surplus reserve	Undistributed profit	Subtotal	Minority interests	Total shareholders' interests
		Preferred stock	Perpetual bonds	Others									
I. Balance at end of last year	2,959,066,667.00		2,996,084,905.65		795,341,809.69		223,826,729.99	124,905,233.17	201,586,598.10	4,021,247,997.05	11,322,059,940.65	4,073,320,010.18	15,395,379,950.83
Add: Change in accounting policies													
Correction of prior-year errors													
Business combination under common control													
Others													
II. Balance at beginning of the year	2,959,066,667.00		2,996,084,905.65		795,341,809.69		223,826,729.99	124,905,233.17	201,586,598.10	4,021,247,997.05	11,322,059,940.65	4,073,320,010.18	15,395,379,950.83
III. Increases in the year ("—" for loss)			-497,500,000.00		80,168,114.95		-73,389,224.39	22,423,614.28	21,165,394.42	-2,141,843,593.65	-2,588,985,694.39	2,830,518,426.82	241,632,732.43
(I) Total comprehensive income													
(II) Increase and decrease in capital contribution from shareholders													
1. Ordinary shares contributed by shareholders			-497,500,000.00		80,168,114.95						-417,341,885.05	2,899,385,839.66	2,482,043,954.61
2. Capital contribution from other equity instrument holders													
3. Amount included in owners' equity arising from share-based payment			-497,500,000.00								-497,500,000.00		-497,500,000.00
4. Others					80,168,114.95								
(III) Profit distribution													
1. Appropriation to surplus reserve									21,165,394.42	-165,705,156.82	80,168,114.95	-67,969,660.34	12,188,454.61
2. Distribution to shareholders									21,165,394.42	-21,165,394.42	-144,539,762.40	-177,714,802.29	-322,254,564.69
3. Others													
(IV) Transfers within shareholders' equity													
1. Capital reserve transferred to share capital										-144,539,762.40	-144,539,762.40	-177,714,802.29	-322,254,564.69
2. Surplus reserve transferred to share capital													
3. Surplus reserve used to make up loss													
4. Change in DBP transferred to retained earnings													
5. Other comprehensive income transferred into retained earnings													
6. Others													
(V) Special reserve													
1. Appropriation to special reserve											22,423,614.28	-10,927,602.96	11,496,011.32
2. Use of special reserve											294,329,837.54	27,010,108.02	321,339,945.56
(VI) Others											-271,906,223.26	-37,937,710.98	-309,843,934.24
IV. Balance at end of the year	2,959,066,667.00		2,498,584,905.65		875,499,924.64		150,437,505.60	147,328,847.45	222,751,992.52	1,879,404,403.40	8,733,074,246.26	6,903,838,437.00	15,636,912,883.26

Legal representative: LI Yihua

Accounting principal: ZHANG Jian

Accounting function's principal: ZHANG Xiuyin

SECTION 10 FINANCIAL REPORT

STATEMENT OF CHANGES IN EQUITY OF THE PARENT

For Year 2021

Prepared by: China Aluminum International Engineering Corporation Limited

Unit: RMB

Item	Share capital	Other equity instrument			Capital reserve	Other equity instrument		Surplus reserve	Undistributed profit	Total shareholders' interests
		Preferred stock	Perpetual bonds	Others		Less: treasury stock	Other comprehensive income			
I. Balance at end of last year	2,959,066,667.00		2,498,584,905.65		1,190,696,521.57		12,016,470.00	871,931.94	222,751,992.52	6,949,867,605.44
Add: Change in accounting policies										
Correction of prior-year errors										
Other										
II. Balance at beginning of the year	2,959,066,667.00		2,498,584,905.65		1,190,696,521.57		12,016,470.00	871,931.94	222,751,992.52	6,949,867,605.44
III. Increases in the year ("+" for (loss))							331,500.00	-895,230.26	-117,078,944.29	-116,219,108.32
(I) Total comprehensive income							331,500.00		17,219,162.27	17,252,312.27
(II) Increase and decrease in capital contribution from shareholders										
1. Ordinary shares contributed by shareholders										
2. Capital contribution from other equity instrument holders										
3. Amount included in owners' equity arising from share-based payment										
4. Others										
(III) Profit distribution										
1. Appropriation to surplus reserve								1,721,916.23	-134,298,106.56	-132,576,190.33
2. Distribution to shareholders								1,721,916.23	-1,721,916.23	
3. Others										
(IV) Transfers within shareholders' equity										
1. Capital reserve transferred to share capital									-132,576,190.33	-132,576,190.33
2. Surplus reserve transferred to share capital										
3. Surplus reserve used to make up loss										
4. Change in DBP transferred to retained earnings										
5. Other comprehensive income transferred into retained earnings										
6. Others										
(V) Special reserve										
1. Appropriation to special reserve								-895,230.26		-895,230.26
2. Use of special reserve								1,486,253.35		1,486,253.35
(VI) Others								-2,381,463.61		-2,381,463.61
IV. Balance at end of the year	2,959,066,667.00		2,498,584,905.65		1,190,696,521.57		12,049,620.00	-23,298.32	224,473,908.75	6,833,648,497.12

SECTION 10 FINANCIAL REPORT

Item	Share capital		Other equity instrument		Capital reserve	Previous period		Surplus reserve	Undistributed profit	Total shareholders' interests
	Preferred stock	Perpetual bonds	Others	Less: treasury stock		treasury stock	Other comprehensive income			
I. Balance at end of last year	2,959,066,667.00				1,193,196,521.57		11,735,970.00	201,586,598.10	-1,1615,861.53	7,350,865,040.84
Add: Change in accounting policies										
Correction of prior-year errors										
Other										
II. Balance at beginning of the year	2,959,066,667.00				1,193,196,521.57		11,735,970.00	201,586,598.10	-1,1615,861.53	7,350,865,040.84
III. Increases in the year ("—" for loss)					-2,500,000.00		280,500.00	21,165,394.42	77,494,978.29	-400,997,435.40
(I) Total comprehensive income							280,500.00			
(II) Increase and decrease in capital contribution from shareholders										
1. Ordinary shares contributed by shareholders					-2,500,000.00				-21,070,070.49	-210,789,570.49
2. Capital contribution from other equity instrument holders										-500,000,000.00
3. Amount included in owners' equity arising from share-based payment										
4. Others										-497,500,000.00
(III) Profit distribution										
1. Appropriation to surplus reserve					-2,500,000.00			21,165,394.42	288,565,048.78	-2,500,000.00
2. Distribution to shareholders								21,165,394.42	-21,165,394.42	309,730,443.20
3. Others										
(IV) Transfers within shareholders' equity										
1. Capital reserve transferred to share capital										
2. Surplus reserve transferred to share capital										
3. Surplus reserve used to make up loss										
4. Change in DBP transferred to retained earnings										
5. Other comprehensive income transferred into retained earnings										
6. Others										
(V) Special reserve										
1. Appropriation to special reserve										
2. Use of special reserve										
(VI) Others										
IV. Balance at end of the year	2,959,066,667.00				1,190,696,521.57		12,016,470.00	222,751,992.52	65,879,116.76	6,949,867,605.44

Accounting function's principal:

ZHANG Xiuyin

Accounting principal: ZHANG Jian

Legal representative: LI Yihua

SECTION 10 FINANCIAL REPORT

NOTES TO THE FINANCIAL STATEMENTS

(Amounts expressed in RMB unless otherwise indicated herein)

1. GENERAL INFORMATION

1.1 Place of incorporation, organizational form and head office

China Aluminum International Engineering Corporation Limited (hereinafter referred to as “Chalieco”), formerly known as China Aluminum International Engineering Co., Ltd., was established on 16 December 2003 with a capital contribution of RMB200 million from China Aluminum Group Limited (hereinafter referred to as “China Aluminum Group”) and China Aluminum International Trade Co., Ltd. (hereinafter referred to as “China Aluminum International Trade”), with China Aluminum Group and China Aluminum International Trade holding 95% and 5% equity in Chalieco respectively.

In December 2010, China Aluminum International Trade transferred its 5% equity in the Company to China Aluminum Group, whereupon Chalieco became a wholly-owned subsidiary of China Aluminum Group.

Chalieco was reorganized in 2011 and was incorporated as a joint stock company in Beijing in June 2011 with a registered capital of RMB2,300,000,000.00.

In July 2012, Chalieco offered 363,160,000 shares (H shares) to overseas investors on the main board of the Stock Exchange. The stock abbreviation is “Chalieco” and the stock code is “2068”. In H share offering, under relevant approval, China Aluminum Group and Luoyang Institute converted their 36,316,000 state-owned domestic shares, equivalent to 10% of the number of H shares under public offering, into H shares on a 1:1 basis and transferred them to the National Council of Social Security Funds on the day of listing. Upon consummation of the above offering, the total share capital increased to RMB2,663,160,000.00.

As approved by the Approval in Relation to the Initial Public Offering of Shares by China Aluminum International Engineering Corporation Limited (Zheng Jian Xu Ke [2018] No. 934) issued by the China Securities Regulatory Commission, the stock abbreviation is “中鋁國際” and the stock code is “601068”. On 27 August 2018, the Company issued 295,906,667 ordinary shares in Renminbi to the public (at a face value of RMB1.00 per share), increasing its registered capital by RMB295,906,667.00. The enlarged registered capital is RMB2,959,066,667.00.

Chalieco’s registered address is Building C, No. 99 Xingshikou Road, Haidian District, Beijing, PRC, with a unified social credit code of 911100007109323200.

The ultimate controller of Chalieco is China Aluminum Group Limited.

SECTION 10 FINANCIAL REPORT

1. GENERAL INFORMATION (CONTINUED)

1.2 Business nature and principal operations

The industry in which the Company operates: Construction industry.

Principal business activities: engineering technology, design and consultancy, engineering construction and installation, equipment manufacturing and trading.

1.3 Approver of the financial report and the date of approval

The financial statements were approved by the board of Directors of the Company on 28 March 2022.

1.4 Scope of consolidation of financial statements for the year

Consolidated financial statements for the year covers China Aluminum International Engineering Corporation Limited and its subsidiaries. See Note7(1) for details.

2. BASIS OF PREPARATION

- 2.1 Basis of preparation: The financial statements have been prepared on the going concern basis of actual transactions and events in accordance with “the Accounting Standards for Business Enterprises – Basic Standards” and relevant specific standards (together “the Accounting Standards for Business Enterprises”) issued by the Ministry of Finance, and based on the following significant accounting policies and accounting estimates.
- 2.2 Going concern: The Company has the ability to continue as a going concern at least over the next 12 months from the end of reporting period and there is no material event that may affect the Company’s ability to operate as a going concern.

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

3.1 Statement of compliance with the Accounting Standards for Business Enterprises

The financial statements prepared by the Company give a true and complete view of financial position of the Company as at 31 December 2021, and operating results and cash flows of the Company for the year of 2021 in accordance with the Accounting Standards for Business Enterprises.

3.2 Financial year

The Company’s financial year is the calendar year, from 1st January to 31st December each year.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.3 Operating cycle

The Company takes a 12-months year as a usual operating cycle, and uses an operating cycle to as the standard to determine the liquidity of assets and liabilities.

3.4 Functional currency

The Company's functional currency is RMB.

3.5 Business combination

1. Business combination under common control

If the acquirer of long-term equity investment arising from business combination under common control pays the consideration of combination by payment of cash, transfer of noncash assets or assumption of debts, the Company records the initial cost of long-term equity investment based on the share of the acquiree's owners' equity in the consolidated financial statements of the ultimate controller on the combination date. If the acquirer pays the consideration of combination by issuance of equity instruments, the total face value of the issued shares is recorded as share capital. The capital reserve is adjusted for the difference between the initial investment cost of long-term equity investment and the carrying value of the consideration of combination (or the total nominal value of issued shares). If the capital reserve is not sufficient, any excess reduces retained earnings.

2. Business combination not under common control

For business combination not under common control, the combination cost is the sum of the fair value of assets, liabilities incurred or assumed and equity securities issued by the acquirer in order to obtain control over the acquiree on the acquisition date. The identifiable assets, liabilities and contingent liabilities of the acquiree that meet the recognition conditions and are acquired in the business combination not under common control are measured at their fair value on the acquisition date. The excess of the acquirer's combination cost over the share of fair value of net identifiable assets of the acquiree obtained in the combination is reflected in the value of goodwill. If the acquirer's combination cost is lower than the share of fair value of net identifiable assets of the acquiree obtained in the combination, and the difference remains after view, then the difference is recorded in non-operating income for the current period.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.6 Method for preparing consolidated financial statements

1. Scope of consolidated financial statements

The Company includes all subsidiaries (including separate entities controlled by the Company) in the scope of consolidated financial statements, including companies controlled by the Company, separable parts of the investee and structured entities.

2. Unifying accounting policies, balance sheet date and accounting period of the parent and subsidiaries

If the accounting policy or accounting period adopted by a subsidiary is inconsistent with that adopted by the Company, the subsidiary's financial statements are adjusted for the Company's accounting policy or accounting period as necessary in preparing the consolidated financial statements.

3. Eliminating inter-company transactions

The Company prepares consolidated financial statements based on the financial statements of the Company and its subsidiaries, having eliminated all transactions between the Company and its subsidiaries and among subsidiaries. The share of owners' equity of a subsidiary not attributable to the Company is recorded as minority interests, and presented in "minority interests" in the consolidated balance sheet. If a subsidiary holds long-term equity investment in the Company, the same is deemed treasury stock of the Company, reduces shareholders' interests and is presented as "less: treasury stock" under shareholders' interests in the consolidated balance sheet.

4. Accounting Treatment of Subsidiaries Acquired through Merger

For a subsidiary acquired through business combination under common control, its assets, liabilities, operating results and cash flows are included in the consolidated financial statements from the beginning of the current period, as if the business combination occurred when the ultimate controller started to control the subsidiary. For a subsidiary acquired through business combination not under common control, for the purpose of preparing the consolidated financial statements, its individual financial statements are adjusted to the fair value of its net identifiable assets on the date of acquisition.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.6 Method for preparing consolidated financial statements (Continued)

5. Accounting Treatment of Disposal of Subsidiaries

The Group partially disposes of the long-term equity investments in subsidiaries without loss of control. In the consolidated financial statements, the difference between the disposal price and disposal of long-term equity investments shall be subject to the share of net assets that the subsidiaries continue to calculate from the date of purchase or the date of combination shall adjust capital reserve (capital premium or equity premium). If the capital reserve is not sufficient for offsetting, the retained earnings shall be adjusted.

When disposing of part of the equity investment and losing control of the entity, the Group shall re-measure the fair value of the remaining equity investment subsequent to the disposal at the date when the Group lost control. When preparing the consolidated financial statements, the sum of the disposal consideration amount and the fair value of the remaining equity investment less the difference between the share of the net assets that the original subsidiary from the acquisition date or the combination date, the difference is recorded in the loss of control investment income in the current period and write down the goodwill. Other comprehensive income related to the equity investment of the original subsidiaries shall be transferred to investment income in the current period when the control was lost.

3.7 Classification of joint arrangements and accounting treatment of joint operations

1. Classification of joint arrangements

Joint venture arrangements are classified as either joint operations or joint ventures. A joint arrangement not reached by a separate entity is classified as a joint operation. Separate entities refer to entities with separately identifiable financial structure, including separate incorporated entities, and unincorporated entities recognized by law. A joint arrangement reached through a separate entity is usually classified as a joint venture. If changes in relevant facts and circumstances lead to changes in the rights and obligations of a joint venture to the joint arrangement, the joint venture should reassess the classification of the joint arrangement.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.7 Classification of joint arrangements and accounting treatment of joint operations (Continued)

2. Accounting for joint operations

As a participant in a joint operation, the Company recognizes the following items in relation to its share of interests in the joint operation, and accounts for the same according to requirements of relevant accounting standards for enterprises: separately held assets or liabilities, share of jointly held assets or liabilities, revenue from sales of the share of output of the joint venture, share of revenue generated from the sales of output of the joint venture, separately incurred expenses, and share of expenses incurred by the joint operation. As a participant that does not have joint control over the joint operation, the Company accounts for its investment by reference to requirements applicable to a joint venture if it enjoys relevant assets and assumes relevant liabilities of the joint operation, or it accounts for the investment in accordance with requirements of relevant accounting standards for business enterprises.

3. Accounting for joint ventures

The Company, as a joint venture, accounts for its investment in the joint venture in accordance with requirements of the “Accounting Standards for Business Enterprises No.2 – Long-term Equity Investment”. If not a joint venture, the Company accounts for its investment based on degree of its influence on the joint venture.

3.8 Determination of cash and cash equivalents

For the purpose of preparing the statement of cash flows, cash refers to cash on hand and deposits held at all with banks. For the purpose of preparing the statement of cash flows, cash equivalents refer to short-term highly liquid investments that can be readily converted into known amount of cash with insignificant risk of change in value.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.9 Foreign currency transactions and translation of foreign currency financial statements

1. Translation of foreign currency transactions

The Company translates foreign currency transactions into functional currency at the spot exchange rate prevailing on the date of transaction. On the balance sheet date, foreign currency monetary items are converted at the spot exchange rate prevailing on the balance sheet date. Exchange gain or loss arising from the difference between the spot exchange rate prevailing on that date and the spot exchange rate prevailing at the time of initial recognition or the previous balance sheet date is recognized in the profit or loss, except that exchange differences on foreign currency special loans qualified for capitalization are capitalized and included in the cost of related assets during the capitalization period. Foreign currency non-monetary items measured at historical cost are still converted at the spot exchange rate prevailing on the transaction date, and the amount in its functional currency is not changed. Foreign currency non-monetary items measured at fair value are converted at the spot exchange rate prevailing on the date when the fair value is determined. The difference between the converted amount in functional currency and the original amount in functional currency is treated as fair value change (including exchange rate change) and in profit or loss or in other comprehensive income.

2. Translation of foreign currency financial statements

If any subsidiary, joint venture and associate of the Company adopts a functional currency different from that of the Company, its foreign currency financial statements are translated before accounting and preparation of consolidated financial statements. Assets and liabilities items in the balance sheet are translated at the spot exchange rate prevailing on the balance sheet date. Except for “undistributed profit”, other owners’ equity items are translated at the spot exchange rate prevailing at the time of occurrence. Income and expense items in the income statement are translated at the spot exchange rate on the transaction date. The translation difference on foreign currency statements resulting from the translation is shown within other comprehensive income in owners’ equity in the balance sheet. Foreign currency cash flows are translated at the spot exchange rate prevailing on the date when the cash flow occurs. The impact of exchange rate changes on cash is shown separately in the statement of cash flows. When an overseas operation is disposed of, the translation difference on foreign currency statements related to the overseas operation is recorded in profit or loss for the period in which the disposal occurs in whole or at the percentage of overseas operation disposed of.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments

1. Recognition and derecognition of financial instruments

The Company recognizes a financial asset, financial liability or equity instrument when it becomes a party to a financial instrument contract.

For the purchase or sale of a financial asset by conventional means, the Company recognizes the asset to be received or the liability to be assumed for this purpose on the transaction day, or derecognize the sold asset on the transaction day recognizes the gain or loss on disposal as well as the receivables due from the buyer.

A financial asset that meets any one of the following conditions is derecognized:

- (1) The contractual right to receive cash flows from the financial asset is terminated.
- (2) The financial asset has been transferred, and the transfer meets the requirements for derecognition of financial assets.

If the present obligation of a financial liability (or part thereof) has been discharged, the Company derecognizes the financial liability (or part thereof).

If the Company (as the borrower) and the lender enters into an agreement to replace the original financial liability by assuming a new financial liability, and the contract terms of the new financial liability deviated materially from the original financial liability, the Company derecognizes the original financial liability and recognizes a new financial liability.

If the Company makes any substantial revision to the contract terms of the original financial liability (or part thereof), the original financial liability is derecognized and a new financial liability is recognized in accordance with the revised terms.

If a financial liability (or part thereof) is derecognized, the Company records the difference between its book value and the consideration paid (including non-cash assets transferred or liabilities assumed) in the profit or loss.

If the Company repurchases part of a financial liability, the book value of the financial liability is allocated between the derecognized portion and the remaining portion in proportion to their respective fair values on the repurchasing date. The difference between the book value allocated to the derecognized portion and the consideration paid (including non-cash assets transferred or liabilities assumed) is included in the profit or loss.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

2. Transfer of financial assets

Transfer of a financial asset refers to that the Company (as the transferor) transfers or delivers the financial asset (or its cash flows) to another party (transferee) other than the issuer of the financial asset.

Transfer of a financial asset includes the following two circumstance:

- (1) The Company transfers the contractual right to receive cash flows from the financial asset to another party.
- (2) The Company retains the contractual right to receive cash flows from the financial asset, but undertakes the contractual obligation to pay the received cash flows to one or more ultimate beneficiaries, and the following conditions are satisfied:
 - A. The Company is obliged to pay the ultimate beneficiary only when it receives equivalent cash flows from the financial asset. This condition is deemed satisfied if the Company provides advances but has the right to fully recover the advance and charge interest at the market interest rate.
 - B. Although the transfer contract prohibits the Company from selling or mortgaging the financial asset, the Company can use it as a guarantee of the obligation to pay cash flows to the ultimate beneficiary.
 - C. The Company has the obligation to transfer all cash flows collected on behalf of the ultimate beneficiary to the ultimate beneficiary in a timely manner without any undue delay. The Company has no right to reinvest the cash flows, but this condition is deemed satisfied if the Company invests such cash flows in cash or cash equivalents for the short settlement period between the collection date and the transfer date required by the ultimate beneficiary and pays the gain on such investment to the ultimate beneficiary as agreed in the contract.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

2. Transfer of financial assets (Continued)

When a financial asset is transferred, the Company assesses the degree of risks and rewards in retaining the ownership of the financial asset and treats it as follows:

- (1) If the Company has transferred almost all risks and rewards in the ownership of the financial asset, the financial asset is derecognized, and the rights and obligations generated or retained in the transfer are separately recognized as assets or liabilities.
- (2) If the Company has retained almost all risks and rewards in the ownership of the financial asset, it continues to recognize the financial asset.
- (3) If the Company neither transfers nor retains almost all risks and rewards in the ownership of the financial asset, the Company treats it as follows depending on whether it retains control over the financial asset:
 - A. If the Company does not retain control over the financial asset, the financial asset is derecognized, and the rights and obligations arising from or retained in the transfer are separately recognized as assets or liabilities.
 - B. If the Company retains control over the financial asset, it recognizes relevant financial asset to the extent of its continuing involvement in the transferred financial asset and recognizes relevant liabilities accordingly.

3. Classification of financial assets

The Company classifies financial assets into the following three categories depending on its business mode of managing financial assets and the characteristics of contractual cash flows from financial assets:

- (1) Financial assets at amortized cost.
- (2) Financial assets at fair value through other comprehensive income (FVTOCI).
- (3) Financial assets at fair value through profit or loss (FVTPL).

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

3. Classification of financial assets (Continued)

Financial assets that meet all of the following conditions are classified as financial assets at amortized cost:

- (1) The Company's business mode of managing the financial asset is to collect the contractual cash flows.
- (2) The contractual terms of the financial asset stipulate that the cash flow generated on a specific date is solely the payment of principal and interest based on the amount of outstanding principal.

Financial assets that meet all of the following conditions are classified as financial assets at FVTOCI:

- (1) The Company's business mode of managing the financial asset aims at both collecting the contractual cash flow and selling the financial asset.
- (2) The contractual terms of the financial asset stipulate that the cash flow generated on a specific date is solely the payment of principal and interest based on the amount of outstanding principal.

The Company classifies all financial assets other than those at amortized cost and those at FVTOCI as financial assets at FVTPL.

On initial recognition, the Company may elect to designate equity instrument investments not for trading purpose as financial assets at FVTOCI, and designation is not cancellable once made.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

3. Classification of financial assets (Continued)

If a financial asset or financial liability meets any of the following conditions, it indicates that the Company holds the financial asset or assumes the financial liability for trading purpose:

- (1) The purpose of acquiring relevant financial asset or assuming relevant financial liability is mainly for sale or repurchase in the near future.
- (2) Relevant financial asset or financial liability is part of the identifiable portfolio of financial instruments under centralized management at the time of initial recognition, and there is objective evidence that there is a short-term profit pattern in the near future.
- (3) Relevant financial assets or financial liabilities are derivative instruments. However, derivatives that meet the definition of financial guarantee contracts and derivatives designated as effective hedging instruments are excluded.

On initial recognition, if accounting mismatch can be eliminated or significantly reduced, the Company may elect to designate financial assets as financial assets at FVTPL. The designation is not revocable once made.

4. Classification of financial liabilities

Except for the following items, the Company classifies financial liabilities as financial liabilities at amortized cost:

- (1) Financial liabilities at FVTPL include financial liabilities held for trading (including derivatives that are financial liabilities) and financial liabilities designated at fair value through profit or loss.
- (2) Financial liabilities resulting from the transfer of financial assets that do not meet the conditions for derecognition or from continuing involvement in the transferred financial asset.

If a financial liability arises from contingent consideration recognized by the Company as the acquirer in a business combination not under common control, the financial liability is measured at FVTPL.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

4. Classification of financial liabilities (Continued)

In order to provide more relevant accounting information on initial recognition, the Company may elect to designate a financial liability at FVTPL provided that any of the following conditions is satisfied:

- (1) The designation can eliminate or significantly reduce accounting mismatch.
- (2) Pursuant to the Company's risk management or investment strategy set out in an official written document, the management and performance evaluation of the financial liability portfolio or the portfolio of financial assets and financial liabilities are conducted at fair value, and reported to key management within the Company on this basis.

The designation is not revocable once made.

5. Reclassification of financial instruments

When the Company changes its business mode of managing financial assets, it reclassifies all relevant financial assets affected thereby.

The Company does not reclassify any financial liability.

In case of reclassification of financial assets, the Company adopts the prospective method for relevant accounting treatment from the reclassification date, and does not retroactively adjust previously recognized gains, losses (including impairment losses or gains) or interests.

If the Company reclassifies a financial asset at amortized cost to a financial asset at FVTPL, it measures the asset at its fair value on the reclassification date. The difference between the original book value and the fair value is recorded in profit or loss.

If the Company reclassifies a financial asset at amortized cost to a financial asset at FVTOCI, it measures the financial asset at its fair value on the reclassification date. The difference between the original book value and the fair value is recorded in other comprehensive income. The reclassification of this financial asset does not affect the measurement of its effective interest rate and expected credit loss.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

5. Reclassification of financial instruments (Continued)

If the Company reclassifies a financial asset at FVTOCI to a financial asset at amortized cost, it reverses the accumulated gains or losses previously recorded in other comprehensive income, adjusts the fair value of the financial asset on the reclassification date and uses the adjusted amount as its new book value, as if the financial asset has been measured at amortized cost from the very beginning. The reclassification of the financial asset does not affect the measurement of its effective interest rate and expected credit loss.

If the Company reclassifies a financial asset at FVTOCI to a financial asset at FVTPL, it continues to measure the financial asset at fair value. Meanwhile, the Company transfers accumulated gains or losses previously recorded in other comprehensive income from other comprehensive income to profit or loss.

If the Company reclassifies a financial asset at FVTPL to a financial asset at amortised cost, it uses the fair value on the reclassification date as the new carrying balance.

If the Company reclassifies a financial asset at FVTPL to a financial asset at FVTOCI, it continues to measure the financial asset at fair value.

6. Measurement of financial instruments

The Company measures financial assets or financial liabilities at fair value on initial recognition. For financial assets and financial liabilities at FVTPL, relevant transaction costs are directly recorded in profit or loss; for other financial assets or financial liabilities, relevant transaction costs are recorded in the initial recognition amount. However, if accounts receivable initially recognized by the Company do not contain significant financing component or if the financing component of a contract for a term not exceeding one year is not considered, the financial asset or financial liability is initially measured at the transaction price.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

6. Measurement of financial instruments (Continued)

The amortized cost of a financial asset or financial liability is determined on the basis of its initially recognized amount adjusted as follows:

- (1) Deducting any repaid principal.
- (2) Adding or subtracting the accumulated amortization of the difference between the amount initially recognized and the amount on the maturity date using the effective interest rate method.
- (3) Deducting accumulated allowance for loss (in case of a financial asset).

The Company recognizes interest income using the effective interest rate method. Interest income is calculated and determined by multiplying the carrying balance of a financial asset by the effective interest rate, except for the following:

- (1) For a purchased or originated financial asset that is credit-impaired, the Company calculates and determines its interest income by multiplying the amortized cost of the financial asset by the credit adjusted effective interest rate from the initial recognition.
- (2) For a purchased or originated financial asset that is not credit-impaired but is credit-impaired subsequently, the Company calculates and determines the interest income by multiplying the amortized cost by the effective interest rate in the subsequent period. Where the Company calculates the interest income by applying the effective interest rate method to the amortised cost of a financial asset as aforesaid, if the financial instrument is no longer credit-impaired subsequently due to improvement of its credit risk, and such improvement can be objectively related to an event occurring after the above provisions are applied (such as an upgrade to the debtor's credit rating), the Company then calculates and determines the interest income by multiplying the carrying balance of the financial asset by the effective interest rate.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

6. Measurement of financial instruments (Continued)

A financial asset is credit-impaired when one or more events that have adverse impact on expected future cash flows of the financial asset. Evidences that a financial asset is credit-impaired include the following observable information:

- (1) The issuer or debtor has material financial difficulties;
- (2) The debtor violates the contract, such as default or overdue payment of interest or principal, etc.;
- (3) Creditors grant concessions that would not otherwise be granted to the debtor due to economic or contractual considerations related to the debtor's financial difficulties;
- (4) The debtor is likely to go bankrupt or undergo other financial reorganization;
- (5) An active market for the financial asset disappears as a result of financial difficulties of the issuer or debtor;
- (6) A financial asset is purchased or originated at a substantial discount which reflects the fact that credit loss has occurred.

If the Company revises or renegotiates the contract with the counterparty, which does not result in derecognition of the financial asset but results in a change in cash flows of the contract, the Company recalculates the carrying amount of the financial asset and records relevant gain or loss in profit or loss.

If the Company no longer reasonably expects contractual cash flows of a financial asset to be fully or partially recoverable, the carrying balance of the financial asset is directly written down. Such write-down constitutes derecognition of relevant financial asset.

The Company measures investments in equity instruments and contracts associated with such investments at fair value. However, under limited circumstances, if there is insufficient recent information to determine the fair value or a possible estimate of the fair value covers a wide range, and the cost represents the best estimate of the fair value within the range, then the cost may represent an appropriate estimate of the fair value within the range.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

7. Gain and loss

The Company recognises gain or loss on a financial asset or financial liability measured at fair value in profit or loss, unless the financial asset or financial liability fall under any of the following circumstances:

- (1) It is part of qualifying hedge.
- (2) It is an investment in equity instruments not for trading purpose, and the Company has designated it as a financial asset at FVTOCI.
- (3) It is a financial liability designated at FVTPL and changes in its fair value arising from credit risk of the Company are recorded in other comprehensive income.
- (4) It is classified as a financial asset at FVTOCI, and changes in its fair value other than impairment loss or gain and exchange gain or loss are recorded in other comprehensive income.

The Company recognizes dividend income in profit or loss only if all of the following conditions are met:

- (1) The Company's right to receive the dividends has been established;
- (2) Economic benefits related to the dividends are likely to flow into the company; and
- (3) The amount of dividends can be measured reliably.

Gains or losses arising from a financial asset that is measured at amortized cost and is not part of any hedging are recorded in profit or loss on derecognition, reclassification, amortization using the effective interest rate method or recognition of impairment according to the provisions of these standards.

Gains or losses arising from a financial liability that is measured at amortized cost and is not part of any hedging are recorded in profit or loss upon derecognition or upon amortization using the effective interest rate method.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.10 Financial instruments (Continued)

7. Gain and loss (Continued)

Gains or losses arising from a financial liability designated at FVTPL are treated as follows:

- (1) Changes in fair value of the financial liability caused by changes in credit risk of the Company is recorded in other comprehensive income;
- (2) Other changes in fair value of the financial liability are recorded in profit or loss.

If the above treatment of the impact of changes in credit risk of the financial liability would cause or expand accounting mismatch in profit or loss, the Company records all gains or losses on the financial liability (including the impact of changes in credit risk of the Company) in profit or loss.

Upon derecognition of a financial liability, all accumulated gains or losses previously recorded in other comprehensive income are transferred from other comprehensive income to retained earnings.

Upon derecognition of an equity instrument investment not held for trading purpose that is designated at FVTOCI, all accumulated gains or losses previously recorded in other comprehensive income are transferred from other comprehensive income to retained earnings.

All gains or losses (other than impairment loss or gain and exchange gain or loss) on a financial asset classified at FVTOCI, are recorded in other comprehensive income till its derecognition or reclassification. However, interest income from the financial asset calculated using the effective interest rate method is recorded in profit or loss. The amount recorded in profit or loss of each period is equal to the amount recorded in profit or loss of such period assuming the financial asset has been measured at amortised cost. Upon derecognition of the financial asset, all accumulated gains or losses previously recorded in other comprehensive income are transferred from other comprehensive income to profit or loss.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.11 Determination and accounting of expected credit loss

1. Determination of expected credit loss

The Company accounts for impairment and recognizes loss allowance for the following items based on expected credit loss:

- (1) Financial assets at amortized cost and financial assets at FVTOCI.
- (2) Lease receivables.
- (3) Contract assets.

Expected credit loss refers to the average of credit loss on financial instruments weighted by the risk of default.

For financial assets classified at FVTOCI, the Company recognizes loss allowance in other comprehensive income, and records impairment loss or gain in profit or loss without reducing the book value of the financial assets shown in the balance sheet.

The Company's method for measuring expected credit loss on finance instruments reflects the following elements:

- (1) Unbiased probability weighted average determined by evaluating a series of possible results.
- (2) Time value of money.
- (3) Reasonable and reliable information on past events, current situation and future economic forecast that are available on the balance sheet date without unnecessary extra costs or efforts.

2. Purchased or originated financial assets that are credit-impaired

For purchased or originated financial assets that are credit impaired, the Company recognizes accumulated changes in expected credit loss solely for the lifetime since initial recognition as loss allowance on the balance sheet date. On each balance sheet date, the Company takes the change in lifetime expected credit loss as impairment loss or gain and records it in profit or loss. Even if the lifetime expected credit loss determined on the balance sheet date is less than the amount of expected credit loss reflected in estimated cash flow at the time of initial recognition, the Company recognizes favorable changes in expected credit loss as impairment profit.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.11 Determination and accounting of expected credit loss (Continued)

3. Purchased or originated financial assets that are not credit impaired

- (1) For each of the following items, the Company always measures its loss allowance at an amount equivalent to the lifetime expected credit loss:
 - A. Receivables or contract assets arising from transactions under the Accounting Standards for Business Enterprises No.14 – Revenue, whether or not they contain any significant financing component;
 - B. Lease receivables arising from transactions under the Accounting Standards for Business Enterprises No.21 – Lease, including receivables under finance lease and receivables under operating lease.
- (2) For purchased or originated financial assets (such as other receivables) that are not credit impaired other than those under (1) above, the Company evaluates whether the credit risk of relevant financial instruments has increased significantly since initial confirmation on each balance sheet date, and measures their loss allowance and recognizes their expected credit loss and changes thereof as follows:
 - A. If the credit risk of the financial asset has increased significantly since initial confirmation, the Company measures its loss allowance at an amount equivalent to lifetime expected credit loss of the financial asset.
 - B. If the credit risk of the financial asset has not increased significantly since initial confirmation, the Company measures its loss allowance at an amount equivalent to expected credit loss of the financial asset over the next 12 months.

Any increase in or reversal of loss allowance arising on the basis of expected credit loss is recorded in profit or loss as impairment loss or gain.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.11 Determination and accounting of expected credit loss (Continued)

4. Receivables arising from transactions under the Accounting Standards for Business Enterprises No.14 – Revenue

On the balance sheet date, if expected credit loss can be evaluated for receivables individually significant (a receivable is individually significant if it reaches RMB5 million) and some receivables not individually significant without unnecessary extra costs or efforts, the Company tests them for impairment and recognizes provision for bad debt on an individual basis. For the remaining receivables (excluding those among member companies covered under the consolidated financial statements), expected credit loss is estimated and provision for bad debt is recognized by aging on a collective basis at the following percentages, taking into consideration past experience, current conditions and future forecast:

(1) Accounts receivable

Aging	Accounts receivable proportion (%)
Within 1 year (inclusive)	0.50
Between 1-2 years	10.00
Between 2-3 years	20.00
Between 3-4 years	30.00
Between 4-5 years	50.00
Over 5 years	100.00

(2) Long-term receivables

Aging	Proportion (%)
Before the due date	0.50
Within 1 year past due	10.00
1-2 years past due	20.00
2-3 years past due	30.00
3-4 years past due	50.00
Over 4 years past due	100.00

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.11 Determination and accounting of expected credit loss (Continued)

5. Contract assets arising from transactions under the Accounting Standards for Business Enterprises No.14 – Revenue

On the balance sheet date, if expected credit loss can be evaluated for contract assets individually significant (a contract asset is individually significant if it reaches RMB5 million) and some contract assets not individually significant without unnecessary extra costs or efforts, the Company tests them for impairment and recognizes provision for bad debt on an individual basis ("the specific identification method"). The remaining contract assets are divided into two groups taking into consideration past experience, current conditions and future forecast, and expected credit loss is estimated and provision for bad debt is recognized as follows respectively:

- (1) Group 1: Contract assets not delivered to customers for use

For these contract assets, the Company recognizes provision for bad debt for contract assets at 0.5% of the balance.

- (2) Group 2: Contract assets delivered to customers for use

The Company recognizes provision for bad debt for the contract assets on the basis of aging analysis. The aging is calculated from the date of delivery and the provision for bad debt percentage is as follows:

Aging	Proportion (%)
Within 1 year (inclusive)	0.50
Between 1-2 years	10.00
Between 2-3 years	20.00
Between 3-4 years	30.00
Between 4-5 years	50.00
Over 5 years	100.00

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.12 Inventory

1. Inventory classification

Inventory refers to finished products or commodities held for sale, work in progress of production, and materials consumed in the process of production or rendering of service in daily activities of the Company. It mainly includes contract assets, raw materials, work in process, commodity stock, revolving materials, spare parts and property development costs, which are measured at the lower of cost and net realizable value. Revolving materials include low-value consumables and packaging materials.

2. Measurement of outgoing inventories

The weighted average method is used to determine the actual cost of outgoing inventories.

3. Provision for impairment of inventories

On the balance sheet date, inventories are measured at the lower of cost and net realizable value, and provision for impairment of inventories is recognized on an individual basis, but provision for impairment of inventories in large quantity and low unit price is made by the category of inventories.

4. Inventory system

The Company adopts the perpetual inventory system.

5. Amortization method for low-value consumables and packaging materials

Low-value consumables and packaging materials are amortized on a one-off basis.

3.13 Contract assets and contract liabilities

1. Contract assets

The Company presents as contract assets the right to receive consideration for goods or services that have been transferred to customers (and this right depends on factors other than the lapse of time). Provision for bad debt for contract assets are recognized based on expected credit loss. See Note 3.11 for details on determination and accounting treatment of expected credit loss on contract assets.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.13 Contract assets and contract liabilities (Continued)

2. Contract liabilities

Contract liabilities refer to the obligation to transfer goods or services to customers for the consideration received or receivable from customers. Contract assets and contract liabilities under the same contract are shown on a net basis.

3.14 Long-term equity investment

1. Determination of initial investment cost

The initial investment cost of a long-term equity investment, if acquired in business combination under common control, is determined based on the share of book value of owners' equity of the acquiree in the consolidated financial statements of the ultimate controller on the acquisition date, and if acquired in business combination not under common control, is determined based on the combination cost on the acquisition date. The initial investment cost of a long-term equity investment acquired by payment of cash is the acquisition price actually paid; the initial investment cost of a long-term equity investment acquired by issuance of equity securities is the fair value of the equity securities issued; the initial investment cost of a long-term equity investment acquired through debt restructuring is determined according to relevant provisions of the Accounting Standards for Business Enterprises No. 12 – Debt Restructuring; the initial investment cost of a long-term equity investment acquired through non-monetary asset exchange is determined according to relevant provisions of the Accounting Standards for Business Enterprises No. 7 – Nonmonetary Asset Exchange.

2. Subsequent measurement and gain or loss recognition

The Company accounts for long-term equity investments using the cost method if it can exercise control over the investee and accounts for long-term equity investments in associates and joint ventures using the equity method. The Company's equity investments in associates, if indirectly held through venture capital firms, mutual funds, trust companies or similar entities including investment-linked insurance funds, are accounted for according to the Accounting Standards for Business Enterprises No.22 – Recognition and Measurement of Financial Instruments whether or not the above entities have a significant influence on such investments, and are accounted for using the equity method if otherwise.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.14 Long-term equity investment (Continued)

3. Basis for determining joint control over and significant influence on the investee

Joint control over the investee means that any decision on activities having significant influence on the return of an arrangement is subject to prior unanimous consent of participants sharing the control, including the sales and purchase of goods or services, the management of financial assets, the acquisition and disposal of assets, research and development activities and financing activities. Significant influence on the investee means holding 20% to 50% voting capital of the investee, or (if holding less than 20% voting capital of the investee) falling into any of the following circumstances: being represented in the board of directors or similar authority of the investee; participating in policy-making of the investee; sending management personnel to the investee; being relied on by the investee for technology or technical data; occurrence of material transactions with the investee.

3.15 Investment property

The Company's investment properties are classified into land use rights for lease, buildings for lease, and land use rights held for transfer after appreciation. Investment property is initially measured at cost, and subsequent measured using the cost model.

Among investment property of the Company, buildings for lease are depreciated on a straight line basis, details of which are the same as those for fixed assets. Among investment property of the Company, buildings for lease, and land use rights held for transfer after appreciation are depreciated on a straight-line basis, details of which are the same as those for intangible assets.

3.16 Fixed assets

1. Determination of fixed assets

Fixed assets refer to tangible assets held for the sake of production of goods, rendering of services, lease or business management, with a service life of more than one financial year. A fixed asset is recognized when economic benefits related to the fixed asset are likely to flow into the Company and the cost of this fixed asset can be measured reliably.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.16 Fixed assets (Continued)

2. Classification and depreciation of fixed assets

The Company's fixed assets are mainly classified into houses and buildings, machinery and equipment, electronic equipment, and transportation equipment. Fixed assets are depreciated on a straight-line basis. Service life and estimated net residual value of fixed assets are determined based on the nature and usage of fixed assets, determine the. The service life, estimated net residual value and depreciation method of the fixed assets are reviewed at the end of each year, and adjusted accordingly if there is any difference from original estimates. The Company depreciates all fixed assets, except fixed assets that have been fully depreciated but are still in use and the land that is separately measured and recorded.

Asset category	Estimated service life (year)	Estimated net residual value rate (%)	Annual depreciation rate (%)
Housing and buildings			
General housing and buildings	8–45	3.00, 5.00	2.11–12.13
Temporary facilities	2–3		33.33-50.00
Machinery and equipment	8–20	3.00, 5.00	4.75–12.13
Transportation equipment	5–14	3.00, 5.00	6.79–19.40
Office equipment and others	4–10	3.00, 5.00	9.50–24.25

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.17 Construction in progress

The Company's construction in progress is divided into projects under construction by the proprietor and projects under construction by the contractor. Construction in progress is transferred to fixed assets when the construction is completed and the conditions for intended use are reached. Reaching the conditions for intended use means any of the following circumstances: the substantial construction (including installation) has been finished completely or substantially; the result of trial production or operation shows that the asset can run normally or produce quality products stably or that the asset can function or operate normally; the fixed asset under construction incurs very little or essentially no further capital expenditure; the fixed asset purchased or built has reached or basically reached the designed or contractual requirements.

3.18 Borrowing costs

1. Principles for capitalisation of borrowing costs

Borrowing costs incurred by the Company, which are directly attributable to the purchase, construction or production of qualifying assets, are capitalized into the cost of relevant assets; other borrowing costs are expensed when incurred. Qualifying refer to fixed assets, investment properties, inventories and other assets that require purchase, construction or production activities over a very long period to reach the conditions for intended use.

2. Calculation of capitalised amount

Capitalization period refers to the period from the time point when borrowing costs start capitalization to the time point when capitalization stops, excluding the period during which capitalization of borrowing costs is suspended. The capitalization of borrowing costs are suspended if purchase, construction or production activities are interrupted abnormally for more than 3 consecutive months.

Interest on specific-purpose borrowings is determined based on actual interest expenses incurred for the specific-purpose loan for the current period, minus interest income from depositing the unused portion with the bank or gain on temporary investment. If any general purpose borrowing is used, interest is determined by multiplying the weighted average excess of accumulated asset expenditures over the amount of specific-purpose borrowing by the capitalization rate of utilized general-purpose borrowings. The capitalization rate is the weighted average interest rate of general-purpose borrowings. In case of discount or premium on the borrowing, the discount or premium is amortised during each financial period using the effective interest rate method and the interest amount for each amount is adjusted accordingly.

The effective interest rate method is a method to calculate the amortized discount or premium or interest expense at the effective interest rate of the loan. The effective interest rate is the rate that is used to discount expected future cash flows of the loan over its life to current book value of the loan.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.19 Intangible assets

1. Measurement of intangible assets

Intangible assets are initially measured at cost. For purchased intangible assets, the actual cost is the actually paid price and related expenses. For intangible assets injected by investors, the actual cost is determined at the value agreed in the investment contract or agreement, or if the value agreed in the contract or agreement is unfair, at the fair value. The cost of intangible assets developed by the Company is the total expenditure incurred before reaching the conditions for intended use.

Subsequent measurement of intangible assets: The Company amortises intangible assets with a limited service life using the straight-line method, reviews the service life and amortization method of intangible assets at the end of each year, and makes adjustments if there is any difference from the original estimate. The Company does not amortise intangible assets with an indefinite service life, but review the service life at the end of each year, and estimates its service life and amortize it on a straight-line basis if there is conclusive evidence that the service life is limited.

2. Basis for determining an indefinite service life

If the period over which an intangible asset will bring economic benefits to the Company is not foreseeable, or the service life is indefinite for an intangible asset, the Company determines that the intangible asset has an indefinite service life. Basis for determining an indefinite service life: the intangible asset comes from contractual rights or other legitimate rights, but there is no definite service life stipulated in the contract or the law; It is still impossible to determine the time period over which the intangible assets can bring economic benefits to the Company based on peer conditions or relevant expert opinions.

At the end of each year, the service life of intangible assets with an indefinite service life is reviewed mainly on a bottom-up basis, with the department using the intangible asset to perform basic review for any change in the basis for determining its indefinite service life.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.19 Intangible assets (Continued)

3. Specific criteria for defining research stage and development stage of in-house research and development projects, and specific criteria for development stage costs eligible for capitalization

Specific criteria for defining research stage and development stage of in-house research and development projects:

Research stage costs of in-house research and development projects are expensed when incurred.

Development stage costs satisfying all of the following conditions are recognized as intangible assets:

- (1) It is feasible technically to prepare the intangible asset for use or sale;
- (2) Management has the intention to finish the intangible asset for use or sale;
- (3) It can be proved how the intangible asset will generate economic benefits;
- (4) The Company has sufficient technical, financial and other resources to complete development of the intangible asset and has the ability to use or sell the intangible asset;
- (5) Development stage costs attributable to the intangible asset can be reliably measured.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.19 Intangible assets (Continued)

3. Specific criteria for defining research stage and development stage of in-house research and development projects, and specific criteria for development stage costs eligible for capitalization (Continued)

Development stage costs not satisfying the above conditions are expensed when incurred. Development costs expensed in prior period will not be recognized as an asset in subsequent period. Capitalised development stage costs are shown as development costs in the balance sheet and transferred to intangible asset from the date on which it reaches the conditions for intended use.

Specific criteria for dividing research stage and development stage of in-house research and development projects: the development stage is defined as the planned study phase for acquiring new technologies and knowledge, which is characterized by planning and exploration. The development stage is defined as the stage before commercial production or use during which research results or other knowledge are applied to a certain plan or design to produce new or substantially improved materials, devices and products, and is characterized by and other stages, which are identified as the development stage. This stage has the characteristics of pertinence and greater possibility of generating results.

3.20 Long-term asset impairment

Long-term equity investments, investment properties measured using the cost model, fixed assets, construction in progress, productive biological assets measured using the cost model, oil and gas assets, intangible assets and other long-term assets are tested for impairment if they show signs of impairment on the balance sheet date. If the result of impairment test shows that the recoverable amount of the asset is lower than its book value, the Company recognizes impairment provisions and impairment loss based on the difference.

The recoverable amount is the higher of the fair value of the asset net of disposal expenses and the present value of estimated future cash flows of the asset. Asset impairment provision is calculated and recognized on an asset-by-asset basis. If it is difficult to estimate the recoverable amount of a single asset, the Company estimate the recoverable amount of the asset group to which the asset belongs. An asset group is the smallest group of assets that can generate cash inflow independently.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.20 Long-term asset impairment (Continued)

Goodwill separately shown in the financial statements is tested for impairment at least annually, regardless of whether there is sign of impairment. In the impairment test, the book value of goodwill is allocated to the asset group or asset group combination expected to benefit from the synergy effect of business combination. If the test results show that the recoverable amount of the asset group or the asset group combination containing the allocated goodwill is lower than its book value, impairment loss is recognized accordingly. The amount of impairment loss is firstly offset against the book value of goodwill allocated to the asset group or asset group combination, and then offset against the book value of other assets other than goodwill in the asset group or asset group combination in proportion to their book value.

Once recognized, impairment loss on the above assets cannot be reversed to the extent that the value is recovered in future period.

3.21 Long-term unamortized expenses

Long-term unamortized expenses refer to expenses that have been paid but have a benefiting period longer than one year (one year exclusive). Long-term unamortized expenses are amortized over the period benefiting from the expenses. If the long-term prepaid expense cannot benefit subsequent financial period, the amortized value of the item is fully charged to profit or loss.

3.22 Employee remuneration

Employee remuneration refers to all kinds of remuneration or compensation paid by the Company for services provided by employees or for separation of employment. Employee benefits mainly include short-term compensation, post-service benefits, separation benefits and other long-term employee benefits.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.22 Employee remuneration (Continued)

1. Short-term compensation

Over the financial period when employees provide services, the Company recognizes actually incurred short-term compensation as a liability and charge it to profit or loss, except where the same is included in the cost of an asset as required or permitted by the Accounting Standards for Business Enterprises. Actual employee benefits are charged to profit or loss or included in the cost of relevant asset when incurred. Non-monetary benefits are measured at fair value. Contribution to social security schemes including medical insurance, work injury insurance, and maternity insurance and housing provident fund for employees, as well as appropriation to trade union funds and employee education funds are calculated on required basis and at required percentage, recognized as relevant liability and charged to profit or loss or included in the cost of relevant asset over the period when employees provide services.

2. Post-service benefits

Over the financial period when employees provide services, the Company recognizes a liability based on the amount payable under the defined contribution plan and record it in profit or loss or in the cost of related asset. Benefit obligations arising under the defined benefit plan are attributed to the period over which employees provide services using the project unit credit method, and recorded in profit or loss or in the cost of related asset.

3. Separation benefits

When providing separation benefits to employees, the Company recognizes employee benefits payable arising from separation benefits and charges it to profit loss on the earlier of the following: When the Company cannot unilaterally withdraw separation benefits provided on the separation plan or the reduction proposal; When the Company recognizes the costs or expenses of reorganization involving the payment of separation benefits.

4. Other long-term employee benefits

Other long-term employee benefits provided by the Company for employees that meet the conditions for defined contribution plan are treated in accordance with relevant regulations on defined contribution plan. In addition, net liabilities or net assets of other long-term employee benefits are recognized and measured according to relevant regulations on defined benefit plans.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.23 Estimated liabilities

When the Company assumes a present obligation related to a contingency, the performance of the obligation is likely to result in outflow of economic benefits, and the amount of the obligation can be measured reliably, the obligation is recognized as an estimated liability. The Company makes initial measurement based on best estimate of the amount required to perform relevant present obligation. If there is a continuous range of the amount and all results within the range carry the same probability, the median of the range is determined as the best estimate. If multiple items are involved, the best estimate is calculated and determined based on all possible results and relevant probabilities.

The book value of estimated liabilities is reviewed on the balance sheet date. If there is conclusive evidence that the book value cannot truly reflect the currently best estimate, the book value is adjusted to the currently best estimate.

3.24 Share-based payment

Share-based payment includes equity-settled share-based payment and cash-settled share-based payment. Equity-settled share-based payments in exchange for services provided by employees, are measured at the fair value of equity instruments granted to employees. If there is an active market, the fair value is determined on the basis quotations in the active market; If there is no active market, the fair value is determined using valuation techniques shall be used to determine, including reference to the prices in recent market transactions between knowledgeable and willing parties, reference to the current fair values of other substantially identical financial instruments, discounted cash flow method, and option pricing model.

On each balance sheet date, based on latest information on changes in the number of vesting employees and the achievement of performance indicators, the Company revises the estimated number of exercisable stock options and then determine the amount of expenses allocable to each period. Option expenses that span over multiple financial periods are generally be allocated at the proportion of the length of the waiting period in a certain financial period to the length of the entire waiting period of the option.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.25 Preferred stock, perpetual bonds and other financial instruments

1. Division of financial liabilities and equity instruments

Preferred shares, perpetual bonds (such as long-term option-embedded MTNs), stock options and convertible corporate bonds issued by the Company are classified as financial liabilities or equity instruments on the following principles:

- (1) Settlement through delivery of cash or other financial assets or exchange of financial assets or financial liabilities. If the Company cannot unconditionally avoid performing a contractual obligation by delivering cash or other financial assets, the contractual obligation satisfies the definition of a financial liability.
- (2) Settlement through its own equity instruments. If the financial instrument issued must be settled with or may be settled with equity instrument of the Company as a substitute for cash or other financial assets, the instrument constitutes a financial liability of the Company. The instrument is of the Company's equity instrument if it is intended to enable the holder of the instrument to enjoy residual interests in of the Company's assets net of all liabilities.
- (3) Distinguish between derivative instruments and non-derivative instruments for the classification of financial instruments that need to be settled with or may be settled with equity instruments of the Company in the future. For a non-derivative instrument, if the Company is not obligated to deliver a variable number of its own equity instruments for settlement in the future, the non-derivative instrument is an equity instrument; otherwise, the non-derivative instrument is a financial liability. For a derivative instrument, if the Company can only settle it delivering a fixed number of its own equity instruments in exchange for a fixed amount of cash or other financial assets, the derivative instrument is an equity instrument; If the Company exchanges a fixed amount of its own equity instruments for a variable amount of cash or other financial assets, or exchanges a variable amount of its own equity instruments for a fixed amount of cash or other financial assets, or exchanges a variable amount of its own equity instruments for a variable amount of cash or other financial assets with the conversion price fixed, the derivative instrument is recognized as a financial liability or financial asset.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.25 Preferred stock, perpetual bonds and other financial instruments (Continued)

2. Accounting treatment of preferred stock and permanent bond

The Company accounts for financial instruments classified as financial liabilities in “debentures payable”, accruing interest and adjusting interest adjustment on the book over the life of the instrument, and conducting accounting treatment during the existence of such instrument in accordance with the provisions on the subsequent measurement of financial liabilities at amortized cost in the Financial Instruments Recognition and Measurement Standards. The Company accounts for financial instruments classified as equity instruments in “other equity instruments” and dividends (including interest on instruments classified as equity instruments) distributed over its life are treated as profit distribution.

3.26 Revenue

1. Recognition of revenue

The Company recognizes revenue when it has performed its contractual obligation, i.e. when the customer obtains control over relevant goods or services (hereinafter referred to as “goods”). Obtaining control over relevant goods means being able to dominate the use of the goods and obtain almost all the economic benefits therefrom. Contractual obligation refers to the Company’s commitment to transfer clearly distinguishable goods to the customer in the contract.

If the contract between the Company and the customer meets all of the following conditions at the same time, the Company recognizes revenue when the customer obtains the control over relevant goods:

- (1) Parties to the contract have approved the contract and promised to perform their respective obligations;
- (2) The contract specifies the rights and obligations of the parties related to the goods transferred or services rendered (hereinafter referred to as “goods transferred”);
- (3) The contract has clear payment terms related to the goods transferred;
- (4) The contract has commercial substance, that is, the performance of the contract will change the risk, time distribution or amount of the future cash flow of the Company;
- (5) The consideration that the Company is entitled to due to the transfer of goods to customers is likely to be recovered.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

1. Recognition of revenue (Continued)

For contracts that do not conform to the aforesaid conditions on the contract commencement date, the Company will continuously evaluate them and make accounting treatment when they satisfy the conditions.

For contracts that do not conform to the above conditions, the Company recognizes the consideration received as revenue only when it no longer has the residual obligation to transfer goods to the customer and the consideration received from the customers does not need to be returned. Otherwise, the consideration received is accounted for as a liability. No revenue is recognized on non-monetary asset exchange without commercial substance.

Two or more contracts entered into by the Company and the same customer (or related parties to the customer) at the same time or successively at similar times are consolidated into one contract for accounting treatment in any of the following circumstances:

- (1) The two or more contracts are concluded for the same commercial purpose and constitute a package deal.
- (2) The amount of consideration under either of the two or more contracts depends on the pricing or performance of the other contracts.
- (3) The goods under the two or more contracts (or some goods under each contract) constitute a separate contractual obligation.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

1. Recognition of revenue (Continued)

The Company accounts for contract changes by the following three circumstances:

- (1) If clearly distinguishable goods and contract price are added, and the additional contract price reflects separate selling price of the additional goods, the contract change is treated as a separate contract.
- (2) If the contract change does not fall under circumstances (1), and the goods or services already transferred (hereinafter referred to as “transferred goods”) and the goods or services not transferred (hereinafter referred to as “untransferred goods”) can be clearly distinguished on the date of contract change, the original contract is deemed to be terminated, and the unperformed part of the original contract and the contract change are merged into a new contract for the purpose of accounting treatment.
- (3) If the contract change does not fall under circumstances (1), and the transferred goods and the untransferred goods cannot be clearly distinguished on the date of contract change, and there is no clear distinction between the transferred goods and the non-transferred goods on the contract change date, the contract change is treated as an integral part of the original contract, and the revenue is adjusted for the impact of the contract change on the contract change date.

In any of the following circumstances, the contractual obligation is one performed within a certain period of time; or, it is a contractual obligation performed at a certain point in time:

- (1) While the Company performs the contractual obligation, the customer obtains and consumes economic benefits therefrom at the same time.
- (2) The customer can control the goods in progress while the Company performs the contractual obligation.
- (3) The goods produced by the Company in the performance of the contract have irreplaceable purposes, and the Company is entitled to payment for the portion performed to date over the entire term of the contract.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

1. Recognition of revenue (Continued)

For a contractual obligation performed within a certain period of time, the Company recognizes revenue by the progress in performance over that period of time, except where the progress cannot be reasonably determined. Given the nature of goods, the Company adopts the output method or the input method to determine the progress in performance.

If the progress in performance cannot be reasonably determined, but the incurred costs are expected to be compensated, revenue is recognized on the basis of the incurred costs till the progress in performance can be reasonably determined.

For a contractual obligation performed at a certain point in time, the Company recognizes revenue when the customer obtains control over relevant goods. In determining whether the customer has obtained control over the goods, the Company considers the following signs:

- (1) The Company has the present right to receive payment for the goods, that is, the customer has the present obligation to pay for the goods.
- (2) The Company has transferred the legal ownership of the goods to the customer, that is, the customer has obtained the legal ownership of the goods.
- (3) The Company has physically transferred the goods to the customer, that is, the customer has physically taken possession of the goods.
- (4) The Company has transferred major risks and rewards in ownership of the goods to the customer, that is, the customer has obtained major risks and rewards in ownership of the goods.
- (5) The customer has accepted the goods.
- (6) Other signs indicating that the customer has obtained control over the goods.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

2. Measurement of revenue

The Company measures revenue based on the transaction price allocated to each individual contractual obligation.

Transaction price refers to the amount of consideration that the Company is expected to be entitled to for the transfer of goods to customers. Sums collected by the Company on behalf of third parties and sums expected to be returned to customers by the Company are treated as liabilities and are not included in the transaction price.

The Company determines the transaction price according to contract terms and taking into consideration past practices. In determining the transaction price, the Company takes into account the influence of variable consideration, significant financing component in the contract, non-cash consideration, consideration payable to customers and other factors.

If there is variable consideration under the contract, the Company determines the best estimate of variable consideration on the basis of the expected value or the most likely amount, but the transaction price including variable consideration should not exceed the accumulated recognized revenue that is highly probable not to be significantly reversed when relevant uncertainties are eliminated. The Company considers the possibility of revenue reversal and its proportion when evaluating whether it is highly probable that the accumulated recognized income will not be significantly reversed. On each balance sheet date, the Company should re-estimate the variable consideration amount to be included in the transaction price.

If there is a significant financing component in the contract, the Company determines the transaction price on the basis of the amount payable by the customer assuming that it makes payment in cash upon obtaining control over the goods. The difference between the transaction price and the contractual consideration is amortized using the effective interest rate method over the contract term.

The major financing components in the contract is not considered if on the commencement date of the contract, the Company expects the customer to payment within one year after it obtains control over the goods.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

2. Measurement of revenue (Continued)

If the customer pays non-cash consideration, the Company determines the transaction price at the fair value of non-cash consideration. If the fair value of non-cash consideration cannot be reasonably estimated, the Company indirectly determines the transaction price by reference to the separate selling price at which it promises to transfer the goods to the customer. Any change in the fair value of non-cash consideration due to reasons other than the form of the consideration is treated as variable consideration.

If the Company needs to pay consideration to the customer (or a third party that purchases the goods of the Company from the customer), the transaction price is reduced by the consideration payables, and the revenue for the current period is also reduced by the consideration payable when relevant revenue is recognized or when the Company pays (or undertakes to pay) the consideration, whichever is later, except where the consideration is payable to the customer for obtaining other clearly distinguishable goods from the customer.

If the contract contains two or more contractual obligations, the Company on the commencement date of the Contract, allocates the transaction price to each single contractual obligation in proportion to its separate selling price promised by the Company.

Contractual discount is allocated to each single contractual obligation in proportion. If there is conclusive evidence that the contractual discount is related solely to one or more (but not all) contractual obligations, the Company allocates the contractual discount solely to such one or more contractual obligations.

For variable consideration and its subsequent changes, the Company allocate it to one or more relevant contractual obligations, or to one or more items among a series of clearly distinguishable goods that constitutes a single contractual obligation. For a contractual obligation that has been performed, revenue for the current period is adjusted by the amount of subsequent change in the variable consideration allocated to the contractual obligation.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

3. Application of gross basis and net basis

The Company judges whether it is acting as the principal or the agent when engaged in the transaction by whether it has control over the goods before transferring it to the customer. If the Company is able to control the goods before transferring it to the customer, the Company is the principal and recognizes the total amount of consideration received or receivable as the revenue; Otherwise, the Company acts as an agent and recognizes as revenue the amount of commissions or service fees that the Company is entitled to, which is determined by the amount of total consideration received or receivable net of the price payable to other relevant parties, or by the prescribed amount of percentage of commission.

The Company has control over the goods before transferring them to the customer in the following circumstances:

- (1) The Company obtains the control over the goods or other assets from a third party before transferring it to the customer.
- (2) The Company can dominate a third party to provide services to the customer on behalf of the Company.
- (3) After the control over the goods from a third party, the Company combines the goods with other goods into a combination output by providing significant service and transfers it to the customer.

In determining whether the Company has control over the goods before transferring it to the customer, the Company take into overall account of all relevant facts and circumstances, including:

- (1) The Company bears the main responsibility for transferring goods to the customer.
- (2) The Company assumes inventory risk of the goods before or after the transfer of the goods.
- (3) The Company has the discretion to set the price of the goods.
- (4) Other relevant facts and circumstances.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

4. Specific revenue recognition policies for different types of engineering business

The Company's engineering and construction contracting business covers metallurgical industry, housing construction, highways, municipal works and other fields, and adopts multiple business modes including EPC, EP, PC, BT (Build Transfer) and PPP. For different business modes, the Company formulates rationalised revenue recognition policies for different business modes in accordance with requirements of the Accounting Standards for Business Enterprises No.14 – Revenue.

Under EPC, EP and PC business modes, if the customer invites bids for E (Engineering), P (Procurement) and C (Construction) separately, and the tendering result of one project is completely independent of other projects, the Company identifies each of E, P and C as a separate contractual obligation respectively. In other cases, the Company regards all of E, P and C as one contractual obligation.

Under BT mode, the Company deems that the contractual obligation contains a significant financing component.

Under PPP mode, the Company undertakes two contractual obligations, i.e. construction and operation, and allocates the contractual consideration in proportion to their fair value.

Under different business modes, for the contractual obligation of construction or an integrated contractual obligation containing construction, since the customer can control the goods in progress during the Company's performance, the Company regards it as a contractual obligations performed within a certain period of time, and uses the input method to determine the progress in performance at the percentage of accumulated actual contract cost in the total estimated contract cost.

In the engineering and construction contracting industry, it is a preferred choice to determine the progress in performance at the percentage of accumulated actual contract cost in the total estimated contract cost. The Company's method of determining the progress in performance is consistent with industry practice.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

4. Specific revenue recognition policies for different types of engineering business (Continued)

Determining the progress in performance requires a lot of estimates and judgments from the Company, including estimating total revenue, total cost, quantities of work, material or equipment consumption and unit price. In order to collect basic data for these estimates and judgments, the Company has been committed to establishing and maintaining a series of effective internal control systems, such as accounting methods, accounting practice standards, and financial management methods for projects, so as to strike a balance between ensuring quality of accounting information and reducing uncertainties in estimates and judgments and maintaining reasonable maintenance costs.

The contracts or agreements signed between the Company and the proprietor/customer, the confirmation by the proprietor/customer's representative and supervisor of the quantities of work and settlement amount, and the project settlement data between the Company and subcontractors are all important external evidences for the Company to determine the percentage of completion.

Determination of estimated total revenue: after the contract or agreement is signed, the financial department works operation departments to determine the initial estimated total revenue based on the amount agreed in the contract or agreement. Total contract revenue is adjusted for contract changes, claims and awards in execution of the project based on documents or supplementary agreements issued by the proprietor.

Determination of the estimated total cost: The Company's contract costs include direct labor, equipment or materials, subcontractor costs and machinery usage costs. At the beginning of bidding for the project, the Company estimates the estimated total cost of the project and evaluate its profit prospects by reference to tendering documents and past experience. After the contract or agreement is signed, the financial department works with the procurement department to review and confirm the estimated total cost based on information including the subcontracting contract or agreement, engineering or equipment design drawings, equipment or material suppliers' quotations and labor cost budget and submit it for approval step by step. In the construction process, the engineering control department, in conjunction with the financial department, the procurement department, the construction department and the manufacturing department, revises the detailed cost items as appropriate based on the confirmation of engineering or equipment changes, makes adjustments to the estimated total cost by reference to the recent price changes, and then submit it for approval step by step according to corresponding procedures.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.26 Revenue (Continued)

4. Specific revenue recognition policies for different types of engineering business (Continued)

Collection of actual contract costs: the procurement department, together with the financial department, determines qualified suppliers and subcontractors through tendering for major outsourced cost items for construction of the project or equipment. Procurement staff signs contracts or orders with qualified suppliers according to the approved procurement plan. The warehousing department organizes the acceptance of physical items and the user department confirms the actual use of outsourced labor services. The construction department and manufacturing department applies for materials or equipment according to the approved production plan. The engineering control department and other departments settle accounts with subcontractors regularly or at important nodes to determine subcontractor cost for the current period. The project administration department prepares the labor cost budget according to the Company's remuneration policy, which subject to approval, is used as the standard for daily salary and bonus payment. The financial department, together with the warehousing department, the construction department and the manufacturing department, takes inventory of all kinds of materials on site on a regular basis. After reviewing relevant original vouchers, the financial department records actual contract costs incurred in the current period.

Calculation of progress in progress and revenue and cost: At the end of each month, the financial department calculates progress in performance based on the reviewed estimated total revenue, estimated total cost and actual contract cost, prepares the revenue and cost calculation table, and after it is duly approved, recognize revenue and cost for the month. Under special circumstances where the progress in performance cannot be reasonably determined, the financial department, in conjunction with relevant departments, prudently assess whether the incurred costs are expected to be compensated. After the assessment result is duly approved according to the corresponding procedures, the financial department recognizes revenue and cost for the current month accordingly.

The Company believes that its current internal control system and accounting system are reasonably designed and operate effectively, and combined with important external evidence that are available, can ensure that the Company determines the progress in performance in a prudent and reasonable manner.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.27 Contract cost

The cost incurred by the Company in performing the contract, which does not fall under other accounting standards for business enterprises other than “the Accounting Standards for Business Enterprises No.14 – Revenue” and meets all of the following conditions, is treated as contract performance cost and recognized as an asset:

- (1) The cost is directly related to a current or expected contract, including direct labor, direct materials, manufacturing expenses (or similar expenses), costs definitely borne by the customer and other costs incurred solely as a result of the contract;
- (2) The cost increases the Company’s resources for performing its contractual obligations in the future;
- (3) The cost is expected to be recovered

Incremental cost incurred by the Company in obtaining the contract, if expected to be recovered, are is treated as contract acquisition cost and recognized as an asset. However, if the amortization period of the asset does not exceed one year, it is expensed when incurred.

Assets related to the contract cost are amortized on the same basis on which revenue from goods related to the asset is recognized, and charged to profit or loss.

The excess of the book value of the asset related to the contract cost over the difference between the following two items, is recognized as asset impairment loss and impairment provision is also recognized accordingly:

- (1) The remaining consideration that the Company is expected to obtain due to the transfer of goods related to the asset;
- (2) Estimated costs to be incurred for the transfer of the relevant goods.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.27 Contract cost (Continued)

If due to subsequent changes in factors leading to impairment in prior period, the difference between (1) and (2) above is higher than the book value of the asset, the accrued asset impairment provision is reserved and recorded in profit or loss, provided that the book value after reversal does not exceed the book value of the asset on the reversal date assuming that no impairment provision is accrued.

In determining impairment loss of the asset related to the contract cost, the Company first determines the impairment loss of other assets related to the contract recognized in accordance with other relevant accounting standards for business enterprises other than the Accounting Standards for Business Enterprises No.14 – Revenue, and then determines the impairment loss of the asset related to the contract cost following the aforesaid method.

3.28 Government subsidies

Government subsidies represent monetary assets or non-monetary assets obtained by the Company free of charge from the government, including tax rebates, financial subsidies, etc, but excluding capital injected by the government as an owner.

Government subsidies are recognized when the Company can satisfy the conditions attached and can receive them. If the government subsidies are related to monetary assets, it shall be measured at the amount received or receivable. If the government subsidies are related to non-monetary assets, it shall be measured at its fair value; if the fair value cannot be obtained reliably, it shall be measured at its nominal amount.

Government subsidies related to assets represent government subsidies obtained by the Company for purchasing, constructing or otherwise forming long-term assets.

Government subsidies related to income represent Government subsidies other than Government subsidies related to assets.

Government subsidies related to income are used to compensate for related costs or losses in subsequent periods, and are recognized as deferred income, and are used to write down related costs during the period in which the related costs or losses are recognized; if they are used to compensate for related costs or losses that have occurred, directly write down the relevant costs.

Government subsidies related to assets are used to write down the book value of related assets.

The Company adopts the same presentation method for similar Government subsidies.

Government subsidies related to daily activities are included in operating profit, and government subsidies not related to daily activities are included in non-operating income and expense.



SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.29 Lease

1. The Company as lessee

On the lease commencement date, the Company recognizes the right of use asset and lease liabilities for the lease, except for short-term leases and low-value asset leases subject to simplified treatment.

- (1) The right of use assets is initially measured at cost. The cost includes:
- A. Initial measured amount of the lease liabilities;
 - B. In case of any lease incentive for lease payment made on or before the lease commencement date, the amount of lease incentive is deducted;
 - C. Initial direct expenses incurred by the lessee;
 - D. Costs expected to be incurred by the lessee for dismantling and removing the leased asset, restoring the premise where the leased asset is located to its original conditions or restoring the leased asset to the conditions agreed upon in the lease terms.

After the lease commencement date, the Company depreciates the right of use assets in accordance with regulations on depreciation specified in Note 3.15.

In accordance with provisions of the “Accounting Standards for Business Enterprises No.8 – Asset Impairment”, the Company determines whether the right of use asset is impaired, and accounts for any impairment loss identified.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.29 Lease (Continued)

1. The Company as lessee (Continued)

- (2) Lease liabilities is initially measured at the present value of lease payments unpaid on the lease commencement date.

In calculating the present value of the lease payment, the Company adopts the interest rate on incremental loan as the discount rate.

The Company calculates interest expense of the lease liabilities for each period in the lease term at the above discount rate, and charges it to profit or loss.

- (3) The Company elects not to recognize right of use assets and lease liabilities for short-term lease and low-value asset lease.

2. The Company as lessor

- (1) Lessor's accounting for finance lease

On the lease commencement date, the Company recognizes a receivable under finance and derecognizes the asset under finance lease.

The Company initially measures the receivable under finance lease at the net lease investment.

The net rental investment is the sum of the unsecured residual value and the present value of the lease receipts that have not yet been received on the lease commencement date discounted at the interest rate implicit in lease.

The Company calculates and recognizes interest income for each period in the lease term at the above discount rate.



SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.29 Lease (Continued)

2. The Company as lessor (Continued)

(2) Lessor's accounting for operating lease

Over each period in the lease term, the Company recognizes lease receipts from operating leases as rental income using the straight-line method or other systematic and reasonable methods.

Initial direct expenses incurred by the Company in connection with operating leases are capitalized and allocated and expensed over the lease term on the same basis that rental income is recognized.

The Company depreciates fixed assets under operating lease following depreciation policies for similar assets, and depreciates assets under operating lease in a systematic and reasonable manner according to accounting standards applicable to such assets.

The Company determines whether the asset under operating lease is impaired and accounts for the impairment according to provisions of the Accounting Standards for Business Enterprises No.8 – Asset Impairment”.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.30 Segment information

The Company determines business segments based on its internal organizational structure, management requirements and internal reporting system, and determines reporting segments and discloses segment information on the basis of business segments.

An operating segment refer to a component of the Company that meet all of the following conditions:

- (1) This component can generate income and incur expenses in daily activities;
- (2) Management can regularly evaluate operating results of this component, so as to decide to allocate resources to it and evaluate its performance;
- (3) Financial conditions, operating results, cash flows and other relevant accounting information of the component are available.

If two or more business segments share similar economic characteristics and meet certain conditions, they are combined into one business segment.

3.31 Special reserve

According to provisions of the Notice on Printing and Issuing the Measures for Management of Appropriation to and Use of Production Safety Fund of Enterprises issued by the Ministry of Finance and the State Administration of Work Safety, the Company makes appropriation to production safety fee which is ear marked for improving production safety conditions of the Company.

According to relevant national regulations, the Company makes appropriation to production safety fee and other fees of similar nature, which is separately shown within “special reserve” between “less: treasury stock” and “surplus reserve” in owners’ equity. Production safety fee is included in the cost of related products or charged to profit or loss when incurred, and special reserves is increased accordingly. When the Company uses production safety fee, expensed items directly reduces the special reserves, while capitalized items are collected in construction in progress and recognized as fixed asset when the safety project is completed reaches the conditions for intended use. Meanwhile, the special reserve is reduced by the capitalized amount of production safety fee and depreciation is recognized in the same amount. The fixed asset will not be depreciated in future periods.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.32 Non-monetary asset exchange

Non-monetary asset change are measured on the basis of fair value if the exchange has commercial substance and the fair value of incoming assets or outgoing assets can be measured reliably. The difference between the consideration obtained upon derecognition of the outgoing asset and its book value is recorded in profit of loss.

Non-monetary asset exchange not satisfying conditions for measurement on the basis of fair value are measured at book value. Incoming assets are initially measured at the book value of outgoing assets and plus relevant taxes payable. No gain or loss is recognized on derecognition of outgoing assets.

3.33 Held-for-sale and discontinued operation

The Company classifies non-current assets or disposal groups that meet all of the following conditions as held-for-sale: First, they are ready for sale in current conditions based on the practice of selling such assets or disposal groups in similar transaction; Secondly, the disposal is very likely to happen, that is, the Company has already made resolution on a disposal plan and has obtained a definite purchase promise, and the disposal is expected to be completed within one year. If relevant regulations require prior approval from relevant authority or regulator of the disposal, such disposal should have been obtained.

Upon initial measurement or re-measurement of a held-for-sale non-current asset or disposal group, if its book value is higher than its fair value net of disposal expenses, the book value is written down to the fair value net of disposal expenses, and the write-down amount is charged to profit or loss, and impairment provision is recognized for the held-for-sale asset.

Non-current assets held for sale or assets in the disposal group held for sale are shown as held-for-sale assets in the balance sheet, and liabilities in the disposal group held for sale are shown as held-for-sale liabilities.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.33 Held-for-sale and discontinued operation (Continued)

A discontinued operation is a separately distinguishable component that meets any one of the following conditions and has been disposed of or classified as held for sale by the Company:

1. This component represents an independent major business or a separate major business region;
2. This component is part of an associated plan to dispose of an independent major business or a separate major business region;
3. This component is a subsidiary acquired specifically for resale.

3.34 Key assumptions and uncertainties used in important judgements and accounting estimates made in applying accounting policies

In applying the accounting policies described in Note 3, the Company needs to make judgements, estimates and assumptions in relation to the book value of financial statement items that cannot be accurately measured. These judgments, estimates and assumptions are based on management's past experience and other relevant factors. The actual results may deviate from the Company's estimates. Key assumptions and uncertainties in the Company's accounting estimates that are likely to lead to significant adjustments to the book value of assets and liabilities in future period are set out below:

1. Revenue recognition on engineering construction contract work

The Company recognized revenue from engineering construction in proportion to the progress in performance, while the progress in performance is determined by the accumulative actual contract cost to the total estimated contract cost. Determining the estimated total revenue and estimated total cost of these contracts requires a lot of estimates and judgments from management, including estimating the transaction price adjustment caused by contract changes, estimating the work of quantities to occur, and estimating consumption and unit price of materials or equipment. In executing the contract, management revises their estimates of estimated total revenue and the estimated total cost from time to time based on the latest available information. Adjustments to these estimates may result in an increase or decrease in revenue or costs for the current and future periods and be reflected in the income statement for the corresponding periods.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.34 Key assumptions and uncertainties used in important judgements and accounting estimates made in applying accounting policies (Continued)

2. Receivable and contract asset impairment provision

The Company accounts for impairment of and makes provision for bad debt for receivables and contract assets based on expected credit risks. When they are assessed for impairment loss on a collective basis, the amount of provision is determined based on historical loss pattern of assets with similar credit risk characteristics, observable data reflecting current conditions and reasonable prediction of the future. The Company regularly reviews the methods and assumptions used to estimate the amount and timing of future cash flows of related assets and continuously revises the estimation of expected credit risks. If there are unexpected material changes in credit status of important debtors or customers, it may have a significant impact on operating performance for the relevant period in the future.

3. Income tax

The Company's determination of income tax involves judgment on future tax treatment of certain transactions. In view of the fact that the Company pays corporate income tax in many regions, the Company will prudently assess the tax impact of various transactions and make provision for income tax. The Company regularly reevaluates the tax impact of these transactions in accordance with updated tax regulations. The recognition of deferred tax assets requires the Company to judge the possibility of obtaining future taxable income. The Company continuously reviews its judgment on deferred tax, and recognizes deferred tax assets on deductible temporary differences and deductible tax losses only if it expects that it is likely to obtain utilisable taxable income in future. Nevertheless, there remains the risk of significant differences between the ultimate tax impact and management's judgment.

4. Retirement and early retirement benefits liabilities

Retirement and retirement benefit plans recognized by the Company as liabilities are measured based on various assumptions, including expected life, discount rate, wage growth rate post early retirement, medical expense growth rate and other factors. Management continuously maintains the rationality of these assumptions by engaging professional actuarial institutions and other methods, but it is still possible to make significant adjustments to these assumptions as external economic situation changes, thus affecting the balance of liabilities, profits and other comprehensive income for the relevant period.

SECTION 10 FINANCIAL REPORT

3. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES (CONTINUED)

3.35 Description of changes in major accounting policies and accounting estimates

In order to make the financial report more accurately reflect the company's economic and business nature and achieve accurate internal management and assessment, the Company will, within the scope of the "Accounting Standards for Business Enterprises No. 16 – Government Subsidies" (Cai Kuai [2017] No. 15), change its accounting policy for government subsidies from the original gross method to the net method from 2021 onwards. Government subsidies related to income are used to compensate for related costs or losses in subsequent periods, and are recognized as deferred income, and are used to write down related costs during the period in which the related costs or losses are recognized; if they are used to compensate for related costs or losses that have occurred, directly write down the relevant costs. Government grants related to assets are used to write down the book value of related assets. The main impact of retrospective adjustments caused by such changes in accounting policies on the financial statements of the year 2020 is as follows:

Item	Carrying amount as stated under the original standards	Retrospective adjustment impact	Carrying amount as stated under the new standards
Balance sheet	2020/12/31 (before retrospective adjustment)		2020/12/31 (after retrospective adjustment)
Fixed assets	2,328,805,686.59	-7,185,835.00	2,321,619,851.59
Intangible assets	1,180,268,403.73	-17,992,636.05	1,162,275,767.68
Deferred income	85,234,504.39	-25,178,471.05	60,056,033.34
Income Statement	2020 (before retrospective adjustment)		2020 (after retrospective adjustment)
Operating cost	20,952,852,459.21	-31,422,300.96	20,921,430,158.25
Management expenses	1,037,819,652.56	-37,448,569.60	1,000,371,082.96
Other income	70,017,317.19	-67,167,903.32	2,849,413.87
Non-operating income	69,331,875.05	-2,101,509.29	67,230,365.76
Non-operating expense	12,547,061.68	-398,542.05	12,148,519.63

SECTION 10 FINANCIAL REPORT

4 TAXES

4.1 Major taxes and tax rates

Tax	Tax basis	Tax rate
Value added tax	Taxable value-added amount (taxable amount is calculated by multiplying the taxable sales by the applicable tax rate and deducting the input tax deductible for the current period)	3%、5%、6%、9%、13%
Consumption tax	The sum of VAT actually paid	1%、5%及7%
Urban maintenance and construction tax	The sum of VAT actually paid	3%、2%
Corporate income tax	Taxable income	16.50% (HK)、25% (except preferential treatments set out in Note 4.2)

Taxpayers of the Company subject to different corporate income taxes and their applicable income tax rates are set out below:

Taxpayer	Income tax rate
China Aluminum International Engineering Corporation Ltd.	15.00%
China Nonferrous Metals Processing Technology Co., Ltd.	15.00%
Luoyang Jincheng Construction Supervision Co., Ltd.	10.00%
Luoyang Foyang Decoration Engineering Co., Ltd.	25.00%
Suzhou Nonferrous Metal Materials Deyuan Environmental Protection Co., Ltd.	25.00%
Luoyang Kaiying Technology Co., Ltd.	25.00%
Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	15.00%
Sixth Metallurgical Luoyang Construction Co., Ltd.	25.00%
Sixth Metallurgical Luoyang Mechanical and Electrical Installation Co., Ltd.	25.00%
Sixth Metallurgical (Zhengzhou) Technology Heavy Industry Co., Ltd.	25.00%
Henan Sixth Metallurgical Trading Co., Ltd.	25.00%
Panzhou Haohong Project Management Co., Ltd.	25.00%
Tongchuan Hao Tong Construction Co., Ltd.	25.00%
China Aluminum Great Wall Construction Co., Ltd.	25.00%
Huaian Tong Yun Construction Co., Ltd.	25.00%
Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy	15.00%
Changsha Clinqsoft Info Tech Co., Ltd.	15.00%
Hunan Huachu Project Management Co., Ltd.	20.00%

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.1 Major taxes and tax rates (Continued)

Taxpayer	Income tax rate
Hunan Changye Construction Drawing Examination Co., Ltd.	25.00%
Huachu High-Tech (Hunan) Co., Ltd.	25.00%
China Aluminum International South Engineering Co., Ltd.	25.00%
Wenzhou Tongrun Construction Co., Ltd.	25.00%
Wenzhou Tonghui Construction Co., Ltd.	25.00%
Ninth Metallurgical Construction Co., Ltd.	15.00%
Henan Ninth Metallurgical Construction Co., Ltd.	25.00%
Zhengzhou Ninth Metallurgical Sanwei Chemical Machinery Co., Ltd.	15.00%
Hanzhong Ninth Metallurgical Construction Co., Ltd.	25.00%
Ankang Ninth Metallurgical Changjiali Concrete Co., Ltd.	25.00%
Xinjiang Ninth Metallurgical Construction Co., Ltd.	25.00%
Xianyang Ninth Metallurgical Steel Structure Co., Ltd.	25.00%
Mian County Ninth Metallurgical Kindergarten	25.00%
Ninth Metallurgical Hanzhong Construction Design Institute Co., Ltd.	25.00%
Shaanxi Zhong Mian Investment Company Limited	25.00%
Shenyang Aluminum & Magnesium Design Institute Co., Ltd.	15.00%
Shenyang Boyu Technology Co., Ltd.	15.00%
Shenyang Aluminum & Magnesium Technology Co., Ltd.	15.00%
Shenyang Aluminum & Magnesium Engineering & Research Institute Construction Supervision Co., Ltd.	25.00%
Beijing Huayu Aerospace Control High-Tech Co., Ltd.	15.00%
China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	15.00%
China Nonferrous Metals Industry's Twelfth Metallurgical Chongqing Energy Savings Technology Co., Ltd.	20.00%
Shanxi Nonferrous Metal Twelfth Metallurgical Supplies Co., Ltd.	20.00%
China Aluminum International 12MCC Construction Co., Ltd.	25.00%
China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd.	15.00%
Shenzhen Changkan Survey and Design Co., Ltd.	15.00%
Changsha Tongxiang Construction Co., Ltd.	25.00%
Hunan Tongdu Investment and Development Co., Ltd.	25.00%
China Aluminum International Engineering & Equipment Co., Ltd.	25.00%
China Aluminum International Shandong Chemical Industry Co., Ltd.	25.00%

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.1 Major taxes and tax rates (Continued)

Taxpayer	Income tax rate
China Aluminum International Logistic (Tianjin) Co., Ltd.	25.00%
Shanghai China Aluminum International Supply Chain Management Co., Ltd.	25.00%
Chalieco Hong Kong Corporation Limited	16.50%
Chalieco Malaysia Sdn. Bhd.	25.00%
Shanghai Chalieco Fengyuan Equity Investment Fund Partnership (Limited Partner)	25.00%
China Aluminum International Investment Management (Shanghai) Co., Ltd.	25.00%
Chalieco (Tianjin) Construction Co., Ltd.	25.00%
China Aluminum International Technology Development Co., Ltd.	25.00%
China Aluminum International Engineering (India) Private Limited	30.00%
China Aluminum International Yunnan Aluminum Application Engineering Co., Ltd.	25.00%
Duyun Development Zone Tongda Construction Co., Ltd.	25.00%
Guiyang Aluminum and Magnesium Design Institute Co., Ltd.	15.00%
Guiyang Aluminum and Magnesium Design Institute Construction Contracting Co., Ltd	25.00%
Guiyang Zhenxing Aluminum & Magnesium Technological Development Co., Ltd.	15.00%
Guizhou Light Metal Innovation Research and Equipment Process Co., Ltd.	15.00%
Guiyang Xinyu Construction Supervision Co., Ltd.	10.00%
Guizhou Yundu Properties Company Limited	25.00%
Guizhou Shunan Mechanical and Electric Equipment Co., Ltd.	15.00%
Guangxi Tongrui Investment Construction Co., Ltd.	25.00%
China Aluminum International Aluminum Application Engineering Co., Ltd.	25.00%
Shanxi Nonferrous Metal Twelfth Metallurgical Advanced Materials Co., Ltd.	10.00%
Qingdao Xinfu Gongchuang Asset Management Company Limited	25.00%
Chalco Shandong Engineering Technology Co., Ltd.	15.00%
Chalco Wancheng Shandong Construction Co., Ltd.	25.00%
Kunming Survey and Design institute Co., Ltd. of China Nonferrous Metals industry	15.00%
Kunming Technology Development Co., Ltd.	10.00%
Africa Congo-Kinshasa Company of Kunming Survey and Design Institute of	15.00%
Chinalco Southwest Construction Investment Co., Ltd.	25.00%
Yunnan Miyu Expressway Investment and Development Co., Ltd.	25.00%

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents

1. Tax preferences applicable to high-tech companies

- (1) China Aluminum International Engineering Corporation Limited received the High-tech Enterprise Certificate on 15 July 2019 (Certificate number: GR201911000702, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (2) Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy received the High-tech Enterprise Certificate on 3 December 2018 (Certificate number: GR201843001648, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (3) Changsha Clingsoft Info Tech Co., Ltd. (formerly known as "Changsha Hua Heng Yuan Info Tech Co., Ltd.", formalities for renaming completed on 21 November 2019) received the High-tech Enterprise Certificate on 3 December 2018 (Certificate number: GR201843001122, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (4) China Nonferrous Metals Processing Technology Co., Ltd. received the High-tech Enterprise Certificate on 4 December 2020 (Certificate number: GR202041002031, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents (Continued)

1. Tax preferences applicable to high-tech companies (Continued)

- (5) Guiyang Aluminum and Magnesium Design Institute Co., Ltd. received the High-tech Enterprise Certificate on 29 September 2019 (Certificate number: GR201952000376, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.

- (6) Guizhou Shunan Mechanical and Electric Equipment Co., Ltd. received the High-tech Enterprise Certificate on 1 August 2018 (Certificate number: GR201852000341, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.

Guizhou Shunan Mechanical and Electric Equipment Co., Ltd. received the High-tech Enterprise Certificate on 15 November 2021 (Certificate number: GR202152000344, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2021.

- (7) Guiyang Zhenxing Aluminum & Magnesium Technological Development Co., Ltd. received the High-tech Enterprise Certificate on 1 August 2018 (Certificate number: GR201852000125, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents (Continued)

1. Tax preferences applicable to high-tech companies (Continued)

- (8) Guizhou Light Metal Innovation Research and Equipment Process Co., Ltd. received the High-tech Enterprise Certificate on 1 August 2018 (Certificate number: GR201852000306, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (9) Shenyang Aluminum & Magnesium Design Institute Co., Ltd. received the High-tech Enterprise Certificate on 15 September 2020 (Certificate number: GR202021000737, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (10) Shenyang Boyu Technology Co., Ltd. received the High-tech Enterprise Certificate on 12 October 2018 (Certificate number: GR201821000333, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (11) Shenyang Aluminum & Magnesium Technology Co., Ltd. received the High-tech Enterprise Certificate on 10 November 2020 (Certificate number: GR202021001202, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents (Continued)

1. Tax preferences applicable to high-tech companies (Continued)

- (12) Beijing Huayu Aerospace Control High-Tech Co., Ltd. received the High-tech Enterprise Certificate on 2 December 2019 (Certificate number: GR201911005085, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (13) China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd. received the High-tech Enterprise Certificate on 3 December 2018 (Certificate number: GR201843001632, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (14) Shenzhen Changkan Survey and Design Co., Ltd. received the High-tech Enterprise Certificate on 11 December 2020 (Certificate number: GR202044204582, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (15) Sixth Metallurgical Construction Company of China Nonferrous Metals Industry received the High-tech Enterprise Certificate on 31 October 2019 (Certificate number: GR201941000377, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (16) Ninth Metallurgical Construction Co., Ltd. received the High-tech Enterprise Certificate on 7 November 2019 (Certificate number: GR201961000427, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents (Continued)

1. Tax preferences applicable to high-tech companies (Continued)

- (17) China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd. received the High-tech Enterprise Certificate on 29 November 2019 (Certificate number: GR201914000748, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (18) Kunming Survey and Design institute Co., Ltd. of China Nonferrous Metals industry received the High-tech Enterprise Certificate on 14 November 2018 (Certificate number: GR201853000051, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.
- (19) Chalco Shandong Engineering Technology Co., Ltd. received the High-tech Enterprise Certificate on 30 November 2018 (Certificate number: GR201837000515, valid for three years), which complies with Article 93 of the Regulations on Application of the Income Tax Law of the People's Republic of China, and as a High-tech Enterprise vigorously supported by the State, the Company is entitled to a preferential corporate income tax at 15% for 2020 and 2021.

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents (Continued)

2. Value added tax

- (1) Pursuant to Notice of the Ministry of Finance and the State Administration of Taxation on Bringing Railway Transportation and Postal Service into the Pilot Program of Business Tax-to-Value Added Tax (Cai Shui [2013] No.106), China Aluminum International Engineering Corporation Ltd. is exempted from VAT on revenue from technology transfer.
- (2) Pursuant to Notice of the Ministry of Finance and the State Administration of Taxation on Bringing Railway Transportation and Postal Service into the Pilot Program of Changing Business Tax to VAT ([2013] No.106), China Nonferrous Metals Processing Technology Co., Ltd. is exempted from VAT on revenue from technology transfer.
- (3) Pursuant to Notice on VAT Policies for Software Products issued by the Ministry of Finance and the State Administration of Taxation (Cai Shui [2011] No. 100), Guiyang Zhenxing Aluminum & Magnesium Technological Development Co., Ltd. is entitled to the preferential VAT policy of refund upon levy in respect of the portion of VAT levied after actual tax burden on sales of software produced by itself reaches 3%.
- (4) Pursuant to Notice on VAT Policies for Software Products issued by the Ministry of Finance and the State Administration of Taxation (Cai Shui [2011] No. 100), Guizhou Light Metal Innovation Research and Equipment Process Co., Ltd. is entitled to the preferential VAT policy of refund upon levy in respect of the portion of VAT levied after actual tax burden on sales of software produced by itself reaches 3%.
- (5) China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd. completed the formalities for registration of simplified taxation for general VAT payers on 1 May 2016. Pursuant to the Notice of the Ministry of Finance and the State Administration of Taxation on Fully Pushing Forward the Pilot Program of Changing Business Tax to VAT (Cai Shui [2016] No. 36), as of 1 May 2016, it may elect to apply the preferential policy of simplified taxation for construction services for projects with materials supplied by Party A, engineering construction service provided for old projects and sales of real estate obtained prior to 30 April 2016.
- (6) China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd. completed the formalities for registration for tax exemption for cross border taxable activities of general VAT payers in May 2017. Pursuant to the Notice of the Ministry of Finance and the State Administration of Taxation on Fully Pushing Forward the Pilot Program of Changing Business Tax to VAT (Cai Shui [2016] No. 36), domestic entities and individuals are exempted from VAT in rendering construction services overseas.

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents (Continued)

3. Tax preferences for small and micro enterprises

- (1) Shanxi Nonferrous Metal Twelfth Metallurgical Supplies Co., Ltd. complies with the provisions of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), pursuant to which for the period from 1 January 2019 to 31 December 2021, for small and micro enterprises, the portion of annual taxable income not exceeding RMB1 million is subject to a corporate tax rate of 20% on the basis of 25% of this portion of its taxable income, and the portion of annual taxable income exceeding RMB1 million but not exceeding RMB3 million is subject to corporate tax rate of 20% on the basis of 50% of this portion of its taxable income.

Shanxi Nonferrous Metal Twelfth Metallurgical Supplies Co., Ltd. complies with the provisions of the Cai Shui [2021] No.12, pursuant to which for the period from 1 January 2021 to 31 December 2022, for small and micro enterprises, the portion of the annual taxable income of small and low-profit enterprises not exceeding RMB1 million, in addition to the preferential policies stipulated in Article 2 of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), the enterprise income tax shall be levied by half.

- (2) China Nonferrous Metals Industry's Twelfth Metallurgical Chongqing Energy Savings Technology Co., Ltd. complies with the provisions of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), pursuant to which for the period from 1 January 2019 to 31 December 2021, for small and micro enterprises, the portion of annual taxable income not exceeding RMB1 million is subject to a corporate tax rate of 20% on the basis of 25% of this portion of its taxable income, and the portion of annual taxable income exceeding RMB1 million but not exceeding RMB3 million is subject to corporate tax rate of 20% on the basis of 50% of this portion of its taxable income.

China Nonferrous Metals Industry's Twelfth Metallurgical Chongqing Energy Savings Technology Co., Ltd. complies with the provisions of the Cai Shui [2021] No.12, pursuant to which for the period from 1 January 2021 to 31 December 2022, for small and micro enterprises, the portion of the annual taxable income of small and low-profit enterprises not exceeding RMB1 million, in addition to the preferential policies stipulated in Article 2 of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), the enterprise income tax shall be levied by half.

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents (Continued)

3. Tax preferences for small and micro enterprises (Continued)

- (3) Shanxi Nonferrous Metal Twelfth Metallurgical Advanced Materials Co., Ltd. Complies with the provisions of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), pursuant to which for the period from 1 January 2019 to 31 December 2021, for small and micro enterprises, the portion of annual taxable income not exceeding RMB1 million is subject to a corporate tax rate of 20% on the basis of 25% of this portion of its taxable income, and the portion of annual taxable income exceeding RMB1 million but not exceeding RMB3 million is subject to corporate tax rate of 20% on the basis of 50% of this portion of its taxable income.

Shanxi Nonferrous Metal Twelfth Metallurgical Advanced Materials Co., Ltd. complies with the provisions of the Cai Shui [2021] No.12, pursuant to which for the period from 1 January 2021 to 31 December 2022, for small and micro enterprises, the portion of the annual taxable income of small and low-profit enterprises not exceeding RMB1 million, in addition to the preferential policies stipulated in Article 2 of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), the enterprise income tax shall be levied by half.

- (4) Guiyang Xinyu Construction Supervision Co., Ltd. complies with the provisions of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), pursuant to which for the period from 1 January 2019 to 31 December 2021, for small and micro enterprises, the portion of annual taxable income not exceeding RMB1 million is subject to a corporate tax rate of 20% on the basis of 25% of this portion of its taxable income, and the portion of annual taxable income exceeding RMB1 million but not exceeding RMB3 million is subject to corporate tax rate of 20% on the basis of 50% of this portion of its taxable income.

Guiyang Xinyu Construction Supervision Co., Ltd. complies with the provisions of the Cai Shui [2021] No.12, pursuant to which for the period from 1 January 2021 to 31 December 2022, for small and micro enterprises, the portion of the annual taxable income of small and low-profit enterprises not exceeding RMB1 million, in addition to the preferential policies stipulated in Article 2 of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), the enterprise income tax shall be levied by half.

SECTION 10 FINANCIAL REPORT

4 TAXES (CONTINUED)

4.2 Important tax preferences and approval documents (Continued)

3. Tax preferences for small and micro enterprises (Continued)

- (5) Kunming Technology Development Co., Ltd. complies with the provisions of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), pursuant to which for the period from 1 January 2019 to 31 December 2021, for small and micro enterprises, the portion of annual taxable income not exceeding RMB1 million is subject to a corporate tax rate of 20% on the basis of 25% of this portion of its taxable income, and the portion of annual taxable income exceeding RMB1 million but not exceeding RMB3 million is subject to corporate tax rate of 20% on the basis of 50% of this portion of its taxable income.

Kunming Technology Development Co., Ltd. complies with the provisions of the Cai Shui [2021] No.12, pursuant to which for the period from 1 January 2021 to 31 December 2022, for small and micro enterprises, the portion of the annual taxable income of small and low-profit enterprises not exceeding RMB1 million, in addition to the preferential policies stipulated in Article 2 of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), the enterprise income tax shall be levied by half.

- (6) Luoyang Jincheng Construction Supervision Co., Ltd. complies with the provisions of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), pursuant to which for the period from 1 January 2019 to 31 December 2021, for small and micro enterprises, the portion of annual taxable income not exceeding RMB1 million is subject to a corporate tax rate of 20% on the basis of 25% of this portion of its taxable income, and the portion of annual taxable income exceeding RMB1 million but not exceeding RMB3 million is subject to corporate tax rate of 20% on the basis of 50% of this portion of its taxable income.

Luoyang Jincheng Construction Supervision Co., Ltd. complies with the provisions of the Cai Shui [2021] No.12, pursuant to which for the period from 1 January 2021 to 31 December 2022, for small and micro enterprises, the portion of the annual taxable income of small and low-profit enterprises not exceeding RMB1 million, in addition to the preferential policies stipulated in Article 2 of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), the enterprise income tax shall be levied by half.

- (7) Hunan Huachu Project Management Co., Ltd. complies with the provisions of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), pursuant to which for the period from 1 January 2019 to 31 December 2021, for small and micro enterprises, the portion of annual taxable income not exceeding RMB1 million is subject to a corporate tax rate of 20% on the basis of 25% of this portion of its taxable income, and the portion of annual taxable income exceeding RMB1 million but not exceeding RMB3 million is subject to corporate tax rate of 20% on the basis of 50% of this portion of its taxable income.

Hunan Huachu Project Management Co., Ltd. complies with the provisions of the Cai Shui [2021] No.12, pursuant to which for the period from 1 January 2021 to 31 December 2022, for small and micro enterprises, the portion of the annual taxable income of small and low-profit enterprises not exceeding RMB1 million, in addition to the preferential policies stipulated in Article 2 of the Notice on Applying Inclusive Tax Relief Policies to Small and Micro Enterprises (Cai Shui [2019] No.13), the enterprise income tax shall be levied by half.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5.1 Monetary fund

Category	Closing balance	Opening balance
Cash	738,796.17	644,341.40
Bank deposits	6,644,536,818.05	6,600,712,134.14
Other monetary fund	871,520,745.03	679,894,647.79
Total	7,516,796,359.25	7,281,251,123.33
Including: total amount deposited abroad	69,651,916.65	74,008,500.74

Notes:

- As at 31 December 2021, monetary funds included restricted cash of RMB898,492,287.90, including bank deposits secured for bank guarantees and acceptance bills and frozen deposits;
- As at 31 December 2021, the Company a total of RMB3,932,073,949.51 deposited with Chinalco Finance Company Limited ("Chinalco Finance"), a related non-banking financial institution under common control of China Aluminum Group.

5.2 Notes receivable

Category	Closing balance	Opening balance
Bank's acceptance bills	8,232,891.32	8,005,940.92
Commercial acceptance bills		
Less: Provision for bad debt		
Total	8,232,891.32	8,005,940.92

Notes:

- In 2021, the Company's business model for managing notes receivable includes both collection of contractual cash flow as the target and sales as the target. Therefore, the Company's notes receivable measured at fair value and financial assets where changes are included in other comprehensive income shall be included in the receivables financing;
- As of 31 December 2021, we had no accounts receivable transferred from notes receivable due to drawer's failure to perform the obligation;
- As of 31 December 2021, the Company had no bank's acceptance bills pledged but not yet due;
- As of 31 December 2021, we had no bank's acceptance bills discounted but not yet due;
- As of 31 December 2021, we had no bank's acceptance bills endorsed but not yet due.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.3 Accounts receivable

1. Accounts receivable disclosed by category

Category	Closing balance		Provision for bad debt	
	Carrying amount Amount	Percentage (%)	Amount	Percentage (%)
Accounts receivable tested for provision for bad debt on an individual basis	1,605,952,699.12	8.80	932,252,652.89	58.05
Accounts receivable tested for provision for bad debt on a collective basis	16,646,859,653.23	91.20	2,035,666,227.68	12.23
Including, Group 1: Expected credit loss group	16,646,859,653.23	91.20	2,035,666,227.68	12.23
Subtotal	16,646,859,653.23	91.20	2,035,666,227.68	12.23
Total	18,252,812,352.35	100.00	2,967,918,880.57	16.26

Category	Opening balance		Provision for bad debt	
	Carrying amount Amount	Percentage (%)	Amount	Percentage (%)
Accounts receivable tested for provision for bad debt on an individual basis	1,143,892,036.69	6.10	549,216,764.02	48.01
Accounts receivable tested for provision for bad debt on a collective basis	17,599,556,025.75	93.90	1,882,540,380.11	10.70
Including, Group 1: Expected credit loss group	17,599,556,025.75	93.90	1,882,540,380.11	10.70
Subtotal	17,599,556,025.75	93.90	1,882,540,380.11	10.70
Total	18,743,448,062.44	100.00	2,431,757,144.13	12.97

Note: As of 31 December 2021, the amount of pledged accounts receivable was RMB158,840,940.68.



SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.3 Accounts receivable (Continued)

1. Accounts receivable disclosed by category (Continued)

- (1) Accounts receivable tested for impairment on an individual basis as at the end of the period

Entity	Carrying amount	Provision for bad debt	Aging	Expected credit loss rate(%)	Reason for the provision
Debtor 1	270,461,656.45	171,444,899.90	1-2 years 、 2-3 years	63.39	The Company made provisions for credit losses based on the recoverability of the amount.
Debtor 2	216,793,487.46	130,076,092.48	Over 5 years	60.00	The Company made provisions for credit losses based on the recoverability of the amount.
Debtor 3	212,855,167.01	78,641,751.75	3-4 years 、 4-5 years 、 Over 5 years	36.95	The Company made provisions for credit losses based on the recoverability of the amount.
Debtor 4	163,993,184.19	65,597,273.68	Within 1 year 、 1-2 years 、 3-4 years	40.00	The Company made provisions for credit losses based on the recoverability of the amount.
Debtor 5	100,647,615.21	100,647,615.21	Within 1 year 、 1-2 years	100.00	The Company made provisions for credit losses based on the recoverability of the amount.
Others	641,201,588.80	385,845,019.87	—	60.18	The Company made provisions for credit losses based on the recoverability of the amount.
Total	1,605,952,699.12	932,252,652.89	—	58.05	—

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.3 Accounts receivable (Continued)

1. Accounts receivable disclosed by category (Continued)

(2) Accounts receivable tested for impairment on a collective basis

Group 1: Expected credit loss group

Aging	Closing balance			Opening balance		
	Carrying amount	Expected credit loss rate (%)	Provision for bad debt	Carrying amount	Expected credit loss rate (%)	Provision for bad debt
Within 1 year	8,185,186,306.37	0.50	40,925,932.25	10,718,973,390.66	0.50	53,594,867.45
Between 1-2 years	4,866,678,655.77	10.00	486,667,865.91	3,419,824,362.31	10.00	341,982,436.47
Between 2-3 years	1,468,349,627.77	20.00	293,677,960.44	1,604,061,686.52	20.00	320,812,337.31
Between 3-4 years	1,052,251,985.52	30.00	315,691,819.24	482,257,447.30	30.00	144,677,234.30
Between 4-5 years	351,380,856.45	50.00	175,690,428.49	705,931,269.22	50.00	352,965,634.84
Over 5 years	723,012,221.35	100.00	723,012,221.35	668,507,869.74	100.00	668,507,869.74
Total	16,646,859,653.23	-	2,035,666,227.68	17,599,556,025.75	-	1,882,540,380.11



SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.3 Accounts receivable (Continued)

2. Addition to or recovery or reversal of provision for bad debt

For the reporting period, addition to provision for bad debt was RMB630,523,612.94, and recovered or reversed provision for bad debt was RMB13,781,767.53.

Significant recovered or reversed provision for bad debt for the period:

Entity	Amount reversed or recovered	Recovery method
Debtor 1	5,783,425.00	The outstanding amount has been recovered
Debtor 2	1,820,000.00	The outstanding amount has been recovered
Debtor 3	1,250,000.00	The outstanding amount has been recovered
Debtor 4	1,167,503.50	The outstanding amount has been recovered
Debtor 5	440,504.66	The outstanding amount has been recovered
Total	10,461,433.16	—

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.3 Accounts receivable (Continued)

3. Significant accounts receivables written off in the reporting period

Accounts receivables written off in the reporting period amounted to RMB54,940,829.65.

Significant provision for bad debt written off in the period:

Entity	Nature	Amount written-off	Reason for write-off	Write-off procedures	Arising from connected transaction or not
Debtor 1	Construction payment	5,436,096.14	The amount was unrecoverable as there was no property available for execution	To be approved at meeting convened by general manager of the Company	No
Debtor 2	Payment for materials	5,420,325.00	The counterparty is bankrupt and has no property available for distribution by the bankrupt creditor, and can not be recovered	To be approved at meeting convened by general manager of the Company	No
Debtor 3	Payment for materials	5,100,180.00	The counterparty is bankrupt and has no property available for distribution by the bankrupt creditor, and can not be recovered	To be approved at meeting convened by general manager of the Company	No
Debtor 4	Survey and design fee	4,900,000.00	The counterparty is bankrupt and has no property available for distribution by the bankrupt creditor, and can not be recovered	To be approved at meeting convened by general manager of the Company	No
Debtor 5	Survey and design fee	4,700,000.00	The amount was unrecoverable as there was no property available for execution	To be approved at meeting convened by general manager of the Company	No
Debtor 6	Survey and design fee	4,480,000.00	The amount was unrecoverable as the entity has deregistered	To be approved at meeting convened by general manager of the Company	No
Total	–	30,036,601.14	–	–	–

**SECTION 10 FINANCIAL REPORT****5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)****5.3 Accounts receivable (Continued)****4. Top five debtors of accounts receivable as at the end of the period**

Entity	Closing balance	Percentage in total accounts receivable (%)	Balance of provision for bad debt
No. 1	633,152,862.65	3.47	46,117,536.03
No. 2	441,661,916.89	2.42	208,021,018.41
No. 3	438,851,001.81	2.40	2,194,255.01
No. 4	385,696,314.23	2.11	26,065,825.90
No. 5	312,841,676.03	1.71	28,498,609.50
Total	2,212,203,771.61	12.12	310,897,244.85

5. Receivables derecognized on financial assets transfer

During the reporting period, the Company sold part of its accounts receivable (hereinafter referred to as “underlying assets”) to an ABS plan, and the Company a portion of subordinated asset-backed securities therein. As the asset manager, the Company provided service for the ABS plan, including asset management, asset recovery, change in underlying assets and other service. In 2021, the balance of accounts receivable sold by the Company to the ABS plan was RMB1,032,601,507.24, resulting in a loss of RMB33,012,404.33.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.3 Accounts receivable (Continued)

5. Receivables derecognized on financial assets transfer (Continued)

As it does not have substantial control over the ABS plan, the Company does not need to consolidate the ABS plan into its financial statements. Meanwhile, since the Company neither transferred nor retained almost all risks and rewards in the ownership of the underlying assets, the Company continues to recognize relevant financial asset to the extent of its continuing involvement in the underlying asset, and recognizes relevant liability accordingly. As of 31 December 2021, the Company's recognized asset of RMB18,900,000.00 relation to the continuing involvement.

5.4 Receivables financing

Items	Closing balance	Opening balance
Notes receivable	730,574,231.09	571,448,716.65
Accounts receivable		
Total	730,574,231.09	571,448,716.65

Notes:

1. For 2021, the Company's business model for managing notes receivable includes both collection of contractual cash flow as the target and sales as the target. Therefore, the Company's notes receivable measured at fair value and financial assets where changes are included in other comprehensive income shall be included in the receivables financing;
2. As of 31 December 2021, the Company had no accounts receivable transferred from notes receivable due to drawer's failure to perform the obligation;
3. As of 31 December 2021, bank's acceptance bills pledged but not yet due amounted to RMB88,175,287.39;
4. As of 31 December 2021, bank's acceptance bills discounted but not yet due amounted to RMB794,108,241.65;
5. As of 31 December 2021, bank's acceptance bills endorsed but not yet due amounted to RMB2,124,798,262.65.



SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.5 Prepayments

1. Prepayments presented by aging

Aging	Closing balance		Opening balance	
	Amount	Percentage (%)	Amount	Percentage (%)
Within 1 year	331,815,184.95	90.63	188,213,964.83	74.13
Between 1-2 years	18,513,465.94	5.06	33,456,780.60	13.18
Between 2-3 years	5,747,004.66	1.57	28,579,284.52	11.26
Above 3 years	10,042,876.00	2.74	3,641,210.00	1.43
Total	366,118,531.55	100.00	253,891,239.95	100.00

Significant prepayments aged over 1 year

Creditor	Debtor	Closing balance	Aging	Reason for unsettlement
The sixth branch of Ninth Metallurgical Construction Co., Ltd.	Supplier 1	3,000,000.00	1-2 years	Settlement conditions were not met
The sixth branch of Ninth Metallurgical Construction Co., Ltd.	Supplier 2	3,000,000.00	1-2 years	Settlement conditions were not met
Total	—	6,000,000.00	—	—

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.5 Prepayments (Continued)

2. Top 5 entities in terms of prepayments

Entity	Closing balance	Percentage in total prepayments (%)
No. 1	21,128,597.80	5.77
No. 2	15,834,060.00	4.32
No. 3	13,834,848.51	3.78
No. 4	9,788,000.00	2.67
No. 5	9,764,403.28	2.67
Total	70,349,909.59	19.22

5.6 Other receivables

Category	Closing balance	Opening balance
Interest receivable	540,607.12	605,340.88
Dividends receivable	—	
Other receivables	3,657,243,460.07	3,136,426,314.01
Less: Provision for bad debt	1,304,840,850.46	993,625,011.53
Total	2,352,943,216.73	2,143,406,643.36

1. Interest receivable

(1) Classification of interests receivable

Items	Closing balance	Opening balance
Time deposits		64,733.75
Others	540,607.12	540,607.13
Less: Provision for bad debt		
Total	540,607.12	605,340.88

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.6 Other receivables (Continued)

2. Other receivables

(1) Other receivables by nature

Nature	Closing balance	Opening balance
Financing provided to Party A and its related parties	607,106,080.19	860,006,391.53
Retention funds or deposits	1,205,677,432.80	1,033,168,233.69
Advance	1,614,970,612.05	1,076,193,033.97
Imprest	69,704,517.22	25,308,867.28
Others	159,784,817.81	141,749,787.54
Subtotal	3,657,243,460.07	3,136,426,314.01
Less: Provision for bad debt	1,304,840,850.46	993,625,011.53
Total	2,352,402,609.61	2,142,801,302.48

Notes: In order to actively expand the market and share a win-win result with proprietors, the Company signs a capital arrangement agreement with some proprietors of the engineering contracting projects. In addition to general engineering construction services, the Company also provide the proprietors with a certain amount of financing in support of their completion of designated construction projects. Meanwhile, the Company charges a financing fee at agreed interest rate. As of 31 December 2021, the Company had failed to collect the financing fee or principal due on several capital arrangement agreements, and is actively negotiating with the proprietors and relevant parties. The Company has made judgment based on current progress of relevant construction contracting projects, guarantees provided by the proprietors and relevant parties, as well as negotiations between the Company and the proprietors and relevant parties, and has accrued provision for bad debt for relevant receivables. The Company believes that, based on the information currently available, the provision for bad debts against such claims is sufficient to cover the risk of recovery.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.6 Other receivables (Continued)

2. Other receivables (Continued)

(2) Aging analysis of other receivables

Aging	Closing balance		Opening balance	
	Carrying amount	Percentage (%)	Carrying amount	Percentage (%)
Within 1 year	1,714,606,748.62	46.88	1,260,589,534.51	40.19
Between 1-2 years	532,656,905.34	14.56	429,930,347.81	13.71
Between 2-3 years	357,097,789.23	9.76	276,288,168.52	8.81
Between 3-4 years	307,491,507.58	8.41	230,942,466.01	7.36
Between 4-5 years	396,365,888.49	10.84	586,435,085.43	18.70
Over 5 years	349,024,620.81	9.54	352,240,711.73	11.23
Total	3,657,243,460.07	100.00	3,136,426,314.01	100.00

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.6 Other receivables (Continued)

2. Other receivables (Continued)

(3) Provision for bad debt

Provision for bad debt	Stage 1 Expected credit loss in the next 12 months	Stage 2 Expected credit loss for the entire duration of the life (no credit impairment)	Stage 3 Expected credit loss for the entire duration of the life (credit-impaired)	Total
Opening balance	5,045,414.85	82,196,229.58	906,383,367.10	993,625,011.53
Opening balance after reassessment for the period				993,625,011.53
– transfers to stage 2	–1,540,158.92	1,540,158.92		–
– transfers to stage 3		–42,677,704.42	42,677,704.42	–
– transfers back to stage 2				
– transfers back to stage 1				
Provision for the period	3,433,190.49	38,816,222.77	277,943,411.42	320,192,824.68
Reversal for the period			8,176,813.40	8,176,813.40
Write off for the period			1,080,446.98	1,080,446.98
Other changes			280,274.63	280,274.63
Closing balance	6,938,446.42	79,874,906.85	1,218,027,497.19	1,304,840,850.46

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.6 Other receivables (Continued)

2. Other receivables (Continued)

(3) Provision for bad debt (Continued)

Provision for bad debt in stage 3:

Entity	Carrying amount	Balance of provision for bad debt	Percentage of expected credit loss (%)	Reasons for categorization
Debtor 1	418,096,722.65	302,817,790.00	72.43	Based on the recoverability and the actual aging
Debtor 2	187,254,309.00	173,458,180.96	92.63	Based on the recoverability and the actual aging
Debtor 3	184,873,251.81	92,436,625.91	50.00	Based on the recoverability and the actual aging
Debtor 4	29,123,505.40	11,649,402.16	40.00	Based on the recoverability and the actual aging
Debtor 5	18,646,871.20	18,646,871.20	100.00	Based on the recoverability and the actual aging
Others	878,169,250.79	619,018,626.96	70.49	Based on the recoverability and the actual aging
Total	1,716,163,910.85	1,218,027,497.19	70.97	

**SECTION 10 FINANCIAL REPORT****5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)****5.6 Other receivables (Continued)****2. Other receivables (Continued)**

- (4) Significant provision for bad debts provided, recovered or reversed for the period

The amount of provision for bad debts provided for the period was RMB320,192,824.68; and the amount of provision for bad debts recovered or reversed for the period was RMB8,176,813.40.

Important bad debt provisions recovered or reversed during the reporting period:

Entity	Amount reversed or recovered	Recovery method	Amount of bad debt provision accumulated before reversal or recovery
Debtor 1	3,268,265.50	Relevant amount recovered	3,268,265.50
Debtor 2	3,235,422.06	Relevant amount recovered	14,000,000.00
Debtor 3	604,839.38	Relevant amount recovered	11,394,682.23
Debtor 4	434,283.00	Relevant amount recovered	1,658,809.18
Debtor 5	339,865.53	Relevant amount recovered	339,865.53
Debtor 6	264,137.93	Relevant amount recovered	11,913,540.09
Debtor 7	30,000.00	Relevant amount recovered	30,000.00
Total	8,176,813.40	–	42,605,162.53

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.6 Other receivables (Continued)

2. Other receivables (Continued)

- (5) Other receivables actually written off during the reporting period

The amount of other receivables actually written off during the reporting period was RMB1,080,446.98.

Among them, the amount of other receivables actually written off during the reporting period is significant:

Entity	Nature	Amount written-off	Reason for write-off	Write-off procedures	Arising from connected transaction or not
Debtor 1	performance bond	500,000.00	Unrecoverable	to be approved by CHALIECO	No
Debtor 2	Imprest	219,531.71	Unrecoverable	to be approved by CHALIECO	No
Debtor 3	performance bond	174,628.95	Unrecoverable	to be approved by CHALIECO	No
Total	—	894,160.66			

**SECTION 10 FINANCIAL REPORT****5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)****5.6 Other receivables (Continued)****2. Other receivables (Continued)**

(6) Top five debtors of other receivables as at the end of the period

Entity	Nature	Closing balance	Aging	Percentage in total other receivable (%)	Balance of provision for bad debt
No. 1	Use funds of Party A and its related parties	418,096,722.65	4-5 years	11.43	302,817,790.00
No. 2	Security deposit and deposit	220,770,410.96	Within 1 year	6.04	1,103,852.05
No. 3	advance payment	199,730,082.26	Within 1 year	5.46	149,828,595.25
No. 4	advance payment	187,254,309.00	Within 1 year	5.12	173,458,180.96
No. 5	Use funds of Party A and its related parties	184,873,251.81	1-2 years	5.05	92,436,625.91
Total	–	1,210,724,776.68	–	33.10	719,645,044.17

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.7 Inventories

1. Classification of inventories

Category	Closing balance			Opening balance		
	Carrying amount	Provisions for Impairment	Book Value	Carrying amount	Provisions for Impairment	Book Value
Raw materials	244,299,808.26	4,544,449.42	239,755,358.84	257,987,456.51	11,131,097.07	246,856,359.44
Work-in-process	1,291,725,450.82	81,526,449.92	1,210,199,000.90	1,358,604,154.50	80,733,429.62	1,277,870,724.88
Inventories	1,191,238,468.19	432,183,824.39	759,054,643.80	1,618,332,523.98	106,496,831.80	1,511,835,692.18
Revolving materials and spare parts	19,462,055.72		19,462,055.72	83,918,878.73		83,918,878.73
Real estate development cost	288,798,305.34		288,798,305.34	260,666,296.20		260,666,296.20
Total	3,035,524,088.33	518,254,723.73	2,517,269,364.60	3,579,509,309.92	198,361,358.49	3,381,147,951.43

2. Additions and reductions to provision for impairment of inventories and contract performance cost

Category	Opening balance	Provision for the period	Reduction for the period		Closing balance
			Reversal	Write-off	
Raw materials	11,131,097.07	-2,597,799.35		3,988,848.30	4,544,449.42
Work-in-process	80,733,429.62	793,020.30			81,526,449.92
Inventories	106,496,831.80	330,733,130.45		5,046,137.86	432,183,824.39
Total	198,361,358.49	328,928,351.40		9,034,986.16	518,254,723.73



SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.8 Contract assets

1. Contract assets category

Item	Closing balance			Opening balance		
	Carrying amount	Provisions for impairment	Book Value	Carrying amount	Provisions for impairment	Book Value
Contract assets tested for provision for impairment on an individual basis	1,523,233,227.46	556,832,061.44	966,401,166.02	1,245,996,105.72	587,483,154.80	658,512,950.92
Contract assets tested for provision for impairment on a collective basis	6,727,504,286.87	123,859,177.34	6,603,645,109.53	6,721,574,514.51	99,751,357.93	6,621,823,156.58
Group 1: contract assets not delivered to customers for use	6,004,047,407.77	30,067,156.59	5,973,980,251.18	6,439,539,904.44	32,187,508.16	6,407,352,396.28
Group 2: contract assets delivered to customers for use	723,456,879.10	93,792,020.75	629,664,858.35	282,034,610.07	67,563,849.77	214,470,760.30
Total	8,250,737,514.33	680,691,238.78	7,570,046,275.55	7,967,570,620.23	687,234,512.73	7,280,336,107.50

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.8 Contract assets (Continued)

2. Provision for impairment for contract assets

- (1) Contract assets tested for provision for impairment on an individual basis as at the end of the period

Item	Carrying amount	Provisions for impairment	Expected credit loss rate(%)	Reason for the provision
Item 1	297,212,206.75	20,253,340.24	6.81	Impairment of assets was made based on project implementation and expected settlement
Item 2	168,771,192.86	151,894,073.57	90.00	Impairment of assets was made based on project implementation and expected settlement
Item 3	164,653,047.76	164,653,047.76	100.00	Impairment of assets was made based on project implementation and expected settlement
Item 4	51,048,686.11	5,104,868.61	10.00	Impairment of assets was made based on project implementation and expected settlement
Other items	789,363,394.39	214,926,731.26	27.23	Impairment of assets was made based on project implementation and expected settlement
Total	1,523,233,227.46	556,832,061.44	36.56	Impairment of assets was made based on project implementation and expected settlement

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.8 Contract assets (Continued)

2. Provision for impairment for contract assets (Continued)

(2) Contract assets tested for provision for impairment on a collective basis

Item	Closing balance			Opening balance		
	Carrying amount	Expected credit loss rate(%)	Provisions for impairment	Carrying amount	Expected credit loss rate(%)	Provisions for impairment
Group 1: contract assets not delivered to customers for use	6,004,047,407.77	0.50	30,067,156.59	6,439,539,904.44	0.50	32,187,508.16
Group 2: contract assets delivered to customers for use	723,456,879.10	12.96	93,792,020.75	282,034,610.07	23.96	67,563,849.77
Total	6,727,504,286.87	1.84	123,859,177.34	6,721,574,514.51	1.48	99,751,357.93

(3) Provision for impairment of contract assets accrued or reversed for the period

The amount of provision for impairment accrued for the period was RMB48,110,621.94; the amount of provision for impairment reversed for the period was RMB54,653,895.89.

3. Reclassification of impairment of contract assets

Item	As at the end of the period	As at the beginning of the year
Provision for impairment for contract assets	685,511,056.37	690,583,211.29
Less: Reclassification to other non-current assets	4,819,817.59	3,348,698.56
Closing balance	680,691,238.78	687,234,512.73

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.8 Contract assets (Continued)

4. Changes in provision for impairment of contract assets

Item	As at the end of the period	As at the beginning of the year
Opening balance	687,234,512.73	247,096,957.03
Provision for the year	48,110,621.94	469,130,882.07
Reversal for the year	-54,653,895.89	-28,918,326.37
Write-off for the year	-	-
Other changes	-	-75,000.00
Closing balance	680,691,238.78	687,234,512.73

5.9 Non-current assets due within a year

Item	Closing balance	Opening balance
Long-term receivables due within a year	571,394,600.59	754,276,838.04
Less: Provision for bad debt	57,294,343.77	26,983,862.10
Total	514,100,256.82	727,292,975.94

5.10 Other current-assets

Item	Closing balance	Opening balance
Deductible VAT input	460,899,473.47	575,119,572.80
Prepaid income tax	54,843,731.69	37,631,781.37
Others	485,251.59	-
Total	516,228,456.75	612,751,354.17

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.11 Long-term receivables

1. Particulars of long-term receivables

Item	Closing balance			Opening balance			Discount rate range
	Book balance	bad debt provision	Book value	Book balance	bad debt provision	Book value	
Repurchase payment under BT contract	226,930,235.95	57,299,096.34	169,631,139.61	688,204,575.95	35,784,193.22	652,420,382.73	87.00-100.00
Long-term receivables from customers	2,225,674,815.82	316,191,589.63	1,909,483,226.19	2,053,607,347.12	255,552,227.83	1,798,055,119.29	87.00-100.00
Total	2,452,605,051.77	373,490,685.97	2,079,114,365.80	2,741,811,923.07	291,336,421.05	2,450,475,502.02	-
Including: Current portion of long-term receivables due within one year	571,394,600.59	57,294,343.77	514,100,256.82	754,276,838.04	26,983,862.10	727,292,975.94	87.00-100.00
Presented in long-term receivables	1,881,210,451.18	316,196,342.20	1,565,014,108.98	1,987,535,085.03	264,352,558.95	1,723,182,526.08	-

Note: Pursuant to the engineering project contracting agreement or financing agreement signed between the Group and the proprietor or its related parties, the Company, in addition to general engineering construction service, provides a certain amount of financing to the proprietor and its related parties in support of their preliminary expenditures of designated construction projects. The above-mentioned financing will be repaid within a certain period of time.

2. Accrual of provision for bad debt of long-term receivables

Item	Closing balance	Opening balance
Opening balance	291,336,421.05	95,773,028.70
Provision for the year	82,439,266.56	78,113,392.35
Reversal for the year	-200,000.00	
Write-off for the year		
Other changes	-	117,450,000.00
Closing balance	373,575,687.61	291,336,421.05

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.12 Long-term equity investment

Investee	Increase/decrease							Provision for impairment closing balance
	Opening balance	Increase in investment	Decrease in investment	Investment gain or loss recognized under equity method	Adjustments to other comprehensive income	Other equity changes	Cash dividends or profit declared	
Provision for impairment closing balance								
I. Joint ventures								
Shanghai Fengtong Equity Investment Fund Partnership (Limited Partner)	8,686,248.22			-6,547.37				8,689,700.85
Zhongji Sunward Technology Co., Ltd.	51,263,914.75			1,995,665.67		581,489.37	-668,200.00	53,173,069.79
China Aluminum International Energy Saving Technology (Beijing) Co., Ltd.		1,000,000.00		-203,790.68		-559,917.55		236,291.77
Subtotal	60,160,162.97	1,000,000.00		1,785,527.62		21,571.82	-668,200.00	62,299,062.41

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.12 Long-term equity investment (Continued)

Investee	Increase/decrease							Provision for impairment
	Opening balance	Increase in investment	Decrease in investment	Investment gain or loss recognized under equity method	Adjustments to other comprehensive income	Other equity changes	Cash dividends or profit declared	
II. Associates								
Zhuzhou Tianqiao Crane Co., Ltd.	174,004,652.51			275,141.16			-1,077,338.66	173,202,455.01
Guangdong Qiaoli Chuangxiang Equity Investment Partnership (Limited Partner)	98,384,105.91	-69,939,355.29					1,555,249.38	
China Aluminum South Aluminum (Fujian) Aluminum Structure Technology Co., Ltd.	55,424,710.81			1,248,740.34			-2,210,000.00	54,463,451.15
Yunnan Ningyong Highway Co. Ltd.	30,000,000.00							30,000,000.00
Yunnan Linyun Highway Co. Ltd.	30,000,000.00			4,036.87				30,004,036.87
Guizhou Tongjie Construction Development Co., Ltd.	20,542,397.23			-1,273,995.14				19,268,402.09
China Construction Aluminum Advanced Material Henan Co., Ltd.	11,357,381.37		-10,625,723.40				-731,657.97	
Shaanxi Zhonghang Construction and Installation Co., Ltd.	11,546,820.07			-4,791,549.32				6,755,270.75
Chabao-Steering Intelligent Technology Co., Ltd.	5,763,055.92			-2,097,854.68				3,655,201.34
Others	344,136,632.48	3,300,000.00		17,424,035.30		275,862.07	-5,174,384.46	359,962,145.39
								48,218,575.53
Subtotal	781,149,756.30	3,300,000.00	-110,565,078.69	10,788,554.63		275,862.07	-8,461,723.12	48,218,575.53
Total	841,399,919.27	4,300,000.00	-110,565,078.69	12,574,082.25		297,433.89	-9,129,923.12	48,218,575.53

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.12 Long-term equity investment (Continued)

Notes:

1. Shanghai Fengtong Equity Investment Fund Partnership (Limited Partner)(hereafter "Shanghai Fengtong Fund") was established by Shanghai Ample Harvest Equity Investments Management Company Limited(hereafter "Harvest Equity") as a general partner in 2013. Harvest Equity made capital contribution of RMB10,000,000.00; The parent company of Harvest Equity, Harvest Capital Management Company Limited ("Harvest Capital") as a limited partner, made capital contribution of RMB2,000,000,000.00; the Company as a limited partner, made capital contribution of RMB40,000,000.00; Another limited partner made capital contribution of RMB50,000,000.00. During the year of 2014, the Company signed a series of supplemental contracts with other relevant parties and obtained jointly control over Shanghai Fengtong Fund because that the decision about the main activities of the partnership required the unanimous consent of the Company and the other parties. As agreed, Harvest Capital will withdraw its capital contribution within three years. During the three-year investment period of Harvest Capital, return on investment will be distributed in the following order: Shanghai Fengtong Fund will give priority to the payment of interest at 8.30% annualized rate of return to Harvest Capital, and then distribute expected return at 8.30% annualized rate to limited partners. Any residual return upon Harvest Capital's withdrawal within three years will be distributed to Harvest Equity and the Company on a 1:1 basis as to debt investments and on a 3:7 basis as to equity investments. If Shanghai Fengtong Fund fails to pay the principal and expected return to Harvest Capital as agreed above, the Company must immediately make up for the unpaid portion, upon which the Company has the right to receive liquidity support from Harvest Equity. As of the reporting date of this report, Shanghai Fengtong Fund has returned the capital contribution of Harvest Capital, and the Company has been discharged from the obligation to make up for any deficiency. Meanwhile, The Group is considering the withdrawal from Shanghai Fengtong Fund whereas the relevant work is in progress. The Company measures the long-term equity investment at the end of the period at the best estimate of the share of assets expected to be received upon its withdrawal from the partnership.
2. In February 2015, Zhongji Sunward Technology Co., Ltd. ("Zhongji Sunward") was jointly established by the Company and Sunward Intelligent Equipment Co., Ltd. The Company holds 49% equity and voting right in Zhongji Sunward. According to the articles of association of Zhongji Sunward, decisions on its major issues and activities require two-third majority approval at the board of directors and the general meeting, so the Company has joint control over Zhongji Sunward.
3. In October 2016, the Company and Fujian South Aluminum Engineering Corporation Limited ("Fujian South Aluminum") established China Aluminum South Aluminum (Fujian) Aluminum Structure Technology Co., Ltd. ("China Aluminum South Aluminum (Fujian)"). The Company paid in capital contribution of RMB50,000,000.00 in January 2018 and held 50% equity and voting right in it. In June 2020, Fujian South Aluminum contributed capital to China Aluminum South Aluminum by way of intangible assets investment. Upon capital contribution, its shareholding ratio reached 66.50%, and the Company's shareholding ratio and voting rights ratio declined to 33.50%, as a result, it was regarded as an associate.
4. Though holding less than 20% equity in Luoyang Hua Zhong Aluminum Co., Ltd., the Company has assigned one or more directors and has significant influence over it. So, Luoyang Hua Zhong Aluminum Co., Ltd. is regarded as an associate of the Company.
5. Mr. WANG Yonghong, Vice President of the Company, has been a director of Zhuzhou Tianqiao Crane Co., Ltd. since November 2019. As the Company can exert a significant influence on it, the Company shifts to the equity method to account for its equity investment.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.12 Long-term equity investment (Continued)

Notes: (Continued)

6. In 2019, the Company appointed Beijing Zhongtonghua Asset Evaluation Co., Ltd. to assess the market value of 19 patented technologies of its subsidiary Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy. The appraised value was RMB24 million (Appraisal Report No.: Zhong Tong Hua Ping Bao Zi (2019) No.020874). The Company made capital contribution with the above patented technologies to establish Chinalco Environmental Protection and Energy Saving Technology (Hunan) Co., Ltd. jointly with Chinalco Environmental Protection and Energy Saving Group. The Company holds 49% equity and voting rights and has significant influence, so it is an associate of the Company.
7. In 2019, the Company appointed Woxen (Beijing) International Asset Evaluation Co., Ltd. to assess market value of the intelligent information asset group of its subsidiary, China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd.. The appraised value was RMB11.0132 million (Appraisal Report No.: Woxen Ping Bao Zi [2019] No.1052). The Company made capital contribution with the above asset group to establish Chinalco Intelligent (Hangzhou) Safety Science Research Institute Co., Ltd. jointly with Chinalco Intelligent Technology Development Co., Ltd. The Company holds 49% equity and voting rights and has significant influence, so it is an associate of the Company.
8. In 2019, the Company appointed Beijing Zhongtonghua Asset Evaluation Co., Ltd. to assess the market value of some electronic equipment and intangible assets of its subsidiary Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy. The appraised value was RMB7.3507 million (Appraisal Report No.: Zhong Tong Hua Ping Bao Zi (2019) No.020967). The Company made capital contribution with the ownership over the above assets to establish Chinalco Environmental Protection and Ecological Technology (Hunan) Co., Ltd. jointly with Chinalco Environmental Protection and Energy Saving Group. The Company holds 49% equity and voting rights and has significant influence, so it is an associate of the Company.

The impact of non-monetary capital contribution in the above (6), (7) and (8) and inter-company unrealized profit involving associates was eliminated in proportion to our shareholding when adjusting profit or loss using the equity method.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.13 Other equity instrument investments

Item	Investment cost	Opening balance	Closing balance	Dividend income recognized for the period	Accumulated gains and losses for the period transferred from other comprehensive income to retained earnings	Reason for transfer
Guizhou Aerospace Wujiang Electromechanical Equipment Co., Ltd.	9,972,660.00	15,489,065.86	15,185,887.93			
Shandong Yixing Carbon New Materials Co., Ltd.	18,000,000.00	3,486,924.70	3,624,018.68			
Others	24,180,000.00	22,587,588.14	22,639,588.14	992,911.31		
Total	52,152,660.00	41,563,578.70	41,449,494.75	992,911.31		

5.14 Other non-current financial assets

Category	Closing balance	Opening balance
Subordinated shares in China Securities – CHALIECO 2019 Accounts Receivable ABS Plan	18,900,000.00	18,900,000.00
Total	18,900,000.00	18,900,000.00

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.15 Investment property

1. Investment property measured at cost

Item	Housings and buildings	Land use right	Total
I. Original value			
1. Opening balance	432,857,256.65	181,822,148.79	614,679,405.44
2. Additions for the period	59,849,974.00		59,849,974.00
(1) Outsourcing			
(2) Transferred from inventories, fixed assets or CIP			
(3) Other additions	59,849,974.00		59,849,974.00
3. Reductions for the period	2,636,128.00		2,636,128.00
(1) Disposal			
(2) Transferred out	2,636,128.00		2,636,128.00
4. Closing balance	490,071,102.65	181,822,148.79	671,893,251.44
II. Accumulated depreciation and accumulated amortization			
1. Opening balance	81,148,643.99	30,784,754.84	111,933,398.83
2. Additions for the period	12,492,626.78	4,460,104.30	16,952,731.08
(1) Provision or amortization	12,492,626.78	4,460,104.30	16,952,731.08
(2) Other additions			
3. Reductions for the period	791,444.55		791,444.55
(1) Disposal			
(2) Transferred out	791,444.55		791,444.55
4. Closing balance	92,849,826.22	35,244,859.14	128,094,685.36
III. Provision for impairment			
1. Opening balance			
2. Additions for the period			
3. Reductions for the period			
4. Closing balance			
IV. Book value			
1. As at end of the period	397,221,276.43	146,577,289.65	543,798,566.08
2. As at beginning of the period	351,708,612.66	151,037,393.95	502,746,006.61

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.16 Fixed assets

Category	Closing balance	Opening balance
Fixed assets	2,436,428,471.16	2,322,678,068.49
Fixed assets pending disposal		
Less: Provision for impairment	3,487,182.81	1,058,216.90
Total	2,432,941,288.35	2,321,619,851.59

1. Fixed assets

(1) Particulars of fixed assets

Item	Housings and buildings	Machinery equipment	Transportation vehicles	Office equipment and others	Total
I. Original value					
1. Opening balance	2,571,757,274.03	872,713,731.99	257,874,831.88	394,609,774.09	4,096,955,611.99
2. Additions for the period	253,997,155.56	14,512,414.97	9,941,095.21	19,194,100.46	297,644,766.20
(1) Additions	181,136.89	9,967,835.86	9,628,480.21	16,064,100.39	35,841,553.35
(2) Transferred from CIP	213,065,409.00	4,544,579.11		3,009,012.27	220,619,000.38
(3) Other additions	40,750,609.67		312,615.00	120,987.80	41,184,212.47
3. Reductions for the period	34,514,436.03	45,532,095.17	8,151,554.83	7,573,912.67	95,771,998.70
(1) Disposal or scraping	34,514,436.03	45,198,335.44	7,522,785.98	7,237,636.68	94,473,194.13
(2) Disposal of Subsidiaries					
(3) Other		333,759.73	628,768.85	336,275.99	1,298,804.57
4. Closing balance	2,791,239,993.56	841,694,051.79	259,664,372.26	406,229,961.88	4,298,828,379.49

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.16 Fixed assets (Continued)

1. Fixed assets (Continued)

(1) Particulars of fixed assets (Continued)

Item	Housings and buildings	Machinery equipment	Transportation vehicles	Office equipment and others	Total
II. Accumulated depreciation					
1. Opening balance	682,977,138.19	629,472,328.33	188,681,040.55	273,147,036.43	1,774,277,543.50
2. Additions for the period	83,989,262.93	38,122,455.90	17,021,065.49	30,092,233.15	169,225,017.47
(1) Provision	83,989,262.93	38,122,455.90	16,930,719.37	29,724,718.93	168,767,157.13
(2) Other additions			90,346.12	367,514.22	457,860.34
3. Reductions for the period	24,185,329.05	41,873,978.37	7,909,629.18	7,133,716.04	81,102,652.64
(1) Disposal or scraping	23,643,244.19	41,873,978.37	7,522,298.81	6,745,580.92	79,785,102.29
(2) Disposal of Subsidiaries					
(3) Other	542,084.86		387,330.37	388,135.12	1,317,550.35
4. Closing balance	742,781,072.07	625,720,805.86	197,792,476.86	296,105,553.54	1,862,399,908.33
III. Provision for impairment					
1. Opening balance	231,752.96	685,113.94	141,350.00		1,058,216.90
2. Additions for the period	3,114,079.85				3,114,079.85
(1) Provision	3,114,079.85				3,114,079.85
(2) Other					
3. Reductions for the period		685,113.94			685,113.94
(1) Disposal or scraping		685,113.94			685,113.94
(2) Other					
4. Closing balance	3,345,832.81		141,350.00		3,487,182.81
IV. Book value					
1. As at end of the period	2,045,113,088.68	215,973,245.93	61,730,545.40	110,124,408.34	2,432,941,288.35
2. As at beginning of the period	1,888,548,382.88	242,556,289.72	69,052,441.33	121,462,737.66	2,321,619,851.59

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.16 Fixed assets (Continued)

1. Fixed assets (Continued)

- (2) Fixed asset for which the title certificate has not been obtained

Item	Book value	Reasons for not obtaining the title certificate
Housings and buildings	259,034,681.52	In progress
Transportation vehicles	10,858.30	In progress
Total	259,045,539.82	–

- (2) As of December 31, 2021, temporarily idle fixed assets

Category	Original value	Accumulated depreciation	Provision for impairment	Book value	Remarks
Housings and buildings	3,202,491.09	2,395,730.49		806,760.60	
Machinery equipment	4,999,692.42	4,032,634.43		967,057.99	
Transportation vehicles	2,591,057.78	1,781,015.42		810,042.36	
Office equipment and others	1,632,355.98	1,000,241.92		632,114.06	
Total	12,425,597.27	9,209,622.26		3,215,975.01	

- (3) Fixed assets fully depreciated but still in use

Category	Original value	Accumulated depreciation	Provision for impairment	Book value
Housings and buildings	86,948,068.29	81,233,499.15	231,752.96	5,482,816.18
Machinery equipment	328,659,936.56	308,263,312.84		20,396,623.72
Transportation vehicles	86,106,141.00	75,670,472.68		10,435,668.32
Office equipment and others	125,744,008.00	116,814,350.80	334,400.00	8,595,257.20
Total	627,458,153.85	581,981,635.47	566,152.96	44,910,365.42



SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.17 Construction in progress

Category	Closing balance	Opening balance
CIP items Construction materials Less: Provision for impairment	171,343,709.16	324,078,307.65
Total	171,343,709.16	324,078,307.65

1. CIP items

(1) Basic information of CIP items

Item	Closing balance			Opening balance		
	Carrying amount	Provision for impairment	Book value	Carrying amount	Provision for impairment	Book value
Yue Liang Wan Health Project	131,207,116.60		131,207,116.60	300,351,320.88		300,351,320.88
Office renovation for Sixth Metallurgical Company				9,962,639.36		9,962,639.36
Others	40,136,592.56		40,136,592.56	13,764,347.41		13,764,347.41
Total	171,343,709.16		171,343,709.16	324,078,307.65		324,078,307.65

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.17 Construction in progress (Continued)

1. CIP items (Continued)

(2) Significant changes in CIP

Item	Item Budget	Opening balance	Additions	Transferred to fixed assets	Transfer to intangible assets	Other reductions	Closing balance
Yue Liang Wan Health Project	498,000,000.00	300,351,320.88	37,695,507.84	204,624,674.62	2,215,037.50		131,207,116.60
Office renovation for Sixth Metallurgical Company	10,000,000.00	9,962,639.36	1,439,937.48	11,402,576.84			
Total	508,000,000.00	310,313,960.24	39,135,445.32	216,027,251.46	2,215,037.50		131,207,116.60

Item	Percentage of project investment to budget (%)	Project progress (%)	Accumulated capitalized interest	Including: interest capitalized for the year	Capitalization rate of interest for the year (%)	Source of funds
Yue Liang Wan Health Project	68	88	10,941,252.27	10,941,252.27	5.64	Funded by the Company
Office renovation for Sixth Metallurgical Company	100	100				Funded by the Company
Total	–	–	10,941,252.27	10,941,252.27	–	–

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.18 Right-of-use assets

Item	Housings and buildings	Machinery equipment	Total
I. Original value			
1. Opening balance	29,331,967.34	516,320.50	29,848,287.84
2. Additions for the period	3,868,835.43		3,868,835.43
(1) New lease	3,868,835.43		3,868,835.43
3. Reductions for the period	9,880,035.88		9,880,035.88
(1) Disposal	9,880,035.88		9,880,035.88
4. Closing balance	23,320,766.89	516,320.50	23,837,087.39
II. Accumulated depreciation			
1. Opening balance	16,943,204.51	404,369.58	17,347,574.09
2. Additions for the period	5,380,034.19	33,697.47	5,413,731.66
(1) Provision	5,380,034.19	33,697.47	5,413,731.66
3. Reductions for the period	6,302,252.29		6,302,252.29
(1) Disposal	6,302,252.29		6,302,252.29
4. Closing balance	16,020,986.41	438,067.05	16,459,053.46
III. Provision for impairment			
1. Opening balance			
2. Additions for the period			
3. Reductions for the period			
4. Closing balance			
IV. Book value			
1. As at end of the period	7,299,780.48	78,253.45	7,378,033.93
2. As at beginning of the period	12,388,762.83	111,950.92	12,500,713.75

Note: The Company charged short-term lease expense and low-value asset lease expense totaling RMB29,484,677.40 to profit or loss.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.19 Intangible assets

1. Particulars of intangible assets

Item	Land use right	Patent Right	Software	Others	Total
I. Original value					
1. Opening balance	833,212,698.32	260,852,719.97	144,259,180.64	482,171,181.35	1,720,495,780.28
2. Additions for the period	2,215,037.50	9,060.00	6,767,227.17	81,040,489.52	90,031,814.19
(1) Additions		9,060.00	4,511,405.05		4,520,465.05
(2) In-house R&D			2,255,822.12		2,255,822.12
(3) Other additions	2,215,037.50			81,040,489.52	83,255,527.02
3. Reductions for the period	1,720,860.01	3,268,685.56	496,918.90	4,266,358.87	9,752,823.34
(1) Disposal	1,720,860.01	3,268,685.56			4,989,545.57
(2) Invalid and derecognized					
(3) Other			496,918.90	4,266,358.87	4,763,277.77
4. Closing balance	833,706,875.81	257,593,094.41	150,529,488.91	558,945,312.00	1,800,774,771.13
II. Accumulated amortization					
1. Opening balance	193,921,188.79	253,001,163.01	106,736,542.57	4,561,118.23	558,220,012.60
2. Additions for the period	19,042,510.87	1,685,360.02	8,115,715.28	33,858.36	28,877,444.53
(1) Provision	19,042,510.87	1,685,360.02	8,115,715.28	33,858.36	28,877,444.53
(2) Arising from business combination					
(3) Other additions					
3. Reductions for the period	321,288.07	1,840,400.88	496,918.90	4,266,358.87	6,924,966.72
(1) Disposal	321,288.07	1,840,400.88			2,161,688.95
(2) Invalid and derecognized					
(3) Other			496,918.90	4,266,358.87	4,763,277.77
4. Closing balance	212,642,411.59	252,846,122.15	114,355,338.95	328,617.72	580,172,490.41
III. Provision for impairment					
1. Opening balance					
2. Additions for the period					
3. Reductions for the period					
4. Closing balance					
IV. Book value					
1. As at end of the period	621,064,464.22	4,746,972.26	36,174,149.96	558,616,694.28	1,220,602,280.72
2. As at beginning of the period	639,291,509.53	7,851,556.96	37,522,638.07	477,610,063.12	1,162,275,767.68

**SECTION 10 FINANCIAL REPORT****5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)****5.20 Development cost**

Item	Opening balance	Additions		Reductions		Closing balance
		In-house development cost	Others	Charged to profit or loss	Recognized as intangible assets	
Spare product and spare part service platform	2,013,685.27	242,136.85			2,255,822.12	
Total	2,013,685.27	242,136.85			2,255,822.12	

5.21 Long-term unamortized expenses

Category	Opening balance	Additions	Amortization	Other Reductions	Closing balance
Rental cost of the underground garage of Twelfth Metallurgical Company	9,499,155.67		249,977.76		9,249,177.91
Others	40,082,647.71	55,925,080.66	53,004,033.29		43,003,695.08
Total	49,581,803.38	55,925,080.66	53,254,011.05		52,252,872.99

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.22 Deferred tax assets and deferred tax liabilities

1. Deferred tax assets and deferred tax liabilities, not on a netting basis

Item	Closing balance		Opening balance	
	Deferred Tax Assets/ Liabilities	Deductible/ taxable temporary differences	Deferred Tax Assets/ Liabilities	Deductible/ taxable temporary differences
Deferred tax assets:				
Retirement and termination benefits	103,877,850.00	544,760,150.00	119,083,235.50	623,424,000.00
Asset impairment provisions	783,596,137.97	4,126,725,073.67	706,085,475.79	4,214,874,081.82
Deductible loss	97,023,181.63	562,876,460.30	75,504,595.63	363,329,448.47
Changes in fair value of other equity instrument investment	2,387,458.97	15,916,393.19	2,415,823.07	16,105,487.16
Changes in the fair value of trading financial instruments and derivative financial instruments	2,868,857.14	19,125,714.27	2,865,105.00	19,100,700.00
Others	15,621,950.19	87,732,521.85	46,017,240.71	303,096,155.11
Subtotal	1,005,375,435.90	5,357,136,313.28	951,971,475.70	5,539,929,872.56
Deferred tax liabilities:				
Appreciation on asset evaluation	63,896,905.13	318,303,670.84	69,076,901.67	350,702,956.20
Changes in fair value of other equity instrument investment	781,984.20	5,213,228.00	827,460.89	5,516,405.86
Others	49,675,380.23	496,753,802.30	49,675,380.23	496,753,802.30
Subtotal	114,354,269.56	820,270,701.14	119,579,742.79	852,973,164.36

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.22 Deferred tax assets and deferred tax liabilities (Continued)

2. Deferred tax assets and deferred tax liabilities, on a netting basis (Continued)

Item	Netting of deferred tax assets or liabilities as at end of the year	Deferred tax assets or liabilities as at end of the year, on a netting basis	Netting of deferred tax assets or liabilities as at beginning of the year	Deferred tax assets or liabilities as at beginning of the year, on a netting basis
Deferred tax assets	40,742,683.63	964,632,752.27	44,894,107.85	907,077,367.85
Deferred tax liabilities	40,742,683.63	73,611,585.93	44,894,107.85	74,685,634.94

3. Breakdown of unrecognized deferred tax assets

Item	Closing balance	Opening balance
Deductible temporary difference	765,281,437.96	254,400,105.84
Deductible loss	4,444,114,999.29	2,733,328,245.99
Total	5,209,396,437.25	2,987,728,351.83

4. Deductible loss on unrecognized deferred tax assets will be due in:

Year	Closing balance	Opening balance	Remarks
2021			
2022	10,011,202.67	32,061,940.20	
2023	144,325,537.62	259,261,223.54	
2024	632,535,457.62	632,535,457.62	
2025	1,809,469,624.63	1,809,469,624.63	
2026	1,847,773,176.75		
Total	4,444,114,999.29	2,733,328,245.99	

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.23 Other non-current assets

Item	Closing balance	Opening balance
Investment in construction of Highway PPP project	11,734,754,908.18	6,735,604,914.95
Prepayment for property purchase	54,581,060.00	54,581,060.00
Revolving materials	355,312,165.35	207,382,259.08
Assets pending disposal	37,801,673.20	
VAT input deductible one year later	773,422,815.30	346,683,661.44
Others	82,299.85	130,469.16
Long-term contract asset	741,774,024.28	669,739,710.04
Less: provision for bad debt	4,819,817.59	3,348,698.56
Subtotal	13,692,909,128.57	8,010,773,376.11
Including: amount due within one year		
Total	13,692,909,128.57	8,010,773,376.11

Notes:

1. As of 31 December 2021, the Company consolidated the financial statements of a consolidated subsidiary, Yunnan Miyu Expressway Investment and Development Co., Ltd., and the highway project operated by such subsidiary in PPP form remained in a construction and investment stage.
2. As of 31 December 2021,, the Company had made prepayment for property purchase of RMB54,581,060.00 to Shandong Qianhong Industrial Park.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.24 Short-term loans

Terms of Loan	Closing balance	Opening balance
Bank loans		
Pledge loans	140,000,000.00	175,719,242.10
Mortgage loans		20,000,000.00
Guarantee loans	188,000,000.00	1,438,472,300.00
Credit loans	1,838,000,000.00	3,105,825,714.28
Subtotal	2,166,000,000.00	4,740,017,256.38
Loans from non-bank financial institutions		
Intra-group entrusted loans	3,379,689,365.10	1,325,557,841.89
Subtotal	5,545,689,365.10	6,065,575,098.27
Interest expense accrued prior to the contractual interest payment date	5,196,311.15	12,370,479.64
Total	5,550,885,676.25	6,077,945,577.91

Notes:

- As of 31 December 2021, pledge loans from banks amounted to RMB140,000,000.00 with pledge over accounts receivable of the Company of RMB140,000,000.00.
- As of 31 December 2021, guarantee loans from banks amounted to RMB188,000,000.00, for which the Company and its subsidiaries have provided joint liability guarantee;
- The Company received pledged loan of RMB2,457,474.93 from Shenzhen Bailinhui Commercial Factoring Co., Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB2,457,474.93; pledged loan of RMB1,908,750.00 from Shenzhen Qianhai Yifang Commercial Factoring Co., Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB1,908,750.00; pledged loan of RMB3,158,677.49 from Shenzhen Qianhai Lianjie Commercial Factoring Co., Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB3,158,677.49.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.25 Derivative financial liabilities

Category	Closing balance	Opening balance
Currency swap		19,100,700.00
Total		19,100,700.00

5.26 Notes receivable

Item	Closing balance	Opening balance
Bank's acceptance bill	2,584,647,732.11	1,633,003,492.69
Commercial acceptance bill	197,803,120.33	113,592,687.65
Total	2,782,450,852.44	1,746,596,180.34

5.27 Accounts payable

1. By aging

Item	Closing balance	Opening balance
Within 1 year (inclusive)	9,304,660,738.28	8,957,343,937.88
Over 1 year	3,769,883,496.85	4,807,093,487.43
Total	13,074,544,235.13	13,764,437,425.31

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.27 Accounts payable (Continued)

2. Significant accounts payable aged over 1 year

Creditor	Closing balance	Reason of non-payment
Creditor 1	152,938,180.50	Payment conditions not satisfied yet
Creditor 2	42,147,553.11	Payment conditions not satisfied yet
Creditor 3	41,239,142.86	Payment conditions not satisfied yet
Creditor 4	32,024,254.75	Payment conditions not satisfied yet
Creditor 5	29,314,876.59	Payment conditions not satisfied yet
Creditor 6	25,708,136.98	Payment conditions not satisfied yet
Creditor 7	22,417,547.85	Payment conditions not satisfied yet
Total	345,789,692.64	—

5.28 Contract liabilities

Item	Closing balance	Opening balance
Within 1 year (inclusive)	2,916,553,337.67	2,556,212,319.45
Over 1 year	338,020,030.42	104,997,460.20
Total	3,254,573,368.09	2,661,209,779.65

Note: The income of RMB1,340,180,771.09 recognized for the period was included in the book value of contract liabilities at the beginning of the period.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.29 Employee compensation payable

1. Employee compensation payable by category

Item	Opening balance	Additions for the period	Reduction for the period	Closing balance
Short-term compensation	112,648,408.96	2,025,804,196.97	2,027,817,126.81	110,635,479.12
Post-employment benefits				
defined contribution plans	9,254,833.49	261,284,944.87	260,894,637.90	9,645,140.46
Termination benefits	71,540,000.00	55,871,477.33	63,030,477.33	64,381,000.00
Other benefits due within one year		950.00	950.00	
Total	193,443,242.45	2,342,961,569.17	2,351,743,192.04	184,661,619.58

2. Short-term employee compensation

Item	Opening balance	Additions for the period	Reductions for the period	Closing balance
Salary, bonus, allowance and subsidy	78,597,665.10	1,461,814,571.39	1,463,205,482.31	77,206,754.18
Employee welfare		73,034,046.16	73,034,046.16	
Contribution to social security funds	4,474,305.55	133,816,531.71	132,885,434.40	5,405,402.86
Including: Medical insurance fund	3,925,116.90	119,969,515.52	119,231,967.70	4,662,664.72
Work injury insurance fund	352,398.25	12,109,673.42	12,110,655.83	351,415.84
Maternity insurance fund	196,790.40	1,737,342.77	1,542,810.87	391,322.30
Housing provident fund	3,713,190.88	154,406,273.92	152,843,462.41	5,276,002.39
Trade union fee and employee education fee	19,302,298.79	37,246,919.97	37,918,202.91	18,631,015.85
non-monetary benefits		37,514,584.07	37,514,584.07	
Other short-term compensation	6,560,948.64	127,971,269.75	130,415,914.55	4,116,303.84
Total	112,648,408.96	2,025,804,196.97	2,027,817,126.81	110,635,479.12

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.29 Employee compensation payable (Continued)

3. Defined contribution plan

Item	Opening balance	Additions for the period	Reductions for the period	Closing balance
Basic pension fund	7,580,439.45	206,690,720.22	205,939,785.73	8,331,373.94
Unemployment insurance fund	997,705.89	9,298,384.03	9,383,012.30	913,077.62
Corporate annuity plan	676,688.15	45,295,840.62	45,571,839.87	400,688.90
Total	9,254,833.49	261,284,944.87	260,894,637.90	9,645,140.46

5.30 Taxes payable

Tax	Closing balance	Opening balance
VAT	103,318,646.83	86,405,542.25
Corporate income tax	125,650,311.32	121,288,580.26
Urban maintenance and construction tax	7,846,004.23	8,932,553.67
House property tax	1,666,780.02	1,551,772.72
Land use tax	1,877,189.55	1,511,035.28
Land appreciation tax	1,790,214.91	1,811,745.46
Individual income tax	9,446,281.20	7,127,230.79
Educational surcharges	5,070,888.86	5,884,753.90
Others	7,505,930.52	8,208,585.35
Total	264,172,247.44	242,721,799.68

5.31 Other payables

Category	Closing balance	Opening balance
Interest payables		
Dividends payables		
Other payables	2,394,199,444.91	2,229,483,821.61
Total	2,394,199,444.91	2,229,483,821.61

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.31 Other payables (Continued)

1. Other payables

(1) Payables by nature

Nature	Closing balance	Opening balance
Retention funds and deposits payable	1,333,525,386.08	1,093,831,970.42
Current payment	653,040,858.15	182,105,330.72
Temporary payment	289,106,394.99	557,387,134.82
Others	118,526,805.69	396,159,385.65
Total	2,394,199,444.91	2,229,483,821.61

(2) Description of significant other payables aged over 1 year

Entity	Closing balance	Reason of non-payment
Creditor 1	41,465,520.00	Not due yet
Creditor 2	35,257,932.54	Not due yet
Creditor 3	33,987,500.00	Not due yet
Creditor 4	23,425,466.52	Not due yet
Creditor 5	16,734,000.00	Not due yet
Creditor 6	12,783,177.96	Not due yet
Creditor 7	11,144,692.76	Not due yet
Total	174,798,289.78	—

**SECTION 10 FINANCIAL REPORT****5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)****5.32 Non-current liabilities due within one year**

Item	Closing balance	Opening balance
Long-term borrowings due within one year	499,443,085.46	459,963,549.18
Interest expense unpaid but accrued on long-term loans due within one year	7,092,438.07	10,574,378.62
Debentures payable due within one year		
Lease obligations due within one year	3,284,911.37	6,512,862.21
Total	509,820,434.90	477,050,790.01

5.33 Other current liabilities

Item	Closing balance	Opening balance
Pending VAT output	1,607,438,830.07	1,496,304,508.52
Short-term debentures payable		1,002,279,452.05
Liabilities on continuing involvement in ABS	18,900,000.00	18,900,000.00
Total	1,626,338,830.07	2,517,483,960.57

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.33 Other current liabilities (continued)

Changes in short-term debentures payable

Bond	Face value	Issuance date	Term (days)	Issued amount
20 Zhong Lv Guo Gong SCP008	100.00	2020-12-09	32	1,000,000,000.00
21 Zhong Lv Guo Gong SCP001	100.00	2021-01-08	30	1,000,000,000.00
Total				2,000,000,000.00

Bond	Opening balance	Issued during the period	Interests accrued on face value	Amortization of premium or discount	Repaid during the period	Closing balance
20 Zhong Lv Guo Gong SCP008	1,002,279,452.05				1,002,279,452.05	
21 Zhong Lv Guo Gong SCP001		1,000,000,000.00	2,301,369.86		1,002,301,369.86	
Total	1,002,279,452.05	1,000,000,000.00	2,301,369.86		2,004,580,821.91	

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.34 Long-term borrowings

1. Long-term borrowings by category

Terms of Loan	Closing balance	Opening balance
Pledge loans		
Mortgage loans		
Guarantee loans	421,800,000.00	1,200,800,000.00
Credit loans	11,935,304,583.61	7,346,905,995.96
Subtotal	12,357,104,583.61	8,547,705,995.96
Loans from non-bank financial institutions	164,543,085.46	140,963,549.18
inter-company loan		
Less: Long-term borrowings due within one year	499,443,085.46	459,963,549.18
Total	12,022,204,583.61	8,228,705,995.96

Notes:

- As of 31 December 2021, guaranteed borrowings from banks amounted to RMB421,800,000.00, for which the Company and its subsidiaries have provided joint liability guarantee.
- As of 31 December 2021, the Company received pledged borrowings of RMB3,815,226.61 from Shenzhen Qianhai Lianjie Commercial Factoring Co., Ltd. (a non-bank financial institution) with pledge over accounts receivable of RMB3,815,226.61; pledged borrowings of RMB70,522.47 from Shenzhen Qianhai Pingyu Commercial Factoring Co. Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB70,522.47; pledged borrowings of RMB170,682.72 from Shenzhen Qianhai Pingyu Commercial Factoring Co. Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB170,682.72; pledged borrowings of RMB48,785.63 from Shenzhen Qianhai Pingyu Commercial Factoring Co. Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB48,785.63; pledged borrowings of RMB1,244,886.38 from Shenzhen Qianhai Liansu Commercial Factoring Co. Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB1,244,886.38; pledged borrowings of RMB3,810,684.45 from Shenzhen Qianhai Liansu Commercial Factoring Co. Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB3,810,684.45; pledged borrowings of RMB925,000.00 from Shenzhen Qianhai Lianjie Commercial Factoring Co. Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB925,000.00; pledged borrowings of RMB1,045,250.00 from Shenzhen Qianhai Lianjie Commercial Factoring Co. Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB1,045,250.00; pledged borrowings of RMB185,000.00 from Shenzhen Qianhai Lianjie Commercial Factoring Co. Ltd. (a non-bank financial institution), with pledge over accounts receivable of RMB185,000.00;

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.34 Long-term borrowings (continued)

2. Payment term of long-term borrowings due over 1 year

Payment term	Closing balance	Opening balance
Between 1 to 2 years	3,914,019,329.16	1,044,200,000.00
Between 2 to 5 years	2,196,200,000.00	4,453,400,000.00
Over 5 years	5,911,985,254.45	2,731,105,995.96
Total	12,022,204,583.61	8,228,705,995.96

5.35 Lease liabilities

Item	Closing balance	Opening balance
Lease payment	9,165,913.24	11,962,772.70
Less: unrecognized financing expense	2,543,453.24	924,260.19
Less: Lease obligations due within one year	3,284,911.37	6,512,862.21
Total	3,337,548.63	4,525,650.30

5.36 Long-term payables

Nature	Closing balance	Opening balance
Long-term payables		
Special payables	1,761,720.17	2,602,600.17
Total	1,761,720.17	2,602,600.17

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.36 Long-term payables (continued)

Including: special payables

Item	Opening balance	Additions for the period	Reduction for the period	Closing balance	Reasons for the amount incurred
Research funding for research and development of prototype of furnace-building robot for aluminum electrolysis cell lining	1,046,302.95			1,046,302.95	
Others	1,556,297.22		840,880.00	715,417.22	
Total	2,602,600.17		840,880.00	1,761,720.17	

5.37 Long-term employee compensation payable

1. Long-term employee compensation payable

Category	Closing balance	Opening balance
Post-employment benefits – net liabilities under defined benefit plan	530,909,200.00	562,433,200.00
Termination benefits	47,762,950.00	60,990,800.00
Other long-term employee compensation payable		
Subtotal	578,672,150.00	623,424,000.00
Less: portion due within one year	64,381,000.00	71,540,000.00
Total	514,291,150.00	551,884,000.00

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.37 Long-term employee compensation payable (continued)

2. Changes in defined benefit plan

① Present value of obligations of DBP

Item	Amount incurred for the current period	Amount incurred for the previous period
I. Opening balance	623,424,000.00	679,935,000.00
II. Defined benefit cost included in current profit and loss	20,278,549.68	23,818,976.30
1. Current service cost	1,185,549.68	1,330,698.99
2. Previous service cost	3,121,000.00	5,551,277.31
3. Actuarial gain (Losses are represented by “-”)	—	—
4. Net interest	19,097,000.00	19,168,000.00
5. Gains excluded from other comprehensive income (Losses are represented by “-”)	-3,125,000.00	-2,231,000.00
III. Defined benefit costs included in other comprehensive income	6,056,000.00	2,924,000.00
1. Actuarial gain (Losses are represented by “-”)	6,056,000.00	2,924,000.00
IV. Other changes	-71,086,399.68	-83,253,976.30
1. consideration paid at settlement		
2. benefits paid	-71,086,399.68	-83,253,976.30
V. Closing balance	578,672,150.00	623,424,000.00

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.37 Long-term employee compensation payable (continued)

2. Changes in defined benefit plan (continued)

② DBP net liabilities (net assets)

Item	Amount incurred for the current period	Amount incurred for the previous period
I. Opening balance	623,424,000.00	679,935,000.00
II. Net interest	19,097,000.00	19,168,000.00
III. benefits paid	-71,086,399.68	-83,253,976.30
IV. Actuarial loss (gain)	2,931,000.00	693,000.00
V. Previous service cost	3,121,000.00	5,551,277.31
VI. Current service cost	1,185,549.68	1,330,698.99
VII. Closing balance	578,672,150.00	623,424,000.00

Note: The above obligations were determined based on actuarial valuations performed by an independent qualified actuarial firm, Towers Watson Consulting Company Limited, using the projected unit credit actuarial cost method.

The material actuarial assumptions used in valuing these obligations are as follows:

(i) Discount rate adopted (per annum)

Item	31 December 2021	31 December 2020
Discount rate	2.75%	3.25%

(ii) Mortality: Average life expectancy of residents in the PRC;

(iii) Average medical expense increase rate: 8%;

(iv) Annual growth rate of pension benefits for beneficiaries: 4.5%;

(v) Medical costs paid to early retirees are assumed to continue until the death of the retirees.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.38 Deferred income (continued)

1. Deferred income presented by category

Item	Opening balance	Additions for the period	Reduction for the period	Closing balance	Reasons for the amount incurred
Government subsidy	60,056,033.34	1,100,000.00	5,156,033.34	56,000,000.00	Benefiting period has not expired
Total	60,056,033.34	1,100,000.00	5,156,033.34	56,000,000.00	–

2. Particulars of government subsidies

Item	Opening balance	Additional subsidies for the period	Amount included in profit and loss for the period	Other changes	Closing balance	Related to assets/income
Government subsidy for overall relocation of Shandong project	16,000,000.00				16,000,000.00	Related to assets
Urban roads in Tongchuan New District + Comprehensive packaged PPP project of underground comprehensive pipelines	40,000,000.00				40,000,000.00	Related to assets
Others	4,056,033.34	1,100,000.00	5,156,033.34			
Total	60,056,033.34	1,100,000.00	5,156,033.34		56,000,000.00	–

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.39 Share capital

Item	Opening balance	New shares issued	Increase/Decrease (+, -)			Subtotal	Closing balance
			Bonus shares	Shares converted from provident fund	Others		
Total number of shares	2,959,066,667.00						2,959,066,667.00
China Aluminum Group Limited	2,176,758,534.00						2,176,758,534.00
Luoyang Engineering & Research Institute for Nonferrous Metals Processing	86,925,466.00						86,925,466.00
National Council for Social Security Fund, PRC	36,316,000.00						36,316,000.00
Holders of overseas listed H shares	363,160,000.00						363,160,000.00
Public ordinary shareholders	295,906,667.00						295,906,667.00

5.40 Other equity instruments

Outstanding financial instruments	Opening balance		Additions for the period		Reductions for the period		As at the end of the period	
	Number	Book value	Number	Book value	Number	Book value	Number	Book value
19 Zhong Gong Y1 Renewable Corporate Bond	15,000,000.00	1,498,584,905.65					15,000,000.00	1,498,584,905.65
Industrial Bank Renewable Trust Loan	1,000,000,000.00	1,000,000,000.00					1,000,000,000.00	1,000,000,000.00
Total	1,015,000,000.00	2,498,584,905.65					1,015,000,000.00	2,498,584,905.65

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.41 Capital reserve

Category	Opening balance	Additions for the period	Reduction for the period	Closing balance
I. capital premium	856,680,337.89			856,680,337.89
II. Other capital reserve	18,819,586.75	297,433.89		19,117,020.64
Total	875,499,924.64	297,433.89	–	875,797,358.53

Note: Capital reserve – other capital reserve recorded an increase of RMB297,433.89 for the year. Specifically, ① China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd., a subsidiary of the Company, recognized a change in the other equity interests of its associate Chinalco Environmental Protection and Ecological Technology (Hunan) Co., Ltd. by using the equity method, resulting in an increase of RMB275,862.07 in capital reserve – other capital reserve; ② China Aluminum International Aluminum Application Engineering Co., Ltd., a subsidiary of the Company, recognized a change in the other equity interests of its associate China Aluminum International Energy Saving Technology (Beijing) Co., Ltd. by using the equity method, resulting in an decrease of RMB559,917.55 in capital reserve – other capital reserve; ③ Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy, a subsidiary of the Company, recognized a change in the other equity interests of its joint venture Zhongji Sunward Technology Co., Ltd. by using the equity method, resulting in an increase of RMB581,489.37 in capital reserve – other capital reserve.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.42 Other comprehensive income

Item	Opening balance	OCI for the year, pretax	Less: recorded in OCI in earlier period but transferred to P&L for the year	Amount incurred for the current period Less: recorded in OCI in earlier period but transferred to retained earnings	Less: income tax	Amount after tax attributable to the parent company	Amount after tax attributable to minority shareholders	Closing balance
I. OCI not to be reclassified to P&L	89,583,819.66	-6,170,083.95			-936,712.59	-4,985,383.18	-247,988.18	84,598,436.48
Including: Change on DBP remeasurement	98,046,868.05	-6,056,000.00			-919,600.00	-4,876,071.18	-260,328.82	93,170,796.87
OCI not to be transferred to P&L under equity method								
Changes in fair value of other equity instrument investment	-8,463,048.39	-114,083.95			-17,112.59	-109,312.00	12,340.64	-8,572,360.39
Change in fair value arising from credit risk of the Company itself								
II. OCI to be reclassified into P&L	60,853,685.94	-21,044,312.95				-21,044,312.95		39,809,372.99
Including: OCI to be transferred to P&L under equity method								
Change in fair value of other debt investment								
OCI on financial assets reclassification								
Allowance for credit loss on other debt investment								
Cashflow hedging reserve								
Foreign currency translation difference	60,853,685.94	-21,044,312.95	-	-	-	-21,044,312.95	-	39,809,372.99
Total OCI	150,437,505.60	-27,214,396.90	-	-	-936,712.59	-26,029,696.13	-247,988.18	124,407,809.47

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.43 Special reserve

Category	Opening balance	Additions for the period	Reduction for the period	Closing balance	Reason for Change
Production safety fee	147,328,847.45	302,535,823.28	290,054,183.45	159,810,487.28	
Total	147,328,847.45	302,535,823.28	290,054,183.45	159,810,487.28	

5.44 Surplus reserve

Category	Opening balance	Additions for the period	Reduction for the period	Closing balance
Statutory surplus reserve	222,751,992.52	1,721,916.23		224,473,908.75
Total	222,751,992.52	1,721,916.23		224,473,908.75

5.45 Undistributed profit

Item	Closing balance Amount	Withdrawal or distribution percentage
Unadjusted undistributed profit as at end of the previous year	1,879,404,403.40	
Adjustments to undistributed profit as at beginning of the year ("+" for increase, and "-" for decrease)		
Adjusted undistributed profit as at beginning of the year	1,879,404,403.40	
Add: net profit attributable to owners of the parent company for the year	-950,129,673.17	
Less: withdrawal of statutory surplus reserve	1,721,916.23	
Dividends payable to perpetual bond holders	132,576,190.33	
Dividends payable to ordinary shareholders		
Undistributed profit at end of the year	794,976,623.67	

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.46 Operating revenue and operating cost

1. Operating revenue and operating cost by major segments

Item	Amount incurred for the current period		Amount incurred for the previous period	
	Revenue	Cost	Revenue	Cost
I. Subtotal of principal business	23,072,259,648.38	19,991,689,837.11	22,815,917,902.58	20,771,792,361.53
Engineering contracting	19,160,658,377.55	16,666,065,168.64	17,717,605,607.77	16,224,934,674.14
Engineering design and consultancy	2,244,662,262.68	1,676,885,058.09	2,175,439,955.93	1,693,690,982.80
Equipment manufacturing	1,513,808,935.23	1,395,540,090.75	1,580,292,159.62	1,508,764,418.78
Trading and sales	325,793,709.21	430,036,944.28	1,583,185,664.20	1,575,554,357.72
Less: inter-segment elimination	172,663,636.29	176,837,424.65	240,605,484.94	231,152,071.91
II. Subtotal of other business	275,936,659.71	188,159,614.77	210,033,055.29	149,637,796.72
Material sales	123,181,524.56	96,301,721.04	75,993,500.92	63,542,456.96
Lease	63,866,841.28	23,432,135.84	59,645,729.16	21,675,106.86
Others	99,957,978.95	72,334,987.49	79,778,346.25	64,420,232.90
Less: inter-segment elimination	11,069,685.08	3,909,229.60	5,384,521.04	—
Total	23,348,196,308.09	20,179,849,451.88	23,025,950,957.87	20,921,430,158.25

2. Operating revenue for the year by revenue recognition time

Revenue recognition time	Engineering contracting	Engineering survey and design	Equipment manufacturing	Engineering consultation	Trading and sales
At a point in time			342,684,031.96	111,471,547.52	325,926,452.59
Over a period of time	19,363,676,699.14	2,129,216,475.44	1,195,087,581.53		
Total	19,363,676,699.14	2,129,216,475.44	1,537,771,613.49	111,471,547.52	325,926,452.59

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.46 Operating revenue and operating cost (continued)

3. Operating revenue for the year by reporting segment

Category of revenue	Revenue from contracts with clients	Lease income	Total
Engineering design and consultancy	2,240,688,022.96	45,191,523.69	2,185,879,546.65
Engineering contracting	19,363,676,699.14	9,541,194.90	19,473,217,894.04
Equipment manufacturing	1,537,771,613.49	8,623,853.21	1,546,395,466.70
Trading and sales	325,926,452.59	510,269.48	326,436,722.07
Inter-segment elimination	183,733,321.37		183,733,321.37
Total	23,284,329,466.81	63,866,841.28	23,348,196,308.09

4. Details of operating revenue

Item	Amount incurred for the current period	Amount incurred for the previous period
Operating revenue	23,348,196,308.09	23,025,950,957.87
Less: Business revenue not related to principal business	187,048,365.84	135,639,230.08
Income from sales of waste materials	123,181,524.56	75,993,500.92
Income from Real estate rental	63,866,841.28	59,645,729.16
Less: Income lacking commercial substance		
Operating revenue net of business revenue not related to principal business and income lacking commercial substance	23,161,147,942.25	22,890,311,727.79

5.47 Taxes and surcharges

Item	Amount incurred for the current period	Amount incurred for the previous period
Urban maintenance and construction tax	27,124,140.17	26,889,374.62
Educational surcharge	20,685,630.74	20,225,083.45
Others	64,868,114.66	64,677,494.34
Total	112,677,885.57	111,791,952.41

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.48 Administrative expense

Item	Amount incurred for the current period	Amount incurred for the previous period
Employee compensation	689,772,996.70	664,732,375.70
Depreciation and amortization	92,326,392.87	102,908,293.40
Office expense	126,955,242.91	117,817,330.25
Travel expense	26,999,676.76	25,012,659.43
Intermediary expense	13,953,049.91	25,151,994.18
Business expense	13,035,052.02	13,047,796.49
Party development expense	3,076,985.96	5,672,455.23
Others	48,276,410.27	46,028,178.28
Total	1,014,395,807.40	1,000,371,082.96

5.49 Sales expense

Item	Amount incurred for the current period	Amount incurred for the previous period
Employee compensation	64,289,611.82	65,619,107.71
Travel expense	8,248,756.51	8,884,552.28
Warehousing and logistics	501,182.06	3,157,103.58
Business expense	6,003,987.07	6,248,138.24
Others	16,623,730.33	12,452,712.61
Total	95,667,267.79	96,361,614.42

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.50 R&D expense

Item	Amount incurred for the current period	Amount incurred for the previous period
Employee compensation	285,875,681.19	259,032,315.69
Raw materials and main materials	412,765,641.06	293,707,915.39
Fuel and power	1,523,840.17	1,778,430.06
Depreciation and amortization	10,196,092.55	8,677,001.31
Outsourced R&D expense	20,627,722.90	8,940,545.81
Auxiliary expense	4,707,276.39	3,704,941.46
Other expenses	24,430,992.13	28,321,685.65
Total	760,127,246.39	604,162,835.37

5.51 Financial expense

Item	Amount incurred for the current period	Amount incurred for the previous period
Interest expense	559,157,613.67	652,462,828.80
Less: interest income	122,865,427.99	206,534,565.23
Exchange loss	600,116,965.69	785,158,352.65
Less: exchange gain	539,841,502.23	751,661,514.32
Handling charges	49,586,042.33	46,312,539.52
Other expenses	6,999,136.42	6,360,924.51
Total	553,152,827.89	532,098,565.93

Note: The interests on lease liabilities of the Company for the year was RMB1,475,729.45.

5.52 Other gains

Item	Amount incurred for the current period	Amount incurred for the previous period	Related to assets/income
Income related	2,102,015.58	2,849,413.87	Related to income
Asset related			Related to assets
Total	2,102,015.58	2,849,413.87	–

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.53 Gain on investment

Category	Amount incurred for the current period	Amount incurred for the previous period
Gain on long-term equity investment accounted for using equity method	12,574,082.25	20,736,899.25
Gain on investment from disposal of long-term equity investments	823,591.41	199,781.45
Gain on holding other equity instrument investment	1,092,911.31	2,010,196.92
Gain or loss on derecognition of financial assets at amortized cost	-32,316,624.33	-38,586,715.25
Gain on investment in wealth management products		
Gains or losses on debt restructuring	-34,207,788.80	7,442,237.22
Total	-52,033,828.16	-8,197,600.41

Note: For details of the profit and loss of debt restructuring, please refer to "XIV. Other Important Events (III) Debt Restructuring".

Gains of the Company as a debtor from debt restructuring are as follows:

Way of debt restructuring	Carrying amount of debt	Gains on debt restructuring
Settlement of debts with assets	19,317,764.09	2,307,599.66
Conversion of debts into equity instruments		
Variation of other terms		
Others		
Total	19,317,764.09	2,307,599.66

5.54 Gain on change in fair value

Source of gain on change in fair value	Amount incurred for the current period	Amount incurred for the previous period
Derivative instruments	-4,775,780.00	-19,100,700.00
Total	-4,775,780.00	-19,100,700.00

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.55 Credit impairment loss

Item	Amount incurred for the current period	Amount incurred for the previous period
Credit impairment loss on accounts receivable	-616,741,845.41	-632,057,196.37
Credit impairment loss on other receivables	-312,016,011.28	-348,669,502.39
Credit impairment loss on long-term receivables	-82,154,264.92	-78,113,392.35
Total	-1,010,912,121.61	-1,058,840,091.11

5.56 Asset impairment loss

Item	Amount incurred for the current period	Amount incurred for the previous period
Inventory impairment loss	-328,928,351.40	-89,120,912.70
Contract asset impairment loss	5,072,154.92	-437,633,289.58
Long-term equity investment impairment loss		-39,846,251.15
Fixed asset impairment loss	-3,114,079.85	
Other impairment losses	-2,159,600.00	
Total	-329,129,876.33	-566,600,453.43

5.57 Gain on asset disposal

Item	Amount incurred for the current period	Amount incurred for the previous period
Gain on disposal of fixed assets	3,299,952.95	116,489.95
Gain on disposal of intangible assets		9,512,290.55
Gain on disposal of right-of-use assets		663,498.04
Total	3,299,952.95	10,292,278.54

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.58 Non-operating income

1. Breakdown of non-operating income

Item	Amount incurred for the current period	Amount incurred for the previous period	Amount included in non-recurring gain or loss for the year
Income from liquidated damages	5,578,045.50	12,892,395.91	5,578,045.50
Approved payables impossible to be paid	37,218,189.42	46,827,826.35	37,218,189.42
Others	9,747,648.57	7,510,143.50	9,747,648.57
Total	52,543,883.49	67,230,365.76	52,543,883.49

5.59 Non-operating expense

Item	Amount incurred for the current period	Amount incurred for the previous period	Amount included in non-recurring gain or loss for the year
Compensation expense	27,025,431.92	4,508,129.75	27,025,431.92
Others	22,659,919.74	7,640,389.88	22,659,919.74
Total	49,685,351.66	12,148,519.63	49,685,351.66

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.60 Income tax expense

1. Breakdown of income tax expense

Item	Amount incurred for the current period	Amount incurred for the previous period
Income tax expense for the year calculated according to the tax law and relevant regulations	163,569,352.70	155,900,395.54
Deferred income tax expense	-58,231,757.18	-124,283,455.62
Total	105,337,595.52	31,616,939.92

2. Reconciliation of accounting profit and income tax expense

Item	Amount
Total profit	-756,265,284.57
Income tax expense calculated at statutory/applicable tax rate	-113,439,792.69
Impact of subsidiaries applying different tax rates	-131,832,209.71
Impact of adjustments to income tax for prior period	11,820,277.89
Impact of non-taxable income	5,013,170.27
Impact of non-deductible cost, expense and loss	8,439,514.69
Impact of utilizing deductible temporary difference or deductible loss on which no deferred tax asset was recognized in prior period	-20,547,963.52
Impact of deductible temporary difference or deductible loss on which no deferred tax asset is recognized in current period	398,545,542.06
Income tax impact of interest on perpetual bonds recorded in equity	-16,852,500.00
Others	-35,808,443.47
Income tax expense	105,337,595.52

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.61 Expenses by nature

Item	Amount incurred for the current period	Amount incurred for the previous period
Raw materials consumed	299,191,286.91	187,712,924.63
Movements in inventory of finished products and products in progress		
Employee compensation	989,973,107.58	989,535,343.75
Depreciation and amortization expenses	115,960,402.84	130,107,891.40
Credit impairment loss	-1,058,840,091.11	-686,895,399.73
Asset impairment loss	-566,600,453.43	-6,981,953.83
Finance expense	532,098,565.93	573,119,644.89
Others	333,219,305.02	409,352,237.06
Total	645,002,123.74	1,595,950,688.17

5.62 Statement of cash flows

1. Other cash received or paid related to operating activities

Item	Amount incurred for the current period	Amount incurred for the previous period
Other cash received related to operating activities		
Including: Cash received for payment on behalf	103,885,491.49	76,798,217.91
Interest on demand deposits received	52,718,895.77	95,598,792.92
Deposits and security deposits recovered		
Government subsidy related to income received	46,528,194.57	51,576,192.51
Government subsidy related to assets received		40,000,000.00
Decrease in restricted cash		174,173,736.01
Total	215,268,626.75	444,520,514.72

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.62 Statement of cash flows (continued)

2. Other cash paid related to investing activities

Item	Amount incurred for the current period	Amount incurred for the previous period
Other cash received related to operating activities	1,171,738,049.12	532,611,435.80
Including: Office expense paid	144,275,871.17	167,852,329.24
Deposits and security deposits paid	594,765,092.16	113,728,887.45
Other changes in restricted cash	167,236,109.00	
R&D expense and intermediary fee paid	77,935,103.76	112,474,290.98
Travel expense paid	55,333,565.02	69,363,602.68
Bank handling fees paid	88,887,876.21	41,126,564.26
Hospitality expense paid	16,214,144.75	14,506,111.84
Litigation loss paid	5,379,453.90	10,123,906.56

3. Other cash received related to investing activities

Item	Amount incurred for the current period	Amount incurred for the previous period
Other cash received related to investing activities		
Including: Withdrawal of margin on futures		50,000,000.00
Difference of cash paid for acquisition of a subsidiary below cash held by the subsidiary on acquisition date		
Total		50,000,000.00

4. Other cash paid related to investing activities

Item	Amount incurred for the current period	Amount incurred for the previous period
Other cash paid related to investing activities		
Including: Payment of margin on futures		50,000,000.00
Total		50,000,000.00

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.62 Statement of cash flows (continued)

5. Other cash received related to financing activities

Item	Amount incurred for the current period	Amount incurred for the previous period
Other cash received related to financing activities Including: Cash received from disposal of certain equity interests in subsidiaries (without loss of control)		9,810,000.00
Total		9,810,000.00

6. Other cash paid related to financing activities Item

Item	Amount incurred for the current period	Amount incurred for the previous period
Other cash paid related to financing activities Item Including: redemption of perpetual bonds recorded in other equity instruments		2,924,205,000.00
Payments to minority shareholders for capital reduction		30,670,000.00
Payment of principal and interest of lease obligation	3,135,039.06	8,072,773.90
Liquidation payment to other shareholders upon cancellation of a subsidiary		1,032,000.00
Bond and perpetual bond issuance cost	1,282,222.22	556,779.76
Cash paid in business combination under common control		
OCBC Bank forward foreign exchange settlement and liquidation	19,120,000.00	
Total	23,537,261.28	2,964,536,553.66

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.63 Supplementary details for cash flow statement

1. Supplementary details for cash flow statement

Item	Amount incurred for the current period	Amount incurred for the previous period
1. Reconciliation of net profit to cash flows from operating activities		
Net profit	-861,602,880.09	-1,856,397,497.80
Add: Asset impairment provision	329,129,876.33	566,600,453.43
Credit impairment loss	1,010,912,121.61	1,058,840,091.11
Depreciation of fixed assets, depreciation of right-of-use assets and depreciation of investment properties	185,719,888.21	172,762,374.07
Depreciation of right-of-use assets	5,413,731.66	11,987,794.64
Amortization of intangible assets	28,877,444.53	37,488,577.79
Amortization of long-term unamortized expenses	53,004,033.29	36,945,738.20
Loss on disposal of fixed assets, intangible assets and other long-term assets ("—" for gain)	-3,299,952.95	-10,292,278.54
Loss on scraping of fixed assets ("—" for gain)	-1,019,545.86	502,977.50
Loss on net exposure netting ("—" for gain)	4,775,780.00	19,100,700.00
Loss on fair value change ("—" for gain)	380,701,357.57	557,191,631.64
Finance expense ("—" for income)	52,033,828.16	30,389,114.84
Investment loss ("—" for gain)	-57,555,384.42	-124,433,712.36
Decrease in deferred tax assets ("—" for increase)	1,074,049.01	604,633.93
Increase in deferred tax liabilities ("—" for decrease)	863,878,586.83	-359,876,481.24
Decrease in inventories ("—" for increase)	-289,710,168.05	5,287,838,517.79
Decrease in contract assets ("—" for increase)	-2,055,010,921.51	-3,553,256,092.93
Decrease in operating receivables ("—" for increase)	1,086,893,195.77	-1,265,260,954.62
Increase in operating payables ("—" for decrease)		
Others		
Net cashflow from operating activities	734,215,040.09	610,735,587.45

**SECTION 10 FINANCIAL REPORT****5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)****5.63 Supplementary details for cash flow statement (continued)****1. Supplementary details for cash flow statement (continued)**

Item	Amount incurred for the current period	Amount incurred for the previous period
2. Significant investing and financing activities not involving cash payment or receipt		
Conversion from debt to capital		
Convertible corporate bonds due within one year		
Fixed asset under finance lease		
3. Net change in cash and cash equivalents		
Cash at end of the year	6,618,304,071.35	6,549,994,944.43
Less: cash at beginning of year	6,549,994,944.43	9,120,495,450.16
Add: cash equivalents at end of the year		
Less: cash equivalents at beginning of the year		
Net increase in cash and cash equivalents	68,309,126.92	-2,570,500,505.73

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.63 Supplementary details for cash flow statement (continued)

2. Cash and cash equivalents

Item	Closing balance	Opening balance
I. Cash	6,618,304,071.35	6,549,994,944.43
Including: cash on hand	738,796.17	644,341.40
Cash at bank	6,644,536,818.05	6,600,712,134.14
Other monetary fund	871,520,745.03	679,894,647.79
Less: time deposits with maturities over three months		
Restricted cash	898,492,287.90	731,256,178.90
II. Cash equivalents		
Including: time deposit maturing within three months		
III. Cash and cash equivalents at end of the year	6,618,304,071.35	6,549,994,944.43



SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.64 “Others” in the statement of changes in owners’ equity

1. “Others” in the statement of changes in owners’ equity for the current period

- (1) RMB297,433.89 change in “others” under “capital reserve” was caused by three matters. Specifically, RMB275,862.07 was the impact of other changes in equity interests of its associate Chinalco Environmental Protection and Ecological Technology (Hunan) Co., Ltd. recognized by China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd., a subsidiary of the Company under the equity method; RMB-559,917.55 was the impact of other changes in equity interests of its joint venture Zhongji Sunward Technology Co., Ltd. recognized by China Aluminum International Energy Saving Technology (Beijing) Co., Ltd. under the equity method; RMB581,489.37 was the impact of other changes in equity interests of its joint venture Zhongji Sunward Technology Co., Ltd. recognized by Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy, a subsidiary of the Company under the equity method.
- (2) The change in “others” under “undistributed profits” of –132,576,190.33 was caused by three matters, of which –79,353,967.50 was the impact of the interest paid by 19 Zhong Gong Y1 in the current period; –53,222,222.83 was the impact of the interest paid by Industrial Bank perpetual bonds in the current period.

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.64 “Others” in the statement of changes in owners’ equity (continued)

2. “Others” in the statement of changes in owners’ equity for the last period

- (1) RMB80,158,114.95 change in “others” under “capital reserve” was caused by six matters. Specifically, RMB-2,500,000.00 was the impact of the redemption of “17 Zhong Gong Y1” bond upon its maturity; RMB71,977,810.24 was the impact of the acquisition of minority interests in a subsidiary Ninth Metallurgical Construction Co., Ltd. by the parent company; RMB5,801,850.10 was the impact of the disposal of certain equity interests in Clinqsoft Info Tech by Changsha Institute, a subsidiary of the Company; RMB1,638,050.36 was the impact of incremental capital contribution from shareholders of an associate of China Aluminum International Aluminum Application Engineering Co., Ltd., a subsidiary of the Company; RMB2,988,570.53 was the impact of incremental capital contribution from shareholders of an associate of China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd., a subsidiary of the Company; RMB251,833.72 was the impact of incremental capital contribution from shareholders of a joint venture of Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy, a subsidiary of the Company.
- (2) The change in “others” under “minority interests” was RMB-67,969,660.34. Specifically, RMB-71,977,810.24 was the impact of the acquisition of minority interests in a subsidiary Ninth Metallurgical Construction Co., Ltd. by the parent company; RMB4,008,149.90 was the impact of minority interests on the disposal date due to the disposal of certain equity interests in Clinqsoft Info Tech by Changsha Institute, a subsidiary of the Company.

5.65 Assets with restricted ownership or use rights

Item	Book value as at the end of the year	Reason for restriction
Monetary fund	898,492,287.90	Frozen, pledged
Notes receivable	88,175,287.39	Pledged
Accounts receivable	158,840,940.68	Pledged
Fixed assets	8,931,142.92	Mortgaged
Total	1,154,439,658.89	—

SECTION 10 FINANCIAL REPORT

5 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5.66 FCY monetary items

1. FCY monetary items

Item	Closing balance in FCY	Exchange rate	Closing balance in RMB
Monetary fund			642,778,839.40
Including: USD	90,073,225.45	6.3757	574,279,863.50
VND	7,582,370,590.00	0.0003	2,088,943.09
INR	58,251,470.00	0.0857	4,990,847.24
IDR	121,581,146,208.85	0.0005	60,559,082.39
MYR	427,914.65	1.5267	653,304.81
SAR	121,762.88	1.6984	206,798.37
Accounts receivable			913,930,180.60
Including: USD	136,829,671.68	6.3757	872,384,937.73
VND	141,830,430,103.00	0.0003	39,074,283.35
INR	28,840,198.38	0.0857	2,470,959.52
IDR		0.0005	
Long-term borrowings			545,514,067.70
Including: USD	83,001,615.76	6.3757	529,193,401.62
VND	59,240,167,487.00	0.0003	16,320,666.08

2. Functional currency of significant overseas entities

Significant overseas entity	Principal place of business	Functional currency	Basis
Chalieco Hong Kong Corporation Limited	Hong Kong	USD	Revenue from daily activities

SECTION 10 FINANCIAL REPORT

6 CHANGE IN SCOPE OF CONSOLIDATION

- 6.1 Business combination not under common control during the reporting period: Nil
- 6.2 Business combination under common control during the reporting period: Nil
- 6.3 Reverse purchase during the reporting period: Nil
- 6.4 Disposal of equity in subsidiaries during reporting period: Nil
- 6.5 Other reasons for changes in the scope of consolidation of financial statements

Third-tier subsidiaries added during the Reporting Period: During the Reporting Period, the company completed the cancellation of Shanxi Longye Construction Labor Service Co., Ltd. and Xinchengtong (Tianjin) Construction Engineering Co., Ltd., so it is no longer included in the scope of consolidation.

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES

7.1 Equity in subsidiaries

1. Composition of Group

Subsidiary	Business type	Place of incorporation	Registered capital (RMB0,000)	Principal place of business	Business scope	Shareholding percentage (%)		Means of acquisition
						Direct	Indirect	
China Nonferrous Metals Processing Technology Co., Ltd.	1	High-tech Zone, Luoyang City	11,515.00	Luoyang, Henan	Technical development and equipment sales	73.50		2
Luoyang Jincheng Construction Supervision Co., Ltd.	1	Jianxi District, Luoyang City	500.00	Luoyang, Henan	Construction supervision		100.00	2
Luoyang Foyang Decoration Engineering Co., Ltd.	1	High-tech Zone, Luoyang City	2,050.00	Luoyang, Henan	Other construction and installation industry		51.22	2
Luoyang Kaijing Technology Co., Ltd.	1	Luolong District, Luoyang City	20,000.00	Luoyang, Henan	IT consultancy service		100.00	2
Suzhou Nonferrous Metal Materials Deyuan Environmental Protection Co., Ltd.	1	Suzhou High-tech Zone	2,500.00	Suzhou, Jiangsu	Environmental protection technology development and sales		62.50	1
Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	1	Huaihe Road, Zhengzhou City	250,000.00	Zhengzhou, Henan	Construction projects	100.00		2
Sixth Metallurgical Luoyang Construction Co., Ltd.	1	Jianxi District, Luoyang City	1,659.80	Luoyang, Henan	Construction projects		100.00	1
Sixth Metallurgical Luoyang Mechanical and Electrical Installation Co., Ltd.	1	Jianxi District, Luoyang City	1,117.33	Luoyang, Henan	Construction projects		100.00	1
Sixth Metallurgical (Zhengzhou) Technology Heavy Industry Co., Ltd.	1	Industrial Agglomeration Area, Xinmi City	10,043.00	Zhengzhou, Henan	Engineering machinery manufacturing		100.00	1
Henan Sixth Metallurgical Trading Co., Ltd.	1	Zhengzhou Economic and Technological Development Zone	3,000.00	Zhengzhou, Henan	Trading business		100.00	1

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

1. Composition of Group (continued)

Subsidiary	Business type	Place of incorporation	Registered capital (RMB'0,000)	Principal place of business	Business scope	Shareholding percentage (%)		Means of acquisition
						Direct	Indirect	
Panzhou Hachong Project Management Co., Ltd.	1	Liupanshui City, Guizhou Province		Guiyang, Guizhou	Construction projects	30.00		1
Tongchuan Hao Tong Construction Co., Ltd.	1	Tongchuan City, Shaanxi Province	12,000.00	Tongchuan, Shaanxi	Construction projects		80.00	1
China Aluminum Great Wall Construction Co., Ltd.	1	Shangjie District, Zhengzhou City	26,853.63	Henan	Engineering and construction contracting		100.00	2
Huaian Tong Yun Construction Co., Ltd.	1	Huaiyin District, Huai'an City	10,077.73	Jiangsu	Construction projects		100.00	1
Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy	1	Furong District, Changsha City	72,468.87	Changsha, Hunan	Survey and design	100.00		2
Changsha Cingsoft Info Tech Co., Ltd.	1	Changsha High-tech Industrial Development Zone	200.00	Changsha	Software development and technical service		100.00	2
Hunan Huachu Project Management Co., Ltd.	1	Furong District, Changsha City	600.02	Hunan	Consultancy and supervision service		100.00	2
Hunan Changye Construction Drawing Examination Co., Ltd.	1	Furong District, Changsha City	329.99	Hunan	Construction drawing examination		100.00	2
Huachu High-Tech (Hunan) Co., Ltd.	1	Jiuhua Demonstration Zone, Xiangtan	3,500.00	Xiangtan	Equipment sales		100.00	1

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

1. Composition of Group (continued)

Subsidiary	Business type	Place of incorporation	Registered capital (RMB'0,000)	Principal place of business	Business scope	Shareholding percentage (%)		Means of acquisition
						Direct	Indirect	
China Aluminum International South Engineering Co., Ltd.	1	Nanding Town, Zhangdian, Zibo	15,290.00	Shandong	Construction and installation		100.00	2
Wenzhou Tongrun Construction Co., Ltd.	1	Lucheng District, Wenzhou City	3,000.00	Wenzhou	Construction projects	60.00	40.00	1
Wenzhou Tonghui Construction Co., Ltd.	1	Longwan District, Wenzhou City	3,000.00	Wenzhou	Construction projects	90.00	10.00	1
Ninth Metallurgical Construction Co., Ltd.	1	Weicheng District, Xianyang city, Shaanxi province	32,000.00	Xiangyang	Engineering construction	72.08		3
Henan Ninth Metallurgical Construction Co., Ltd.	1	Zhengzhou City, Henan Province	5,000.00	Zhengzhou	Engineering construction		100.00	3
Zhengzhou Ninth Metallurgical Sanwei Chemical Machinery Co., Ltd.	1	Zhengzhou City, Henan Province	10,000.00	Zhengzhou	Equipment manufacturing		100.00	3
Hanzhong Ninth Metallurgical Construction Co., Ltd.	1	Mian County, Shaanxi Province	12,000.00	Hanzhong, Shaanxi	Engineering construction		100.00	3
Ankang Ninth Metallurgical Changjiali Concrete Co., Ltd.	1	Ankang City, Shaanxi Province	1,000.00	Ankang City, Shaanxi Province	Concrete production		100.00	3
Xinjiang Ninth Metallurgical Construction Co., Ltd.	1	Changji Prefecture, Xinjiang	6,000.00	Xinjiang	Engineering construction		100.00	3
Ninth Metallurgical Steel Structure Co., Ltd.	1	Xianyang City, Shaanxi province	630.00	Xiangyang	Equipment manufacturing		100.00	3

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

1. Composition of Group (continued)

Subsidiary	Business type	Place of incorporation	Registered capital (RMB'0,000)	Principal place of business	Business scope	Shareholding percentage (%)		Means of acquisition
						Direct	Indirect	
Mian County Ninth Metallurgical Kindergarten	1	Mian County, Shaanxi Province	50.00	Mian County, Shaanxi	Pre-school education		100.00	3
Ninth Metallurgical Hanzhong Construction Design Institute Co., Ltd.	1	Mian County, Shaanxi Province	50.00	Hanzhong, Shaanxi	Survey and design		100.00	3
Shaanxi Zhong Mian Investment Company Limited	1	Mian County, Shaanxi Province	10,000.00	Shaanxi	Hot spring project development and operations management		51.00	1
Shenyang Aluminum & Magnesium Design Institute Co., Ltd.	1	Heping District, Shenyang City	49,074.32	Shenyang	Engineering survey and design	100.00		1
Shenyang Boyu Technology Co., Ltd.	1	Sujiatun District, Shenyang City	2,025.00	Liaoning	Industrial manufacturing		100.00	1
Shenyang Aluminum & Magnesium Technology Co., Ltd.	1	Heping District, Shenyang City	1,050.00	Liaoning	Technical service		100.00	1
Shenyang Aluminum & Magnesium Engineering & Research Institute Construction Supervision Co., Ltd.	1	Heping District, Shenyang City	411.80	Liaoning	Construction supervision		100.00	1
Beijing Huayu Aerospace Control High-Tech Co., Ltd.	1	Haidian District, Beijing	1,750.00	Beijing	Technology research and development		60.00	1

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

1. Composition of Group (continued)

Subsidiary	Business type	Place of incorporation	Registered capital (RMB'0,000)	Principal place of business	Business scope	Shareholding percentage (%)		Means of acquisition
						Direct	Indirect	
China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	1	Xinghualing District, Taiyuan City	53,341.94	Shanxi	Construction projects	100.00		2
China Nonferrous Metals Industry's Twelfth Metallurgical Chongqing Energy Savings Technology Co., Ltd.	1	Nanan District, Chongqing City	1,200.00	Chongqing	Contract energy management		100.00	1
Shanxi Nonferrous Metal Twelfth Metallurgical Supplies Co., Ltd.	1	Xinghualing District, Taiyuan City	1,500.00	Taiyuan City	Commodity trading		100.00	1
China Aluminum International 12MCC Construction Co., Ltd.	3	Incheon, South Korea	351.12	Incheon, South Korea	Construction and installation industry		80.00	1
China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd.	1	Furong District, Changsha City	18,373.00	Hunan	Survey and design	100.00		2
Shenzhen Changkan Survey and Design Co., Ltd.	1	Shennan East Road, Shenzhen City	1,502.00	Guangdong	Technical service		100.00	2
Changsha Tongxiang Construction Co., Ltd.	1	Yuelu District, Changsha City	2,500.00	Changsha	Construction projects	40.00	60.00	1
Hunan Tongdu Investment and Development Co., Ltd.	1	Furong District, Changsha City	1,000.00	Changsha	Investment	60.00	40.00	1
China Aluminum International Engineering & Equipment Co., Ltd.	1	Haidian District, Beijing	20,000.00	Beijing	Equipment sales	100.00		1
China Aluminum International Shandong Chemical Industry Co., Ltd.	1	Zibo High-tech Zone	5,000.00	Shandong	Equipment sales		100.00	1

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

1. Composition of Group (continued)

Subsidiary	Business type	Place of incorporation	Registered capital (RMB'0,000)	Principal place of business	Business scope	Shareholding percentage (%)		Means of acquisition
						Direct	Indirect	
China Aluminum International Logistic (Tianjin) Co., Ltd.	1	Tianjin Airport Economic Zone	5,000.00	Tianjin	Trading		100.00	1
Shanghai China Aluminum International Supply Chain Management Co., Ltd.	1	Pudong New Area, Shanghai	2,100.00	Pudong New Area, Shanghai	Trading		100.00	1
Chaleco Hong Kong Corporation Limited	3	Queen's Road East, Wan Chai, Other overseas regions	6,557.20	Hong Kong	Investment	100.00		1
Chaleco Malaysia Sdn.Bhd.	3	Other overseas regions	157.92	Malaysia	Engineering survey and design		100.00	1
Shanghai Chaleco Fengyuan Equity Investment Fund Partnership (Limited Partner)	1	China (Shanghai) Pilot Free Trade Zone	45,930.58	Shanghai	Trading		99.95	1
China Aluminum International Investment Management (Shanghai) Co., Ltd.	1	China (Shanghai) Pilot Free Trade Zone	49,400.00	Shanghai	Trading	5.00	95.00	1
Chaleco (Tianjin) Construction Co., Ltd.	1	Tianjin Airport Economic Area	27,115.00	Tianjin	Engineering construction	100.00		2
China Aluminum International Technology Development Co., Ltd.	1	Haidian District, Beijing	6,000.00	Beijing	Technology research and development	100.00		1

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

1. Composition of Group (continued)

Subsidiary	Business type	Place of incorporation	Registered capital (RMB'0,000)	Principal place of business	Business scope	Shareholding percentage (%)		Means of acquisition
						Direct	Indirect	
China Aluminum International Engineering (India) Private Limited	3	West Bengal, India	594.24	India	Construction projects	99.99	0.01	1
China Aluminum International Yunnan Aluminum Application Engineering Co., Ltd.	1	Haidian District, Beijing	7,800.00	Beijing	Investment consultancy	100.00		1
Duyun Development Zone Tongda Construction Co., Ltd.	1	Duyun Economic Development Zone	1,000.00	Guizhou	Engineering construction	50.00	50.00	1
Guiyang Aluminum and Magnesium Design Institute Co., Ltd.	1	Guanshanhu District, Guiyang City	70,000.00	Guizhou	Design consultancy	100.00		1
Guiyang Aluminum and Magnesium Design Institute Construction Contracting Co., Ltd	1	Guanshanhu District, Guiyang City	4,500.00	Guizhou	Engineering construction		100.00	1
Guiyang Zhenxing Aluminum & Magnesium Technological Development Co., Ltd.	1	Guiyang High-Tech Business Incubator	3,000.00	Guizhou	Technology development and software design		100.00	1
Guizhou Light Metal Innovation Research and Equipment Process Co., Ltd.	1	Guiyang National High-tech Industrial Development Zone	2,000.00	Guizhou	Technology development and software design		100.00	1
Guiyang Xinyu Construction Supervision Co., Ltd.	1	Jinyang New District, Guiyang City, Guizhou Province	1,341.95	Guizhou	Engineering supervision and consultancy		100.00	1
Guizhou Yundu Properties Company Limited	1	Duyun Economic Development Zone	12,800.00	Guizhou	Real estate development and engineering construction		100.00	1

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

1. Composition of Group (continued)

Subsidiary	Business type	Place of incorporation	Registered capital (RMB'0,000)	Principal place of business	Business scope	Shareholding percentage (%)		Means of acquisition
						Direct	Indirect	
Guizhou Shunan Mechanical and Electric Equipment Co., Ltd.	1	Pingba County, Anshun City	6,198.00	Guizhou	Equipment manufacturing		100.00	3
Guangxi Tongrui Investment Construction Co., Ltd.	1	Liangqing District, Nanning City	25,000.00	Guangxi	Building construction	100.00		1
China Aluminum International Aluminum Application Engineering Co., Ltd.	1	Haidian District, Beijing	14,450.00	Beijing	Trading and technical service	100.00		1
Shanxi Nonferrous Metal Twelfth Metallurgical Advanced Materials Co., Ltd.	1	Jiancaoping District, Taiyuan City	3,000.00	Shanxi	Scientific research and technical service industry		66.00	1
Qingdao Xinfu Gongchuang Asset Management Company Limited	1	Shinan District, Qingdao City	1,000.00	Shandong	Commercial development and operations	90.00		3
Chalco Shandong Engineering Technology Co., Ltd.	1	Zhangdian District, Zibo City	27,460.71	Shandong	Other construction and installation industry	60.00		2
Chalco Wancheng Shandong Construction Co., Ltd.	1	Zhangdian District, Zibo City	6,381.00	Shandong	Other construction and installation industry		96.57	2
Kunming Survey and Design Institute Co., Ltd. of China Nonferrous Metals industry	1	Panlong District, Kunming City	10,850.00	Kunming	Engineering survey and design	100.00		2
Kunming Technology Development Co., Ltd.	1	Panlong District, Kunming City	200.00	Kunming	Other construction and installation industry		100.00	2
Africa Congo-Kinshasa Company of Kunming Survey and Design Institute of	3	The Democratic Republic of the Congo	6.84	The Democratic Republic of the Congo	Technological services for geological survey		100.00	1
Chinalco Southwest Construction Investment Co., Ltd.	1	Xishan District, Kunming City	21,302.00	Kunming	Project investments	100.00		1
Yunnan Miyu Expressway Investment and Development Co., Ltd.	1	Huaning County, Yuxi City	70,000.00	Yuxi City, Yunnan Province	Construction projects	43.60	10.20	3

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

1. Composition of Group (continued)

Notes:

- (1) Business type: 1. Domestic non-financial subsidiaries, 2. Domestic financial subsidiaries, 3. Overseas subsidiaries, 4 public institutions, and 5 infrastructure units.
- (2) Means of acquisition: 1. Incorporation; 2. Business combination under common control, 3. Business combination not under common control, 4. Others.
- (3) China Aluminum International Engineering (India) Private Limited, a subsidiary incorporated in India, needs to follow local foreign exchange management policies, pursuant to which these subsidiaries must obtain prior approval from the local foreign exchange administration to pay cash dividends to the Company and other investors.
- (4) China Aluminum International Aluminum Technological Development Co., Ltd., a wholly-owned subsidiary of the Company, was renamed as China Aluminum International Aluminum Application Engineering Co., Ltd.
- (5) Beijing Zichen Investment Development Corporation Limited, a wholly-owned subsidiary of the Company, was renamed as China Aluminum International Yunnan Aluminum Application Engineering Co., Ltd.
- (6) Panzhou Haohong Project Management Co., Ltd. (hereinafter referred to as "Panxian Haohong") was jointly established by Sixth Metallurgical Construction Co., Ltd. (hereinafter referred to as "Sixth Metallurgical Company"), a wholly-owned subsidiary of the Company, and another shareholder, Panxian Panzhou Ancient City Development and Management Co., Ltd. (hereinafter referred to as "Panzhou Ancient City Development"), which was held as to 30% and 70% by Sixth Metallurgical Company and Panzhou Ancient City Development, respectively. The articles of association of Panxian Haohong stipulates that the resolutions of the shareholders meeting to amend the articles of association, the increase or decrease in the registered capital, and merging, splitting, dissolving or changing of the form of the company must be approved by shareholders representing more than two-thirds of the voting rights. For resolutions regarding other matters, they must be approved by shareholders representing more than half of the voting rights. Sixth Metallurgical Company has 70% of the voting rights in the shareholders' meeting, and Panzhou Ancient City Development has 30% of the voting rights. Resolutions of the board of directors must be passed by more than two-thirds of all directors. Panxian Haohong has 3 board members, including 2 directors appointed by Sixth Metallurgical Company and 1 director appointed by Panzhou Ancient City Development. Therefore, the Company can control Panxian Haohong, and it was consolidated into the Company's financial statements.

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

2. Particulars of important partially-owned subsidiaries

No.	Subsidiary name	Shareholding of minority shareholders (%)	P&L attributable to minority shareholders for the year	Declared dividends to minority shareholders for the year	Minority interest at the end of the year
1	China Nonferrous Metals Processing Technology Co., Ltd.	26.50	-17,640,306.38		-9,123,400.63
2	Ninth Metallurgical Construction Co., Ltd.	26.92	26,495,704.52		293,764,130.50
3	Chalco Shandong Engineering Technology Co., Ltd.	40.00	-30,447,018.04		108,132,464.88

3. Summarized financial information of significant partially-owned subsidiaries (except those classified as held for sale)

Subsidiary	Current assets	Non-current assets	Closing balance			
			Total assets	Current liabilities	Non-current liabilities	Total liabilities
China Nonferrous Metals Processing Technology Co., Ltd.	821,860,608.02	1,104,026,278.20	1,925,886,886.22	1,473,566,063.38	420,089,160.02	1,893,655,223.40
Ninth Metallurgical Construction Co., Ltd.	8,363,267,135.22	1,128,409,658.90	9,491,676,794.12	6,963,923,960.16	336,718,669.38	7,300,642,629.54
Chalco Shandong Engineering Technology Co., Ltd.	992,105,696.74	151,634,313.05	1,143,740,009.79	856,431,630.11	16,000,000.00	872,431,630.11

No.	Subsidiary	Current assets	Non-current assets	Opening balance			
				Total assets	Current liabilities	Non-current liabilities	Total liabilities
1	China Nonferrous Metals Processing Technology Co., Ltd.	885,413,759.69	1,116,218,246.92	2,001,632,006.61	1,530,759,156.47	424,458,916.11	1,955,218,072.58
2	Ninth Metallurgical Construction Co., Ltd.	7,818,414,832.49	920,638,472.20	8,739,053,304.69	6,646,757,009.69	1,015,704,391.54	7,662,461,401.23
3	Chalco Shandong Engineering Technology Co., Ltd.	1,156,210,344.37	156,669,056.77	1,312,879,401.14	948,613,202.67	16,000,000.00	964,613,202.67

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.1 Equity in subsidiaries (continued)

3. Summarized financial information of significant partially-owned subsidiaries (except those classified as held for sale) (continued)

Subsidiary	Operating revenue	Amount incurred for the current period		Cash flow from operating activities
		Net profit	Total comprehensive income	
China Nonferrous Metals Processing Technology Co., Ltd.	707,826,215.42	-65,897,989.10	-66,834,689.10	43,542,072.29
Ninth Metallurgical Construction Co., Ltd.	5,241,879,108.69	94,054,552.38	94,055,402.38	32,125,517.85
Chalco Shandong Engineering Technology Co., Ltd.	527,093,403.14	-77,493,587.71	-77,493,587.71	11,195,856.96

No.	Subsidiary	Operating revenue	Amount incurred for the current period		Cash flow from operating activities
			Net profit	Total comprehensive income	
1	China Nonferrous Metals Processing Technology Co., Ltd.	835,270,877.39	-73,327,815.99	-74,208,415.99	69,226,372.09
2	Ninth Metallurgical Construction Co., Ltd.	4,613,973,036.84	137,947,389.74	138,976,549.23	469,803,713.01
3	Chalco Shandong Engineering Technology Co., Ltd.	634,205,222.23	-48,767,584.06	-48,767,584.06	13,270,206.46

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.2 Interests in joint ventures and associates

1. Particulars of significant joint ventures and associates

Subsidiary name	Principal place of business	Place of incorporation	Business scope	Shareholding percentage (%)		Accounting treatment method
				Direct	Indirect	
Shanghai Fengtong Equity Investment Fund Partnership (Limited Partnership)	Shanghai	Shanghai	Investment company	40.00		Equity method
Zhongji Sunward Technology Co., Ltd.	Hunan	Hunan	Metallurgical equipment manufacturing		49.00	Equity method

2. Particulars of significant associates

Subsidiary name	Principal place of business	Place of incorporation	Business scope	Shareholding percentage (%)		Accounting treatment method
				Direct	Indirect	
China Aluminum South Aluminum (Fujian) Aluminum Structure Technology Co., Ltd.	Jiangsu	Yancheng city	Research and experimental development		33.50	Equity method
Sichuan Chuannan Rail Transit Operation Co., Ltd.	Sichuan	Yibin city	Road transport industry		10.00	Equity method
Guizhou Tongye Construction Development Co., Ltd.	Guizhou	Guiyang city	Construction and installation industry		45.00	Equity method

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.2 Interests in joint ventures and associates (continued)

3. Summarised financial information of significant joint ventures (except those classified as held for sale)

Item	Closing balance/Amount incurred for the current period		Opening balance/Amount incurred for the previous period	
	Shanghai Fengtong Equity Investment Fund Partnership (Limited Partnership)	Zhongji Sunward Technology Co., Ltd.	Shanghai Fengtong Equity Investment Fund Partnership (Limited Partnership)	Zhongji Sunward Technology Co., Ltd.
Current assets	70,127,636.85	257,539,780.74	70,374,482.60	129,799,622.50
Including: cash and cash equivalents	2,461,499.89	66,085,512.66	2,708,345.64	36,896,000.25
Non-current assets	465.97	13,719,159.62	465.97	17,208,153.89
Total assets	70,128,102.82	271,258,940.36	70,374,948.57	147,007,776.39
Current liabilities	10,238,401.97	162,742,471.40	10,478,700.35	42,387,542.20
Non-current liabilities				
Total liabilities	10,238,401.97	162,742,471.40	10,478,700.35	42,387,542.20
Minority interests	1,000,000.00		1,000,000.00	
Equity attributable to shareholders of the parent	58,889,700.85	108,516,468.96	58,896,248.22	104,620,234.19
Share in net assets at shareholding percentage	8,889,700.85	53,173,069.79	8,896,248.22	51,263,914.75
Adjustments				
Including: Goodwill				
Unrealized profit on inter-company				
Others				
Book value of equity interests in associates	8,889,700.85	53,173,069.79	8,896,248.22	51,263,914.75
Fair value of equity interests in associates with public quotations				
Operating revenue		227,375,100.72		103,075,701.34
Finance expense	-8,839.09	-276,089.83	-8,839.09	-43,761.91
Income tax expense				
Net profit	-43,649.16	6,062,276.44	-43,649.16	5,019,158.55
Net profit on discontinued operations				
Other comprehensive income				
Total comprehensive income	-43,649.16	6,062,276.44	-43,649.16	5,019,158.55
Dividends paid by associates during the year				

SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.2 Interests in joint ventures and associates (continued)

4. Summarised financial information of significant associates

Item	Closing balance/Amount incurred for the current period			Opening balance/Amount incurred for the previous period		
	China Aluminum South Aluminum (Fujian) Aluminum Structure Technology Co., Ltd.	Sichuan Chuannan Rail Transit Operation Co., Ltd.	Guizhou Tongye Construction Development Co., Ltd.	China Aluminum South Aluminum (Fujian) Aluminum Structure Technology Co., Ltd.	Sichuan Chuannan Rail Transit Operation Co., Ltd.	Guizhou Tongye Construction Development Co., Ltd.
Current assets	184,407,256.67	240,642,640.05	1,224,686,269.57	104,291,936.26	329,050,521.84	1,216,544,853.81
Including: cash and cash equivalents	13,093,261.40	12,121,675.22	2,661,192.07	5,790,650.42	170,695,690.81	3,043,428.29
Non-current assets	124,334,737.92	670,813,509.02	211,941.01	120,772,335.02	532,119,706.26	372,452.53
Total assets	308,741,994.59	911,456,149.07	1,224,898,210.58	225,064,271.28	861,170,228.10	1,216,917,306.34
Current liabilities	146,164,528.47	110,497,171.18	117,580,080.68	59,617,373.35	50,454,781.30	81,767,631.86
Non-current liabilities		485,313,285.10	1,064,499,458.59		517,792,000.00	1,089,499,458.39
Total liabilities	146,164,528.47	595,810,456.28	1,182,079,539.27	59,617,373.35	568,246,781.30	1,171,267,090.25
Minority interests						
Equity attributable to shareholders of the parent	162,577,466.12	315,645,692.79	42,818,671.31	165,446,897.93	292,923,446.80	45,650,216.09
Share in net assets at shareholding percentage	54,463,451.15	31,564,569.28	19,268,402.09	55,424,710.81	29,292,344.68	20,542,597.23
Adjustments						
Including: Goodwill						
Unrealized profit on inter-company Others		-816,042.33				
Book value of equity interests in associates	54,463,451.15	30,748,526.95	19,268,402.09	55,424,710.81	29,292,344.68	20,542,597.23
Fair value of equity interests in associates with public quotations						
Operating revenue	193,729,473.16	115,979,510.13	-52,540,240.00	133,430,378.62	103,277,168.29	-199,226,770.45
Finance expense	2,384,949.39	27,753,532.38		1,455,537.58	21,536,669.63	-7,202.29
Income tax expense	508,544.04	1,967,395.75		200,619.06	3,492,120.09	
Net profit	3,743,213.31	14,561,822.66	9,310,149.70	5,419,508.64	12,941,507.08	-2,868,574.55
Net profit on discontinued operations						
Other comprehensive income						
Total comprehensive income	3,743,213.31	14,561,822.66	9,310,149.70	5,419,508.64	12,941,507.08	-2,868,574.55
Dividends paid by associates during the period						



SECTION 10 FINANCIAL REPORT

7 EQUITY IN OTHER ENTITIES (CONTINUED)

7.2 Interests in joint ventures and associates (continued)

5. Summarized financial information of insignificant joint ventures and associates

Item	Closing balance/ Amount incurred for the current period	Opening balance/ Amount incurred for the previous period
I. Joint ventures		
Aggregate of book value of investments	236,291.77	
Aggregate of proportional shares in:		
Net profit	-203,790.68	
Other comprehensive income		
Total comprehensive income	-203,790.68	
II. Associates		
Aggregate of book value of investments	572,830,582.41	676,300,673.34
Aggregate of proportional shares in:		
Net profit	9,357,627.16	817,765.16
Other comprehensive income		
Total comprehensive income	9,357,627.16	817,765.16

SECTION 10 FINANCIAL REPORT

8 FINANCIAL INSTRUMENT RELATED RISKS

The Company's major financial instruments include various equity investments, debt investments, derivative financial instruments, long-term and short-term borrowings, receivables and payables. See relevant sections of this report for details on financial instruments. Risks associated with the above financial instruments and risk management policies adopted by the Company to reduce these risks are set out below. Management manages and monitors these risk exposures to ensure that the above risks are controlled within the prescribed range.

1. Credit risk

Main risks associated with the Company's financial instruments include credit risk, liquidity risk and market risk. Management has reviewed and approved policies intended to manage these risks, which are summarized as follows:

Credit risk refers to the risk that one party to a financial instrument fails to perform its obligation, causing financial losses to the other party. The Company's credit risk mainly involves receivables.

Specific measures to control this risk are as follows:

The Company's accounts receivable are mainly generated from the engineering construction business. The Company's internal control system requires that the Company perform credit assessment on each client before submitting a bid and if the construction lasts over one year, reperform the credit assessment on a regular basis. Based on its contract review system, the project management department, the financial department, the legal department and other departments jointly review the contract to determine reasonable payment terms so as to minimize our advance risk. Operating cashflows linked performance indicators are in place to urge subsidiaries to speed up collection of receivables. The Company reviews the collection of receivables on an individual basis on the balance sheet date and requires additional guarantee in respect of key accounts associated with potential structural risks to ensure adequate provision for bad debt for unrecoverable receivables. See section "3.11" above for our expected credit loss policies.

SECTION 10 FINANCIAL REPORT

8 FINANCIAL INSTRUMENT RELATED RISKS (CONTINUED)

2. Liquidity risk

Liquidity risk refers to the risk that the Company is short of funds when performing its settlement obligations by delivery of cash or other financial assets.

The financial department continuously monitors the Company's short-term and long-term fund requirements to maintain adequate cash reserve. The Company utilizes multiple financing means including notes, bank borrowings and entrusted loans to maintain the balance between sustainability and flexibility of financing. The Company has obtained credit lines from several commercial banks with higher credit ratings to meet its demand for working capital and capital expenditure. Management monitors the use of bank borrowings and ensures compliance with loan agreements.

The following table analyses the Company's non-derivative financial liabilities to be paid on a net basis by relevant maturity groups during the remaining period from the balance sheet date to the contract maturity date. The amount disclosed in the table is the undiscounted contract cash flow. As the impact of discounting is not significant, the balance due within twelve months is equal to its carrying balance.

Unit: RMB'000

Item	Closing balance				Total
	Within one year	One to two years	Two to five years	Above five years	
Borrowings	6,057,421.20	3,914,019.33	2,196,200.00	5,905,106.00	18,072,746.52
Trade and other payables (excluding non-financial liabilities)	23,396,278.98	1,761.72			23,398,040.70
Dividend payables					
Maximum amount guaranteed by the issued financial guarantee	7,500.00	2,000.00		662,862.84	672,362.84

SECTION 10 FINANCIAL REPORT

8 FINANCIAL INSTRUMENT RELATED RISKS (CONTINUED)

2. Liquidity risk (Continued)

Item	Within one year	One to two years	Opening balance Two to five years	Above five years	Total
Borrowings	6,537,909.13	1,044,200.00	4,453,400.00	2,731,106.00	14,766,615.12
Trade and other payables (excluding non-financial liabilities)	23,161,932.97	2,602.60			23,164,535.57
Dividend payables					
Maximum amount guaranteed by the issued financial guarantee	369,300.00	65,000.00	364,000.00	802,467.60	1,600,767.60

3. Market risk

Market risk refers to the risk that the fair value or future cash flow of financial instruments fluctuate as market prices changes, including exchange rate risk, interest rate risk and other price risks.

- (1) Exchange rate risk refers to the risk that the fair value or future cash flow of financial instruments fluctuate due to changes in foreign exchange rates. The Company's exchange rate risk mainly comes from financial instruments denominated in foreign currencies other than the functional currency.
- (2) Interest rate risk refers to the risk that the fair value or future cash flow of financial instruments fluctuate due to changes in market interest rates. The Company's interest rate risk mainly comes from recognized interest-bearing financial instruments.
- (3) Other price risks refer to the risk of fluctuations caused by changes in market prices other than exchange rate risks and interest rate risks, whether arising from factors related to a single financial instrument or its issuer, or from factors related to all similar financial instruments traded on the market.

SECTION 10 FINANCIAL REPORT

9 CAPITAL MANAGEMENT

The capital management policies of the Company are made to ensure the continuous operation of the Company, in order to provide returns to shareholders and benefits to other stakeholders and to maintain the optimum capital structure for minimizing capital costs.

In order to maintain or adjust the capital structure, the Company may adjust dividends paid to shareholders, return capital to shareholders, issue new shares or dispose of assets to reduce its debts.

The Company monitors its capital structure on the basis of gearing ratio. This ratio is calculated as net debt divided by total capital. Net debts are calculated as the total borrowings and other liabilities (including borrowings, other non-current liabilities and trade and other payables, as shown in the consolidated balance sheet) less restricted cash, time deposits and cash and cash equivalents. Total capital is calculated as equity, as shown in the consolidated balance sheet, plus net debt less non-controlling interest. The Company aims to maintain the gearing ratio at 60% to 90%.

The Company monitors capital management by using the gearing ratio which is shown as follows:

Unit: RMB'000

Item	Closing balance	Opening balance
Total borrowings and other liabilities	41,604,569.56	38,093,767.52
Less: Restricted cash, time deposits and cash and cash equivalent	898,492.29	731,256.18
Net debts	40,706,077.27	37,362,511.34
Total equity attributable to equity owners of the Company	7,637,117.76	8,733,074.25
Total capital	48,343,195.03	46,095,585.60
Gearing ratio	84.20%	81.05%

SECTION 10 FINANCIAL REPORT

10 FAIR VALUE

10.1 Analysis of assets and liabilities measured at fair value by the level of fair value

Item	Level 1 fair value measurement	Level 2 fair value measurement	Level 3 fair value measurement	Closing balance
I. Continuous fair value measurement	–	730,574,231.09	60,349,494.75	790,923,725.84
(I) Financial assets classified FVTPL for the year			18,900,000.00	18,900,000.00
(1) Debt instrument investment				
(2) Equity instrument investment			18,900,000.00	18,900,000.00
(II) Financial assets classified FVTOCI	–	730,574,231.09	41,449,494.75	772,023,725.84
(1) Debt instrument investment		730,574,231.09		730,574,231.09
(2) Equity instrument investment			41,449,494.75	41,449,494.75
(III) Financial liabilities classified FVTPL				
(1) Derivative financial liabilities				
II. Non-continuous fair value measurement				
(I) Held-for-sale assets				

10.2 At the end of the reporting period, the Company's financial instruments measured at fair value were its subordinated shares in ABS and equity investments in small-scale entities, which do not have observable market quotations. The Company valuate such investments based on their future cash inflows. Under limited circumstances, if insufficient recent information is available to determine the fair value, or possible estimated amount of the fair value is widely distributed, and the cost represents the best estimate of the fair value within the range of distribution, the cost may represent an appropriate estimate of the fair value within the distribution range.



SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS

11.1 Parent of the Company

Parent	Place of incorporation	Business scope	Registered capital (RMB)	Percentage of shareholding in the Company (%)	Percentage of voting right in the Company (%)
China Aluminum Group Limited	PRC	Mineral resources (excluding oil and natural gas) development, nonferrous metal smelting and processing, related trading and engineering and technical services	25,200,000,000.00	76.50	76.50

Note: The ultimate controlling party of the Company is Chinalco (which is owned and controlled by SASAC). On 31 December 2020, Chinalco directly held 73.56% equity interest in the Company and indirectly held 2.94% equity interest in the Company through its subsidiary, Luoyang Institute. Chinalco held in aggregate a 76.50% equity interest in the Company.

11.2 Particulars of subsidiaries of the Company

For details, see Note “7. Interests in Other Entities”.

11.3 Particulars of joint ventures and associates of the Company

For details of important joint ventures or associates of the Company, see Note “7. Interests in Other Entities”.

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.4 Particulars of other parties related to the Company

Other related party	Relationship between other related parties and the Company
China Aluminum Group Limited	Ultimate controlling parent
Luoyang Engineering & Research Institute for Nonferrous Metals Processing	Our shareholder, ultimately controlled by the same parent
Guangxi Hualei Advanced Materials Co., Ltd.	A joint venture of our parent
Chinalco Zibo International Trade Co., Ltd.	A joint venture of our parent
Zhejiang Chinalco Automobile Lightweight Technology Co., Ltd.	ultimately controlled by the same parent
Chinalco Material Application Research Institute Co., Ltd.	ultimately controlled by the same parent
Chinalco Innovation Development Investment Co., Ltd.	ultimately controlled by the same parent
Chinalco Overseas Development Co., Ltd.	ultimately controlled by the same parent
Beijing Lvneng Clean Environment Technology Co., Ltd.	ultimately controlled by the same parent
Chinalco Environmental Protection and Energy Saving Group Co., Ltd.	ultimately controlled by the same parent
Chalco Tendering Company Limited	An associate of our parent
Henan Jiuli Technology Co., Ltd.	ultimately controlled by the same parent
Chinalco Intelligent Technology Development Co., Ltd.	ultimately controlled by the same parent
Aluminum Corporation of China Limited	ultimately controlled by the same parent
Baotou Aluminum Co., Ltd.	ultimately controlled by the same parent
Chibi Great Wall Carbon Products Co., Ltd.	ultimately controlled by the same parent
Fushun Aluminum Co., Ltd.	ultimately controlled by the same parent
Gansu Hualu Aluminum Co., Ltd.	ultimately controlled by the same parent
Guangxi Huasheng Advanced Materials Co., Ltd.	ultimately controlled by the same parent
Guizhou Huajin Aluminum Co., Ltd.	ultimately controlled by the same parent
Guizhou Huaren Advanced Materials Co., Ltd.	ultimately controlled by the same parent
Henan Huahui Nonferrous Engineering Design Co., Ltd.	ultimately controlled by the same parent
Henan Chinalco State Reserve Energy Co., Ltd.	ultimately controlled by the same parent
Lanzhou Aluminum Co., Ltd.	ultimately controlled by the same parent
Inner Mongolia Huayun New Materials Co., Ltd.	ultimately controlled by the same parent
Shandong Huayu Alloy Material Co., Ltd.	ultimately controlled by the same parent
Shandong Yixing Carbon New Material Co., Ltd.	ultimately controlled by the same parent
Shanxi Huaxing Aluminum Co., Ltd.	ultimately controlled by the same parent
Shanxi Chinalco Resources Co., Ltd.	ultimately controlled by the same parent
Chalco Hong Kong Limited	ultimately controlled by the same parent
China Aluminum (Shanghai) Co., Ltd.	ultimately controlled by the same parent
China Aluminum International Trading Corporation Limited	ultimately controlled by the same parent
Chinalco International Trade Hong Kong Limited	ultimately controlled by the same parent
Chinalco Group Shanxi Jiaokou Xinghua Science and Technology Co., Ltd.	ultimately controlled by the same parent
Chinalco Mining Corporation Limited	ultimately controlled by the same parent

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.4 Particulars of other parties related to the Company (continued)

Other related party	Relationship between other related parties and the Company
Chinalco Ningxia Energy Group Co., Ltd.	ultimately controlled by the same parent
Chinalco Qingdao Light Metal Co., Ltd.	ultimately controlled by the same parent
Chinalco Shandong Environmental Protection Technology Co., Ltd.	ultimately controlled by the same parent
Chinalco Shandong Advanced Materials Co., Ltd.	ultimately controlled by the same parent
Chalco Shandong Co., Ltd.	ultimately controlled by the same parent
Chinalco Shanxi Advanced Materials Co., Ltd.	ultimately controlled by the same parent
Chinalco Logistics Group Southeast Asia Land Port Co., Ltd.	ultimately controlled by the same parent
Chinalco Logistics Group Northwest Land Port Co., Ltd.	ultimately controlled by the same parent
Chinalco Logistics Group Co., Ltd.	ultimately controlled by the same parent
Chinalco Logistics Group Central Land Port Co., Ltd.	ultimately controlled by the same parent
Chinalco Material Supply and Marketing Co., Ltd.	ultimately controlled by the same parent
Chinalco Materials Co., Ltd.	ultimately controlled by the same parent
Chinalco Zhengzhou Nonferrous Metals Research Institute Co., Ltd.	ultimately controlled by the same parent
Chinalco Zhongzhou Mining Co., Ltd.	ultimately controlled by the same parent
Chinalco Zhongzhou Aluminum Co., Ltd.	ultimately controlled by the same parent
Chinalco Zhongzhou Advanced Materials Technology Co., Ltd.	ultimately controlled by the same parent
Zunyi Aluminum Co., Ltd.	ultimately controlled by the same parent
Chinalco Finance Company Limited	ultimately controlled by the same parent
Northeast Light Alloy Co., Ltd.	ultimately controlled by the same parent
Harbin Dongqing Special Materials Co., Ltd.	ultimately controlled by the same parent
Northwest Aluminum Co., Ltd.	ultimately controlled by the same parent
Southwest Aluminum (Group) Co., Ltd.	ultimately controlled by the same parent
Chongqing Southwest Aluminum Mechanical and Electrical Equipment Engineering Co., Ltd.	ultimately controlled by the same parent
Chongqing Southwest Aluminum Transportation Co., Ltd.	ultimately controlled by the same parent
Chinalco Henan Luoyang Aluminum Foil Co., Ltd.	ultimately controlled by the same parent
Chinalco Henan Luoyang Aluminum Processing Co., Ltd.	ultimately controlled by the same parent
Longxi Northwest Aluminum Foil Co., Ltd.	ultimately controlled by the same parent
Chinalco Ruimin Co., Ltd.	ultimately controlled by the same parent
Chinalco Sapa Special Aluminum (Chongqing) Co., Ltd.	ultimately controlled by the same parent
Chinalco Shenyang Nonferrous Metal Processing Co., Ltd.	ultimately controlled by the same parent
Chinalco Southwest Aluminum Strip Co., Ltd.	ultimately controlled by the same parent
Chifeng Yuntong Nonferrous Metals Co., Ltd.	ultimately controlled by the same parent
Chuxiong Dianzhong Nonferrous Metals Co., Ltd.	ultimately controlled by the same parent
Fumin Xinye Industrial and Trade Co., Ltd.	ultimately controlled by the same parent
Heqing Yixin Aluminum Co., Ltd.	ultimately controlled by the same parent
Honghe Yuntong Real Estate Development Co., Ltd.	ultimately controlled by the same parent
Hulun Buir Chihong Mining Co., Ltd.	ultimately controlled by the same parent

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.4 Particulars of other parties related to the Company (continued)

Other related party	Relationship between other related parties and the Company
Huili County Wulong Fumin Mining Co., Ltd.	ultimately controlled by the same parent
Kunming Kehui Electric Co., Ltd.	ultimately controlled by the same parent
Kunming Nonferrous Metallurgical Design and Research Institute Corporation	ultimately controlled by the same parent
Lhasa Tianli Mining Co., Ltd.	ultimately controlled by the same parent
Liangshan Mining Co., Ltd.	ultimately controlled by the same parent
Qinghai Hongxin Mining Co., Ltd.	ultimately controlled by the same parent
Qinghai Zerong Mining Development Co., Ltd.	ultimately controlled by the same parent
Qujing Yunal Ganxin Aluminum Co., Ltd.	ultimately controlled by the same parent
Shanghai Huxin Aluminum Foil Co., Ltd.	ultimately controlled by the same parent
Shangri-la Dingli Mining Co., Ltd.	ultimately controlled by the same parent
Yimen Copper Co., Ltd.	ultimately controlled by the same parent
Yuxi Mining Co., Ltd.	ultimately controlled by the same parent
Yunnan Chihong Zinc Germanium Co., Ltd.	ultimately controlled by the same parent
Yunnan Chihong Resources Comprehensive Utilization Co., Ltd.	ultimately controlled by the same parent
Yunnan Chuxiong Mining and Metallurgy Co., Ltd.	ultimately controlled by the same parent
Yunnan Diqing Mining Development Co., Ltd.	ultimately controlled by the same parent
Yunnan Diqing Nonferrous Metals Co., Ltd.	ultimately controlled by the same parent
Yunnan Haoxin Aluminum Foil Co., Ltd.	ultimately controlled by the same parent
Yunnan Jinding Zinc Industry Co., Ltd.	ultimately controlled by the same parent
Yunnan Jinsha Mining Co., Ltd.	ultimately controlled by the same parent
Yunnan Aluminum Co., Ltd.	ultimately controlled by the same parent
Yunnan Copper (Group) Titanium Co., Ltd.	ultimately controlled by the same parent
Yunnan Copper (Group) Co., Ltd.	ultimately controlled by the same parent
Yunnan Copper Real Estate Development Co., Ltd.	ultimately controlled by the same parent
Yunnan Copper Co., Ltd.	ultimately controlled by the same parent
Yunnan Copper Technology Development Co., Ltd.	ultimately controlled by the same parent
Yunnan Copper Mineral Resources Exploration and Development Co., Ltd.	ultimately controlled by the same parent
Yunnan Copper Die Casting Technology Co., Ltd.	ultimately controlled by the same parent
Yunnan Wenshan Aluminum Co., Ltd.	ultimately controlled by the same parent
Yunnan Xiping Jinhui Mining Development Co., Ltd.	ultimately controlled by the same parent
Yunnan Metallurgical Kunming Heavy Industry Co., Ltd.	ultimately controlled by the same parent
Yunnan Yongshun Aluminum Co., Ltd.	ultimately controlled by the same parent
Yunnan Yunlv Haixin Aluminum Co., Ltd.	ultimately controlled by the same parent
Yunnan Yunlv Huixin Trade Co., Ltd.	ultimately controlled by the same parent
Yunnan Yunlv Yongxin Aluminum Co., Ltd.	ultimately controlled by the same parent
Yunnan Yunlv Zexin Aluminum Co., Ltd.	ultimately controlled by the same parent
Yunnan Yuntong Zinc Co., Ltd.	ultimately controlled by the same parent

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.4 Particulars of other parties related to the Company (continued)

Other related party	Relationship between other related parties and the Company
Chinalco Huazhong Copper Co., Ltd.	ultimately controlled by the same parent
Chinalco Luoyang Copper Processing Co., Ltd.	ultimately controlled by the same parent
Chinalco Luoyang Copper Co., Ltd.	ultimately controlled by the same parent
Minera Chinalco Peru	ultimately controlled by the same parent
China Copper Southeast Copper Co., Ltd.	ultimately controlled by the same parent
China Copper Tibet Mining Co., Ltd.	ultimately controlled by the same parent
Guangxi Guosheng Rare Earth Advanced Materials Co., Ltd.	ultimately controlled by the same parent
Guangxi Rare Earth Trading Co., Ltd.	ultimately controlled by the same parent
Chinalco Guangxi Nonferrous Rare Earth Development Co., Ltd.	ultimately controlled by the same parent
CRE (Changshu) Rare Earth Advanced Materials Co., Ltd.	ultimately controlled by the same parent
China Rare Earth International Trade Co., Ltd.	ultimately controlled by the same parent
Baotou Aluminum (Group) Co., Ltd.	ultimately controlled by the same parent
Chinalco Science and Technology Research Institute Co., Ltd.	ultimately controlled by the same parent
Guangxi Chinalco Industrial Service Co., Ltd.	ultimately controlled by the same parent
Guizhou Guilv Huayi Real Estate Development Co., Ltd.	ultimately controlled by the same parent
Guizhou Aluminum Factory Co., Ltd.	ultimately controlled by the same parent
Guizhou Chinalco Colored Aluminum Technology Co., Ltd.	ultimately controlled by the same parent
Henan Great Wall Information Technology Co., Ltd.	ultimately controlled by the same parent
Henan Changalv Industrial Service Co., Ltd.	ultimately controlled by the same parent
Henan Changxing Industry Co., Ltd.	ultimately controlled by the same parent
Henan Chinalco Engineering Construction Co., Ltd.	ultimately controlled by the same parent
Henan Chinalco Equipment Co., Ltd.	ultimately controlled by the same parent
Henan Zhongzhou Aluminum Factory Co., Ltd.	ultimately controlled by the same parent
Jinlv Real Estate Development Co., Ltd.	ultimately controlled by the same parent
Lanzhou Aluminum Factory Co., Ltd.	ultimately controlled by the same parent
Lanzhou Chinalco Industrial Service Co., Ltd.	ultimately controlled by the same parent
Pingguo Aluminum Co., Ltd.	ultimately controlled by the same parent
Qinghai Chinalco Aluminum Strip Co., Ltd.	ultimately controlled by the same parent
Shandong Aluminum Industry Limited	ultimately controlled by the same parent
Shandong Shanlv Environmental Advanced Materials Co., Ltd.	ultimately controlled by the same parent
Shandong Shanlv Electromechanical Technology Co., Ltd.	ultimately controlled by the same parent
Shanxi Chalco Industrial Service Co., Ltd.	ultimately controlled by the same parent
Suzhou Xinchang Light and Heat Energy Technology Co., Ltd.	ultimately controlled by the same parent
Suzhou Nonferrous Metal Design and Research Institute Co., Ltd.	ultimately controlled by the same parent
Zhengzhou Chinalco Construction and Development Co., Ltd.	ultimately controlled by the same parent
China Great Wall Aluminum Corporation Limited	ultimately controlled by the same parent
Chinalco Industrial Service Co., Ltd.	ultimately controlled by the same parent

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.4 Particulars of other parties related to the Company (continued)

Other related party	Relationship between other related parties and the Company
Chinalco Investment Management Co., Ltd.	ultimately controlled by the same parent
Zibo Dadi Real Estate Development Co., Ltd.	ultimately controlled by the same parent
Zibo Dongshan Industry Co., Ltd.	ultimately controlled by the same parent
Taiyuan China Nonferrous Metal Industry and 12th Metallurgical Real Estate Development Co., Ltd.	ultimately controlled by the same parent
Chongqing Shangjiangchen Real Estate Co., Ltd.	ultimately controlled by the same parent
Chinalco Commercial Factoring (Tianjin) Co., Ltd.	ultimately controlled by the same parent

11.5 Connected transactions

1. Connected transactions on procurement and acceptance of goods and rendering and acceptance of service

Related party	Type of connected transaction	Particular of connected transaction	Pricing policies and decision procedures	Amount incurred for the current period
A subsidiary of China Aluminum Group	Sales of goods and rendering of service	Provide engineering construction services	Negotiated between the parties by reference to market price	1,455,558,267.17
A subsidiary of China Aluminum Group	Sales of goods and rendering of service	Provide engineering design services	Negotiated between the parties by reference to market price	144,068,386.66
A subsidiary of China Aluminum Group	Sales of goods and rendering of service	Provide equipment manufacturing and sales	Negotiated between the parties by reference to market price	186,135,836.61
A subsidiary of China Aluminum Group	Sales of goods and rendering of service	Back-up service and other business	Negotiated between the parties by reference to market price	5,105,212.91
An associate of our parent	Sales of goods and rendering of service	Provide engineering design services	Negotiated between the parties by reference to market price	2,890,566.04
An associate of our parent	Sales of goods and rendering of service	Back-up service and other business	Negotiated between the parties by reference to market price	12,063.87
A joint venture of China Aluminum Group	Sales of goods and rendering of service	Provide engineering construction services	Negotiated between the parties by reference to market price	10,251,131.35
A subsidiary of China Aluminum Group	Procurement of goods and acceptance of service	Engineering, construction and supervision service	Negotiated between the parties by reference to market price	21,499,784.86
A subsidiary of China Aluminum Group	Procurement of goods and acceptance of service	Procurement of main materials and auxiliary materials	Negotiated between the parties by reference to market price	40,242,781.67
A subsidiary of China Aluminum Group	Procurement of goods and acceptance of service	Back-up service and other business	Negotiated between the parties by reference to market price	13,551,834.30
An associate of our parent	Procurement of goods and acceptance of service	Engineering, construction and supervision service	Negotiated between the parties by reference to market price	12,131,538.89

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.5 Connected transactions (continued)

1. Connected transactions on procurement and acceptance of goods and rendering and acceptance of service (continued)

Related party	Type of connected transaction	Particular of connected transaction	Pricing policies and decision procedures	Amount incurred for the current period
A subsidiary of China Aluminum Group	Sales of goods and rendering of service	Provide engineering construction services	Negotiated between the parties by reference to market price	3,087,165,904.45
A subsidiary of China Aluminum Group	Sales of goods and rendering of service	Provide engineering construction services	Negotiated between the parties by reference to market price	205,922,033.80
A subsidiary of China Aluminum Group	Sales of goods and rendering of service	Provide engineering design services	Negotiated between the parties by reference to market price	442,568,272.18
A subsidiary of China Aluminum Group	Sales of goods and rendering of service	Back-up service and other business	Negotiated between the parties by reference to market price	2,709,668.31
A joint venture of China Aluminum Group	Sales of goods and rendering of service	Provide engineering design services	Negotiated between the parties by reference to market price	320,634.02
A subsidiary of China Aluminum Group	Procurement of goods and acceptance of service	Engineering, construction and supervision service	Negotiated between the parties by reference to market price	23,825,549.65
A subsidiary of China Aluminum Group	Procurement of goods and acceptance of service	Procurement of main materials and auxiliary materials	Negotiated between the parties by reference to market price	46,020,973.20
A subsidiary of China Aluminum Group	Procurement of goods and acceptance of service	Back-up service and other business	Negotiated between the parties by reference to market price	13,372,070.34
An associate of our parent	Procurement of goods and acceptance of service	Engineering, construction and supervision service	Negotiated between the parties by reference to market price	1,021,795.87
An associate of our parent	Procurement of goods and acceptance of service	Procurement of main materials and auxiliary materials	Negotiated between the parties by reference to market price	549,073.59

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.5 Connected transactions (continued)

2. Related party leases

Lessor	Lessee	Leasehold	Leasing income/ expenses recognized for the period	Leasing income/ expenses recognized in the previous period
China Aluminum (Shanghai) Co., Ltd.	China Aluminum International Engineering & Equipment Co., Ltd.	Housing		2,227,065.56
Chalco Shandong Co., Ltd.	Chalco Shandong Engineering Technology Co., Ltd.	Housing	55,018.23	577,010.91
Luoyang Engineering & Research Institute for Nonferrous Metals Processing	China Nonferrous Metals Processing Technology Co., Ltd.	Housing		1,586,158.16
Suzhou Nonferrous Metal Design and Research Institute Co., Ltd.	China Nonferrous Metals Processing Technology Co., Ltd.	Housing	1,567,750.27	260,084.29
Hunan Changkan Business Development Co., Ltd.	China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd.	Housing	556,703.13	
Zhengzhou Chinalco Construction and Development Co., Ltd.	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Housing	633,942.84	
Total	-	-	2,813,414.47	4,650,318.92

(continued)

Lessor	Lessee	Leasehold	Income recognized for the period	Lease income recognized in the previous period
China Aluminum Great Wall Construction Co., Ltd.	Chinalco Mining Corporation Limited	Land	846,418.30	846,418.29
Total	-	-	846,418.30	846,418.29

3. Related party guarantees

Guarantor	Guaranteed party	Guarantee amount	Guarantee starting on	Guarantee ending on	Guarantee performed or not
China Aluminum Group Limited	China Aluminum International Engineering Corporation Ltd.	1,500,000,000.00	30 October 2019	Bond redemption date	No

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.5 Connected transactions (continued)

4. Borrowing from and lending to related parties

Related party	Borrowing/lending	Amount	Starting date	Expiry date	Remarks
Chinalco Finance Company Limited	Borrowing	400,000,000.00	31 August 2021	30 August 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	300,000,000.00	31 August 2021	30 August 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	450,000,000.00	31 December 2021	30 December 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	250,000,000.00	31 August 2021	30 August 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	50,000,000.00	31 August 2021	August 202230	Direct borrowing
Chinalco Finance Company Limited	Borrowing	300,000,000.00	1 March 2021	1 March 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	50,000,000.00	29 June 2021	28 June 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	50,000,000.00	8 July 2021	7 July 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	100,000,000.00	27 July 2021	26 July 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	100,000,000.00	20 October 2021	19 October 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	70,000,000.00	20 December 2021	19 December 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	92,000,000.00	22 December 2021	21 December 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	10,000,000.00	15 October 2021	14 October 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	90,000,000.00	3 August 2021	2 August 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	50,000,000.00	21 July 2021	22 July 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	50,000,000.00	29 July 2021	28 July 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	50,000,000.00	13 September 2021	12 September 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	50,000,000.00	27 September 2021	26 September 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	300,000,000.00	17 May 2021	16 May 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	170,000,000.00	22 June 2021	21 June 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	100,000,000.00	27 October 2021	26 October 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	180,000,000.00	10 December 2021	9 December 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	30,000,000.00	1 April 2021	31 March 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	30,000,000.00	3 August 2021	2 August 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	40,000,000.00	24 November 2021	23 November 2022	Direct borrowing
Chinalco Finance Company Limited	Borrowing	599,000,000.00	1 March 2021	29 February 2024	Direct borrowing
China Aluminum Commercial Factoring (Tianjin) Co., Ltd.	Borrowing	140,000,000.00	29 March 2020	21 September 2022	Direct borrowing
Chinalco Finance Company Limited	Provide deposit service	3,940,930,579.20	-	-	Deposits
Total	-	8,041,930,579.20	-	-	-

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.5 Connected transactions (continued)

5. Remuneration of key management

Remuneration of key management	Amount incurred for the current period	Amount incurred for the previous period
Total	5,348,198.00	4,685,161.49

11.6 Receivables from and payable to related parties

1. Receivables

Item	Related party	Closing balance		Opening balance	
		Carrying amount	provision for bad debt	Carrying amount	provision for bad debt
Accounts receivable	A subsidiary of China Aluminum Group	1,920,726,222.41	226,053,879.99	3,099,594,984.87	216,717,405.74
Accounts receivable	A joint venture of China Aluminum Group	80,653,597.93	956,521.48	88,184,313.95	3,362,761.89
Accounts receivable	An associate of China Aluminum Group	1,924,667.01	507,123.34	5,362,178.82	1,658,523.41
Accounts receivable	An associate of our parent	505,860,407.02	3,451,125.58	572,382,188.83	11,648,285.90
Subtotal	-	2,509,164,894.37	230,968,650.39	3,765,523,666.47	233,386,976.94
Other receivable	A subsidiary of China Aluminum Group	125,905,447.65	17,342,922.13	43,337,451.86	5,834,933.99
Other receivable	A joint venture of China Aluminum Group	400,000.00	115,138.00	205,400.00	58,627.00
Other receivable	An associate of China Aluminum Group	40,000.00	20,000.00	20,414,897.05	2,414,897.05
Other receivable	A joint venture of the Company	59,138.00	29,321.40	57,900.00	17,370.00
Other receivable	An associate of our parent	23,571,556.85	23,259,203.97	8,888,593.11	164,177.18
Subtotal	-	149,976,142.50	40,766,585.50	72,904,242.02	8,490,005.22
Prepayment	A subsidiary of China Aluminum Group	8,750,937.59		5,368,157.03	
Prepayment	An associate of China Aluminum Group	3,011,902.00			
Prepayment	A joint venture of the Company	8,560,801.00			
Prepayment	An associate of our parent	3,649,581.70		2,126,269.60	
Subtotal	-	23,973,222.29	-	7,494,426.63	
Total	-	2,683,114,259.16	271,735,235.89	3,845,922,335.12	241,876,982.16



SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.6 Receivables from and payable to related parties (continued)

2. Payables

Item	Related party	Closing balance	Opening balance
Account payable	A subsidiary of China Aluminum Group	78,462,269.35	151,887,587.25
Account payable	A joint venture of China Aluminum Group	—	1,927,052.12
Account payable	An associate of China Aluminum Group	4,661,286.77	5,699,206.16
Account payable	A joint venture of the Company	13,246,547.89	19,857,187.17
Account payable	An associate of our parent	8,248,853.27	10,047,584.24
Subtotal	—	104,618,957.28	189,418,616.94
Other payable	A subsidiary of China Aluminum Group	49,141,437.41	57,756,850.47
Other payable	An associate of China Aluminum Group	12,000.00	699,680.00
Other payable	A joint venture of the Company	244,600.00	235,000.00
Other payable	An associate of our parent	1,000,000.00	1,148,553.26
Subtotal	—	50,398,037.41	59,840,083.73
Short-term loans	A subsidiary of China Aluminum Group	2,024,736.08	1,342,141.64
Non-current liabilities due within one year	A subsidiary of China Aluminum Group	832,039.30	528,991.92
Subtotal	—	2,856,775.38	1,871,133.56
Total	—	157,873,770.07	251,129,834.23

SECTION 10 FINANCIAL REPORT

11 RELATED PARTIES AND THEIR TRANSACTIONS (CONTINUED)

11.7 Contract assets and contract liabilities of related parties

1. Contract assets

Related party	Closing balance		Opening balance	
	Carrying amount	Provision for impairment	Carrying amount	Provision for impairment
A subsidiary of China Aluminum Group	818,864,202.61	20,624,810.80	127,508,497.38	638,053.55
A joint venture of China Aluminum Group	378,217.99	1,891.10	39,985,879.82	2,126,479.50
An associate of China Aluminum Group	200,000.01	1,000.00	2,598,000.00	12,990.00
An associate of our parent	563,246,814.71	2,816,234.08	329,011,675.46	1,645,058.38
Total	1,382,689,235.32	23,443,935.98	499,104,052.66	4,422,581.43

2. Contract liabilities

Related party	Closing balance	Opening balance
A subsidiary of China Aluminum Group	331,078,663.68	315,263,984.68
A joint venture of China Aluminum Group	15,195,926.27	16,484,113.11
An associate of China Aluminum Group	—	1,000,000.00
An associate of our parent	7,323,133.97	76,865,367.14
Total	353,597,723.92	409,613,464.93

SECTION 10 FINANCIAL REPORT

12 COMMITMENTS OR CONTINGENCIES

12.1 Commitments

The Company and Yunnan Transportation Investment Construction Group Co., Ltd. ("Yunnan Transportation Investment") jointly formed a non-government equity investor to work together with the local governments to invest in and establish three project companies, namely Yunnan Ningyong Expressway Co., Ltd. ("Ningyong Expressway"), Yunnan Linyun Expressway Co., Ltd. ("Linyun Expressway") and Yunnan Linshuang Expressway Co., Ltd. ("Linshuang Expressway"), for the construction and operation of the said expressways under PPP mode. The shareholding of the Company, Yunnan Transportation Investment and the investment vehicle designated by the local governments in the three PPP project companies was 30%, 40% and 30% respectively.

The capital structure of each project company is as follow:

The investment vehicle designated by local government contributed 30% of total project investment (of which RMB30 million is the registered capital and the rest is capital reserve). The Company and Yunnan Transportation Investment respectively contributed RMB30 million and RMB40 million as paid-in registered capital.

Meanwhile, the Company and Yunnan Transportation Investment provide credit enhancement for the difference between the total investment and the capital contribution in proportion to their relative shareholding (3:4), and are liable for the financing for the operation period on a 42.86%:57.14% basis. Each shareholder is liable for the financing for the operation period of the project company according to their shareholding proportion.

According to the relevant agreements, the Company is required to provide credit enhancement up to RMB4.559 billion, RMB3.19 billion and RMB2.086 billion (up to RMB9.835 billion in total) for investment loans granted to Ningyong Expressway, Linyun Expressway and Linshuang Expressway respectively, and issue a letter of undertaking for deficiency. The letter of undertaking for deficiency should be signed up to the above amounts respectively after negotiation with relevant creditors.

As of the date of approval of this report, the Company has actually issued the letter of undertaking and provided credit enhancement as follows:

Ningyong Expressway was granted a credit line of RMB11 billion by the bank, and the Company has issued a letter of undertaking for deficiency as to RMB9.347 billion or 42.86% of the credit line. The bank has actually granted a loan of RMB7.672 billion, and the Company has provided credit enhancement for RMB3.288 billion of the loan.

Linyun Expressway was granted a credit line of RMB10.1 billion by the bank, and the Company has issued a letter of undertaking for deficiency as to RMB6.0 billion or 42.86% of the credit line. The bank has actually granted a loan of RMB5.5 billion, and the Company has provided credit enhancement for RMB2.357 billion of the loan.

Linshuang Expressway was granted a credit line of RMB9.9 billion by the bank, and the Company has issued a letter of undertaking for deficiency as to RMB4.32 billion or 42.86% of the credit line. The bank has actually granted a loan of RMB3.37 billion, and the Company has provided credit enhancement for RMB1.444 billion of the loan.

SECTION 10 FINANCIAL REPORT

12 COMMITMENTS OR CONTINGENCIES (CONTINUED)

12.2 Contingencies

Significant pending litigation or arbitration

No.	Plaintiff/Applicant/ Appellant	Defendant/Respondent/Appellee	Cause	Amount claimed (RMB ten thousand)
1	China Aluminum International Engineering Corporation Ltd.	Qingdao Xinfu Co-creation Asset Management Co., Ltd. Shandong Real Estate Development Group Qingdao Company Liang Yongjian, Wang Xiaoning, Qingdao Liangyou Catering Co., Ltd.	other civil disputes	90,921.54
2	China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	Huainan Zhongsheng, Zhirongcheng, Beijing Chenglong, Ganzhou Hualong, Chen Quanhong (陳權宏)	Disputes over equity, equity transfer, joint venture cooperation, joint venture, etc.	75,199.00
3	Guiyang Aluminum and Magnesium Design Institute Construction Contracting Co., Ltd	Guizhou Huada Real Estate Development Co., Ltd.	Construction project contract disputes	51,729.85
4	Guiyang Branch of China Aluminum International Engineering Corporation Ltd.	Guizhou Huaren New Material Co., Ltd.	Construction project contract disputes	39,092.16
5	China Aluminum International Engineering & Equipment Co., Ltd.	Shandong Homerun Tires Co., Ltd Shandong Kemai Rubber Group Co., Ltd. Qingdao Fmax Tire Co., Ltd. Qingdao Zhonghaoxuan International Trade Co., Ltd.	Sales contract disputes	34,868.06
6	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Shougang Jingtang United Co., Ltd.	Construction project contract disputes	29,228.11
7	China Aluminum International Engineering Corporation Ltd.	Vietnam National Coal and Mineral Industries Group (TKV)	Construction project contract disputes	26,264.83
8	Guiyang Aluminum and Magnesium Design Institute Construction Contracting Co., Ltd.	Anshun Xixiu District Urban Investment Development Co., Ltd. Guizhou Huada Real Estate Development Co., Ltd.	Warranty Contract Disputes	25,775.00

SECTION 10 FINANCIAL REPORT

12 COMMITMENTS OR CONTINGENCIES (CONTINUED)

12.2 Contingencies (continued)

Significant pending litigation or arbitration (continued)

No.	Plaintiff/Applicant/ Appellant	Defendant/Respondent/Appellee	Cause	Amount claimed (RMB ten thousand)
9	China Aluminum International Engineering & Equipment Co., Ltd.	Xinjiang Jiarun Resources Holdings Co., Ltd.	Sales contract disputes	20,300.00
10	Chalieco (Tianjin) Construction Co., Ltd.	Tianjin Zijinshan Environmental Protection Industry Investment Co., Ltd. Tianjin Wuqing District Tianzi Environmental Protection Co., Ltd. Tianjin Jinghai Tianzi Sunshine Environmental Protection Co., Ltd. Tianzi Environmental Protection Investment Holdings Co., Ltd. Tianzi Environmental Protection Equipment Manufacturing (Tianjin) Co., Ltd. Huazhiyuan International Trade (Tianjin) Co., Ltd. Gaowei Huatianzi Environmental Protection Industry Development Co., Ltd.	Construction project contract disputes	17,669.55
11	Guizhou Huaren New Material Co., Ltd.	Chinalco International Guiyang Branch	Construction project contract disputes	14,523.36
12	China Mining Construction Group Ltd. Mianchi Branch	China Aluminum Zhongzhou Mining Co., Ltd. Sanmenxia Branch	Construction project contract disputes	12,906.00
13	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Yingkou Zhongwang Aluminum Co., Ltd.	Construction project contract disputes	12,786.60
14	China Fourth Metallurgical Construction Co., Ltd.	Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy	Construction project contract disputes	8,434.06
15	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry The First Branch of Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Henan Hongxuan Real Estate Co., Ltd.	Construction project contract disputes	7,953.70

SECTION 10 FINANCIAL REPORT

12 COMMITMENTS OR CONTINGENCIES (CONTINUED)

12.2 Contingencies (continued)

Significant pending litigation or arbitration (continued)

No.	Plaintiff/Applicant/ Appellant	Defendant/Respondent/Appellee	Cause	Amount claimed (RMB ten thousand)
16	Xi'an Geotechnical Engineering Co., Ltd. of China Nonferrous Metals Industry	Shenyang Branch of China Aluminum International Engineering Corporation Ltd.	Construction project contract disputes	7,539.50
17	China Aluminum International Shandong Chemical Industry Co., Ltd.	Huang Zhongqing (黃中慶), Huang Shunqing (黃順慶), Zhao Youjie (趙友傑), Shandong Jiate Plastic Packaging Co., Ltd., Huang Chunqing (黃春慶), Huang Feng (黃峰), Lin Yulei (林玉雷)	Sales contract disputes	7,461.06
18	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Kaili City Traffic Bureau, Kaili City Government	Construction project contract disputes	7,460.07
19	China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	China Aviation Oil Group Northern Storage and Transportation Co., Ltd.	Construction project contract disputes	7,286.80
20	Seventh Metallurgical Civil Engineering Co., Ltd.	Guiyang Aluminum and Magnesium Design and Research Institute Engineering Contracting Co., Ltd. Guiyang Aluminum-Magnesium Design and Research Institute Co., Ltd.	Construction project contract disputes	6,734.50
21	China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	Pilatus Aircraft Maintenance Engineering (Chongqing) Co., Ltd.	Construction project contract disputes	6,601.02
22	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Tianjin Zhongwang Aluminum Co., Ltd.	Construction project contract disputes	6,585.31

SECTION 10 FINANCIAL REPORT

12 COMMITMENTS OR CONTINGENCIES (CONTINUED)

12.2 Contingencies (continued)

Significant pending litigation or arbitration (continued)

No.	Plaintiff/Applicant/ Appellant	Defendant/Respondent/Appellee	Cause	Amount claimed (RMB ten thousand)
23	China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	Xi'an Coordinated Urban and Rural Construction Investment Development Co., Ltd., Xixian Investment Co., Ltd.	Loan contract disputes	6,320.00
24	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Xinjiang Kingho Investment Holdings Co., Ltd., Xinjiang Kingho Energy Group Co., Ltd.	Construction project contract disputes	6,136.02
25	Qiu Haijie, Zhang Jun, Guo Zhiming, and Zeng Minghai	Six Metallurgical Company, Hohhot Economic and Technological Development Zone, Boyuan Real Estate Company	Construction project contract disputes	6,095.49
26	Shanghai China Aluminum International Supply Chain Management Co., Ltd.	Shanghai Golden Elephant Aluminum Co., Ltd., Shanghai Zhongquan Investment Co., Ltd.	Sales contract disputes	5,836.77
27	China Aluminum Great Wall Construction Co., Ltd.	Changge Hongji Weiye Real Estate Development Co., Ltd.	Construction project contract disputes	5,621.55
28	Lv Yikui (吕宜奎)	Panjin Hetai Real Estate Development Co., Ltd., Shenyang Aluminum and Magnesium Design and Research Institute Co., Ltd., Liaoning Jindi Second Construction Engineering Co., Ltd.	Construction project contract disputes	5,600.00
29	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Zhonghe Anshan Shengshide Real Estate Co., Ltd.	Construction project contract disputes	5,500.00
30	China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	Taiyuan Jiaxin Zongli Real Estate Co., Ltd.	Construction project contract disputes	5,331.00
31	China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	Northern Heavy Industry Group Co., Ltd.	Construction project contract disputes	5,303.76
32	Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	Inner Mongolia Hengda Real Estate Co., Ltd.	Construction project contract disputes	5,208.36

SECTION 10 FINANCIAL REPORT

12 COMMITMENTS OR CONTINGENCIES (CONTINUED)

12.3 Guarantees

Hanzhong Ninth Metallurgical Construction Co., Ltd., a wholly-owned subsidiary of Ninth Metallurgical Company, which is in turn our subsidiary provides several and joint liability guarantee for Mian County Urban and Rural Infrastructure Construction Co., Ltd. in respect of a RMB100 million loan granted by Agricultural Development Bank of China which matures on 19 October 2027. As of December 31, 2021, the balance of guarantee was RMB54.50 million.

13 EVENTS AFTER THE BALANCE SHEET DATE

Issuance of Debt Financing Scheme

Beijing Financial Assets Exchange agreed to accept the registration of the Company for issuing debt financing scheme in the PRC. The registered amount of the Company's debt financing scheme is RMB1.6 billion, with a registered quota being valid for 2 years from October 2021. In January 2022, the Company issued the first tranche of debt financing scheme of RMB350 million in 2022.



SECTION 10 FINANCIAL REPORT

14 OTHER KEY MATTERS

14.1 Lease

1. Lessor

Operating lease

Item	Amount
① Income	
Lease income	63,866,841.28
Variable lease payment related income not included in lease receipts	
② Undiscounted lease receipts to be received in each of five consecutive fiscal years following the balance sheet date	284,884,519.66
Year 1	58,446,108.49
Year 2	57,965,788.30
Year 3	58,352,279.02
Year 4	54,866,975.74
Year 5	55,253,368.10
③ Total undiscounted lease receipts to be received for the remaining years	

SECTION 10 FINANCIAL REPORT

14 OTHER KEY MATTERS (CONTINUED)

14.1 Lease (Continued)

2. Lessee

Item	Amount
Interest expense of lease liabilities	5,591,914.99
Short-term lease expenses for simplified processing included in the cost of related assets or the current profit and loss	26,862,748.55
Low-value asset lease expenses for simplified processing included in the cost of related assets or the current profit and loss (excluding short-term lease charges for low-value assets)	
Variable lease payment not included in the measurement of lease liabilities included in the cost of related assets or the current profit and loss	
of which: the portion generated from the leaseback transactions	
Income from sublease of right-of-use assets	
Total cash outflow related to leases	3,135,039.06
Relevant profit or loss arising from the leaseback transactions	
Cash inflow from the leaseback transactions	
Cash outflow from the leaseback transactions	
Others	

14.2 Debt restructuring

1. Disclosure of debtors

Way of debt restructuring	Carrying amount of debt	Gains from debt restructuring	Increase in owner's equity such as share capital
Debts settled with cash below the carrying amount of the debts	19,317,764.09	2,307,599.66	—
Debts settled with non-cash assets			—
Debt to Equity Instruments			
Revision of other debt conditions			—
Combined restructuring mode			

SECTION 10 FINANCIAL REPORT

14 OTHER KEY MATTERS (CONTINUED)

14.2 Debt restructuring (Continued)

2. Disclosure of creditors

Way of debt restructuring	Carrying amount of creditor's rights	Losses from debt restructuring	Increase in long-term equity investments	Percentage of debtor's equity interests (%)
Creditor's rights recovered with cash below the carrying amount of the creditor's rights	84,026,369.08	31,579,459.84	—	—
Creditor's rights recovered with non-cash assets	61,928,064.52	4,935,928.62	—	—
Debt-to-equity conversion				
Revision of other debt conditions			—	—
Combined restructuring mode				

Note 1: Sixth Metallurgical Construction Company of China Nonferrous Metals Industry (the "Sixth Metallurgical Company"), a wholly-owned subsidiary of the Company, received the reorganization plan of Zhongfu Industrial in June 2020, which provided three repayment schemes, including ① one-off repayment of 60% of all debts (including construction costs and interest); ② repayment of all creditor's rights in five years, 20% per annum, and no interest accrued within five years; ③ repayment of construction costs in 10 years, 60% of the interest is paid off with ordinary creditor's rights. Sixth Metallurgical Company chooses the first option to be compensated with the amount of RMB77,302,921.11 (including interest) determined in the second instance, resulting in a debt restructuring loss of RMB30,921,168.44. The resolution was considered and passed by the general manager's office meeting of Sixth Metallurgical Company and was approved by Chalico.

Note 2: Ninth Metallurgical Construction Co., Ltd. ("Ninth Metallurgical"), a subsidiary of the Company, signed a debt repayment agreement with Longfa Real Estate Development Co., Ltd. ("Longfa Company") in Huazhou District, Weinan city in 2021, pursuant to which both parties agreed to use the 301 sets of shops located in Huazhou District, Weinan City, Shaanxi Province, which were owned and developed independently by Longfa Company, to offset the construction fee of RMB61,928,064.52 owed by Longfa Company to Ninth Metallurgical, resulting in a debt restructuring loss of RMB4,935,928.62. The resolution was considered and passed by the general manager's office meeting of Sixth Metallurgical Company and was approved by Chalico.

SECTION 10 FINANCIAL REPORT

14 OTHER KEY MATTERS (CONTINUED)

14.3 Segment report

1. Financial information reported by segment

Item	Design and survey	Project construction	Equipment manufacturing	Trading business	Inter-segment elimination	Total
I. Operating revenue	2,285,879,546.65	19,373,217,894.04	1,546,395,466.70	326,436,722.07	-183,733,321.37	23,348,196,308.09
II. Operating cost	1,699,125,799.40	16,818,056,033.64	1,413,370,131.40	430,044,141.69	-180,746,654.25	20,179,849,451.88
III. Income from investments in associates and joint ventures	14,516,143.98	-7,357,869.67	-	5,415,807.94		12,574,082.25
IV. Credit impairment loss	-6,850,588.94	9,466,670.64	-1,603,961.52	-330,141,996.51		-329,129,876.33
V. Asset impairment loss	-48,181,140.94	-535,386,479.51	11,660,039.41	-439,004,540.57		-1,010,912,121.61
VI. Depreciation and amortization fee	49,136,855.83	106,303,505.22	8,929,300.95	1,031,394.19		165,401,056.19
VII. Total profit	87,943,254.62	251,245,148.12	-88,641,655.76	-1,004,573,658.80	-2,238,372.75	-756,265,284.57
VIII. Income tax expense	-2,516,124.06	72,038,966.38	5,107,391.98	30,707,361.22		105,337,595.52
IX. Net profit	90,459,378.68	179,206,181.74	-93,749,047.74	-1,035,281,020.02	-2,238,372.75	-861,602,880.09
X. Total assets	23,330,150,732.02	33,726,161,638.73	3,356,744,131.24	4,015,076,148.70	-5,600,097,334.44	58,828,035,316.25
XI. Total liabilities	13,785,193,546.79	29,657,636,230.96	2,388,752,714.47	2,434,199,456.44	-5,952,928,651.51	42,312,853,297.15

SECTION 10 FINANCIAL REPORT

14 OTHER KEY MATTERS (CONTINUED)

14.3 Segment report (Continued)

2. 2021

Item	Engineering design and consultancy	Engineering contracting	Equipment manufacturing	Trading	Inter-segment elimination	Total
I. Operating revenue	2,285,879,546.65	19,373,217,894.04	1,546,395,466.70	326,436,722.07	183,733,321.37	23,348,196,308.09
Including: Revenue from contracts with clients	2,240,688,022.96	19,363,676,699.14	1,537,771,613.49	325,926,452.59	183,733,321.37	23,284,329,466.81
Lease income	45,191,523.69	9,541,194.90	8,623,853.21	510,269.48		63,866,841.28
II. Segment income	87,943,254.62	251,245,148.12	-88,641,655.76	-1,004,573,658.80	2,238,372.75	-756,265,284.57
Income tax expense	-	-	-	-	-	105,337,595.52
Net profit	-	-	-	-	-	-861,602,880.09
III. Total assets	23,330,150,732.02	33,726,161,638.73	3,356,744,131.24	4,015,076,148.70	5,600,097,334.44	58,828,035,316.25
IV. Total liabilities	13,785,193,546.79	29,657,636,230.96	2,388,752,714.47	2,434,199,456.44	5,952,928,651.51	42,312,853,297.15

3. 2020

Item	Engineering design and consultancy	Engineering contracting	Equipment manufacturing	Trading	Inter-segment elimination	Total
I. Operating revenue	2,210,565,884.78	17,869,639,907.74	1,602,715,700.98	1,589,019,470.35	245,990,005.98	23,025,950,957.87
Including: Revenue from contracts with clients	2,173,128,584.25	17,858,846,643.87	1,594,091,847.79	1,586,228,158.78	245,990,005.98	22,966,305,228.71
Lease income	37,437,300.53	10,793,263.87	8,623,853.19	2,791,311.57		59,645,729.16
II. Segment income	-298,468,445.76	-822,711,642.19	-226,825,480.34	-476,760,214.98	14,774.61	-1,824,780,557.88
Income tax expense	-	-	-	-	-	31,616,939.92
Net profit	-	-	-	-	-	-1,856,397,497.80
III. Total assets	22,371,759,451.64	30,879,542,143.65	3,275,408,701.26	4,732,644,783.72	6,770,509,204.77	54,488,845,875.50
IV. Total liabilities	13,159,511,208.47	26,962,781,253.67	2,381,994,160.52	2,452,867,787.69	6,105,221,218.11	38,851,933,192.24

SECTION 10 FINANCIAL REPORT

14 OTHER KEY MATTERS (CONTINUED)

14.4 Auditor's remuneration

Auditor's remuneration	Amount incurred for the current period	Amount incurred for the previous period
Total	5,732,000.00	5,732,000.00

14.5 Directors', Supervisors' and Employees' Emoluments

1. Directors' and supervisors' emoluments

Director/supervisor	Salary, subsidy, allowance and bonus				Contribution to social security and housing provident funds	Contribution to pension fund	Others	Total
	Fee	Basic salary	Subsidy, allowance	Bonus				
Directors								
Wu Jianqiang		280,000.00	133,060.00	157,900.00	129,841.00			700,801.00
Liu Jing		256,667.00	60,000.00	157,682.00	119,071.00			593,420.00
Zhang Jian		210,000.00	120,020.00	128,549.00	119,467.00			578,036.00
Gui Weihua		142,857.12						
Fu Jun		142,857.12						
Zhang Hongguang		142,857.12						
Subtotal		1,175,238.36	313,080.00	444,131.00	368,379.00			2,300,828.36
Supervisors								
Fan Guangsheng		280,000.00	242,100.00	131,022.00	129,841.00			782,963.00
Subtotal		280,000.00	242,100.00	131,022.00	129,841.00			782,963.00
Total		1,455,238.36	555,180.00	575,153.00	498,220.00			3,083,791.36



SECTION 10 FINANCIAL REPORT

14 OTHER KEY MATTERS (CONTINUED)

14.5 Directors', Supervisors' and Employees' Emoluments (Continued)

2. Five highest paid individuals

Among the five highest paid individuals of the Company for the year, there are 2 directors and 1 supervisor. Their emoluments has been reflected in the emoluments of directors and supervisors. The emoluments paid to the remaining 2 persons during the year are as follows:

Item	Amount incurred for the current period
Salary, subsidy, allowance and bonus	1,795,368.00
Contribution to social security and housing provident funds	1,255,726.00
Retirement benefits	
Others	
Total	3,051,094.00

Among the emoluments of the above 5 persons paid for the year, 5 of them were paid within RMB1,000,000.00.

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT

15.1 Accounts receivable

1. Accounts receivable disclosed by category

Category	Carrying amount		Closing balance provision for bad debts	
	Amount	Percentage (%)	Amount	Percentage (%)
Accounts receivable tested for provision for bad debts on an individual basis	401,770,102.61	22.14	256,607,979.36	38.44
Accounts receivable tested for provision for bad debts on a collective basis	1,412,528,316.03	74.67	410,863,801.32	61.56
Including:				
Group 1: expected credit loss group	1,354,687,515.12	3.19	410,863,801.32	61.56
Group 2: receivables from subsidiaries	57,840,800.91	77.86		
Total	1,814,298,418.64	100.00	667,471,780.68	100.00

(Continued)

Category	Carrying amount		Opening balance provision for bad debts	
	Amount	Percentage (%)	Amount	Percentage (%)
Accounts receivable tested for provision for bad debts on an individual basis	185,352,726.10	8.23	73,333,835.80	39.56
Accounts receivable tested for provision for bad debts on a collective basis	2,067,633,415.31	91.77	404,773,668.09	19.58
Group 1: expected credit loss group	2,066,833,415.31	91.74	404,773,668.09	19.58
Group 2: receivables from subsidiaries	800,000.00	0.04		
Total	2,252,986,141.41	100.00	478,107,503.89	21.22

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.1 Accounts receivable (Continued)

1. Accounts receivable disclosed by category (Continued)

- (1) Accounts receivable tested for provision for bad debts on an individual basis as at the end of the year

Entity	Carrying amount	Amount of bad debts	Aging	Expected credit loss rate (%)	Reason for the provision
Debtor 1	209,864,840.09	125,918,904.05	Over 5 years	60.00	The Company makes provision for credit loss based on the recoverability of the amounts
Debtor 2	130,996,986.15	92,873,257.88	Within 2 years, above 3 years	71.00	The Company makes provision for credit loss based on the recoverability of the amounts
Debtor 3	18,900,000.00		2-3 years		The Company makes provision for credit loss based on the recoverability of the amounts
Debtor 4	13,940,659.00	12,519,659.00	Within 4 years, over 5 years	90.00	The Company makes provision for credit loss based on the recoverability of the amounts
Debtor 5	13,388,970.00	13,388,970.00	Over 5 years	100.00	The Company makes provision for credit loss based on the recoverability of the amounts
Debtor 6	7,750,000.00	7,750,000.00	Over 5 years	100.00	The Company makes provision for credit loss based on the recoverability of the amounts
Debtor 7	6,928,647.37	4,157,188.43	Over 5 years	60.00	The Company makes provision for credit loss based on the recoverability of the amounts
Total	401,770,102.61	256,607,979.36	—		

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.1 Accounts receivable (Continued)

1. Accounts receivable disclosed by category (Continued)

(2) Accounts receivable tested for provision for bad debts on a collective basis

Group 1: Expected credit loss group

Aging	Closing balance			Opening balance		
	Carrying amount	Expected credit loss rate (%)	provision for bad debts	Carrying amount	Expected credit loss rate (%)	provision for bad debts
Within 1 year	213,806,917.36	0.50	1,069,034.58	614,563,607.13	0.50	3,072,818.03
Between 1 to 2 years	321,679,146.36	10.00	32,167,914.64	532,851,377.05	10.00	53,285,137.71
Between 2 to 3 years	147,584,725.27	20.00	29,516,945.04	451,761,268.41	20.00	90,352,253.69
Between 3 to 4 years	439,597,642.03	30.00	131,879,292.63	33,369,689.34	30.00	10,010,906.80
Between 4 to 5 years	31,576,939.34	50.00	15,788,469.67	372,469,843.05	50.00	186,234,921.53
Over 5 years	200,442,144.76	100.00	200,442,144.76	61,817,630.33	100.00	61,817,630.33
Total	1,354,687,515.12	-	410,863,801.32	2,066,833,415.31	-	404,773,668.09

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.1 Accounts receivable (Continued)

2. Addition to or recovery or reversal of provision for bad debts

During the reporting period, addition to provision for bad debts was RMB189,740,387.74, and the provision for bad debts recovered or reversed was RMB376,110.95.

3. Other major receivable written-off during the reporting period

No other receivable was written off during the reporting period.

4. Top five debtors of accounts receivable as at the end of the year

Entity	Closing balance	Percentage in total accounts receivable (%)	Balance of provision for bad debts
No. 1	409,516,280.77	22.57	209,049,985.70
No. 2	251,160,202.46	13.84	69,771,650.04
No. 3	246,693,609.16	13.60	19,407,629.72
No. 4	209,864,840.09	11.57	125,918,904.05
No. 5	130,996,986.15	7.22	92,873,257.88
Total	1,248,231,918.63	68.80	517,021,427.39

15.2 Other receivables

Category	Closing balance	Opening balance
Interest receivable	335,554,019.42	321,458,394.38
Dividends receivable	573,773,776.54	479,788,298.10
Other receivables	4,822,177,035.71	4,717,879,114.92
Less: provision for bad debts	10,775,267.74	8,133,926.48
Total	5,720,729,563.93	5,510,991,880.92

1. Interest receivable

(1) Classification of interests receivable

Item	Closing balance	Opening balance
Entrusted loans	335,554,019.42	321,458,394.38
Less: provision for bad debts		
Total	335,554,019.42	321,458,394.38

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.2 Other receivables (Continued)

2. Dividends receivable

(1) Dividends receivable by category

Item	Closing balance	Opening balance
Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	169,870,462.40	161,990,183.96
Ninth Metallurgical Construction Co., Ltd.	144,168,000.00	144,168,000.00
China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd.	90,374,899.93	85,870,499.93
Shenyang Aluminum & Magnesium Design Institute Co., Ltd.	41,866,100.00	31,150,300.00
China Aluminum Great Wall Construction Co., Ltd.	21,252,414.21	21,252,414.21
Kunming Survey and Design institute Co., Ltd. of China Nonferrous Metals industry	37,593,600.00	16,540,600.00
Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy	16,006,800.00	16,006,800.00
China Aluminum International Aluminum Application Engineering Co., Ltd.	6,811,600.00	2,099,600.00
Chinalco Southwest Construction Investment Co., Ltd.		709,900.00
Wenzhou Tongrun Construction Co., Ltd.	709,900.00	
China Aluminum International Investment Management (Shanghai) Co., Ltd.	120,000.00	
China Aluminum International Technology Development Co., Ltd.	45,000,000.00	
Total	573,773,776.54	479,788,298.10

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.2 Other receivables (Continued)

3. Other receivables:

(1) Other receivables by nature

Nature	Closing balance	Opening balance
Advance	67,278,032.81	72,000,902.52
Retention funds or deposits	12,963,731.40	10,384,540.80
Imprest	880,592.33	213,238.11
Others	4,741,054,679.17	4,635,280,433.49
Subtotal	4,822,177,035.71	4,717,879,114.92
Less: provision for bad debts	10,775,267.74	8,133,926.48
Total	4,811,401,767.97	4,709,745,188.44

(2) Aging analysis of other receivables

Aging	Closing balance		Opening balance	
	Carrying amount	Proportion (%)	Carrying amount	Proportion (%)
Within 1 year	4,400,111,234.61	91.25	4,497,338,234.98	95.32
Between 1 to 2 years	220,491,272.62	4.57	132,610,045.70	2.81
Between 2 to 3 years	55,400,250.57	1.15	3,320,251.44	0.07
Between 3 to 4 years	2,967,610.64	0.06	8,257,132.03	0.18
Between 4 to 5 years	1,045,266.50	0.02	3,611,400.77	0.08
Over 5 years	142,161,400.77	2.95	72,742,050.00	1.54
Total	4,822,177,035.71	100.00	4,717,879,114.92	100.00

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.2 Other receivables (Continued)

3. Other receivables: (Continued)

(3) Provision for bad debts

provision for bad debts	Stage 1 Future 12-month expected credit losses	Stage 2 Lifetime expected credit losses (not credit-impaired)	Stage 3 Lifetime expected credit losses (credit-impaired)	Total
Opening balance	284,458.12	1,536,672.49	6,312,795.87	8,133,926.48
Opening balance after reassessment for the period				
– transfers to stage 2	–279,704.52	279,704.52		
– transfers to stage 3		–593,522.13	593,522.13	
– transfers back to stage 2				
– transfers back to stage 1				
Provision for the period	81,262.57	4,442,079.48	–1,542,135.26	81,262.57
Reversal for the period			339,865.53	339,865.53
Write off for the period				
Other changes				
Closing balance	86,016.17	5,664,934.36	5,024,317.21	10,775,267.74

(4) Recovery or reversal of the major provision for bad debts in the current period

During the reporting period, provision for bad debts was RMB2,981,206.79, and provision for bad debts recovered or reversed was RMB339,865.53.

(5) Other major receivable written-off during the reporting period

No other receivable was written off during the reporting period.

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.2 Other receivables (Continued)

3. Other receivables: (Continued)

(6) Top five debtors of other receivables as at the end of the year

Entity	Nature	Closing balance	Aging	Proportion to total closing balance of other receivables (%)	Balance of provision for bad debts
No. 1	Principal and interest of entrusted loan	1,667,990,410.89	Within 1 year	29.16	
No. 2	Principal and interest of entrusted loan	1,061,103,208.30	Within 1 year	18.55	
No. 3	Principal and interest of entrusted loan	947,324,647.57	Within 1 year	16.56	
No. 4	Principal and interest of entrusted loan	589,528,801.50	Within 1 year	10.31	
No. 5	principal and interest of entrusted loan	352,312,013.69	Within 1 year	6.16	
Total	–	4,618,259,081.95	–	80.73	

15.3 Long-term equity investment

Item	Carrying amount	Closing balance Provision for impairment	Book value	Carrying amount	Opening balance Provision for impairment	Book value
Investments in subsidiaries	7,338,322,157.94	7,338,322,157.94		6,792,317,436.38		6,792,317,436.38
Investments in associates and joint ventures	253,005,878.65	253,005,878.65		251,947,542.43		251,947,542.43
Total	7,591,328,036.59	7,591,328,036.59		7,044,264,978.81		7,044,264,978.81

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.3 Long-term equity investment (Continued)

1. Investments in subsidiaries

Investee	Opening balance	Additions for the period	Reductions for the period	Closing balance	Provision for impairment in the current period	Provision for impairment Closing balance
Guiyang Aluminum and Magnesium Design Institute Co., Ltd.	598,559,465.50			598,559,465.50		
Shenyang Aluminum & Magnesium Design Institute Co., Ltd.	332,257,365.81			332,257,365.81		
Changsha Engineering & Research Institute Limited for Nonferrous Metallurgy	415,612,236.37			415,612,236.37		
China Nonferrous Metals Industry's Twelfth Metallurgical Construction Co., Ltd.	1,255,780,969.93			1,255,780,969.93		
China Aluminum International Engineering & Equipment Co., Ltd.	200,000,000.00		200,000,000.00		200,000,000.00	200,000,000.00
Chalieco (Tianjin) Construction Co., Ltd.	184,237,383.73	42,650,000.00		226,887,383.73		
Sixth Metallurgical Construction Company of China Nonferrous Metals Industry	1,049,165,278.44	153,834,721.56		1,203,000,000.00		
China Nonferrous Metals Processing Technology Co., Ltd.	121,479,260.67	49,000,000.00		170,479,260.67		
Duyun Development Zone Tongda Construction Co., Ltd.	5,000,000.00			5,000,000.00		
China Aluminum International Technology Development Co., Ltd.	60,000,000.00			60,000,000.00		
Wenzhou Tongrun Construction Co., Ltd.	60,000,000.00		42,000,000.00	18,000,000.00		

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.3 Long-term equity investment (Continued)

1. Investments in subsidiaries (Continued)

Investee	Opening balance	Additions for the period	Reductions for the period	Closing balance	Provision for impairment in the current period	Provision for impairment Closing balance
China Aluminum International Yunnan Aluminum Application Engineering Co., Ltd.	78,000,000.00			78,000,000.00		
Wenzhou Tonghui Construction Co., Ltd.	27,000,000.00			27,000,000.00		
China Aluminum International Investment Management (Shanghai) Co., Ltd.	25,000,000.00			25,000,000.00		
China Nonferrous Metals Changsha Investigation and Design Research Institute Co., Ltd.	69,273,189.34			69,273,189.34		
Changsha Tongxiang Construction Co., Ltd.	10,000,000.00			10,000,000.00		
Hunan Tongdu Investment and Development Co., Ltd.	6,000,000.00			6,000,000.00		
Chalieco Hong Kong Corporation Limited	65,572,000.00			65,572,000.00		
China Aluminum International Engineering (India) Private Limited	5,941,804.59			5,941,804.59		
Guangxi Tongrui Investment Construction Co., Ltd.	250,000,000.00			250,000,000.00		
Ninth Metallurgical Construction Co., Ltd.	80,650,000.00	542,520,000.00		623,170,000.00		
China Aluminum International Aluminum Application Engineering Co., Ltd.	144,500,000.00			144,500,000.00		
Qingdao Xinfu Gongchuang Asset Management Company Limited	9,000,000.00			9,000,000.00		

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.3 Long-term equity investment (Continued)

1. Investments in subsidiaries (Continued)

Investee	Opening balance	Additions for the period	Reductions for the period	Closing balance	Provision for impairment in the current period	Provision for impairment Closing balance
Chalco Shandong Engineering Technology Co., Ltd.	187,946,928.49			187,946,928.49		
Kunming Survey and Design institute Co., Ltd. of China Nonferrous Metals industry	263,457,753.51			263,457,753.51		
Chinalco Southwest Construction Investment Co., Ltd.	213,020,000.00			213,020,000.00		
Yunnan Miyu Expressway Investment and Development Co., Ltd.	1,074,863,800.00			1,074,863,800.00		
Total	6,792,317,436.38	788,004,721.56	242,000,000.00	7,338,322,157.94	200,000,000.00	200,000,000.00

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.3 Long-term equity investment (Continued)

2. Investments in associates and joint ventures

Investee	Changes in the current period										Provision for impairment balance
	Opening balance	Increase in investment	Decrease in investment	Investment gain or loss recognized under equity method	Adjustments to other comprehensive income	Other equity changes	Cash dividends or profit declared	Provision for impairment	Others	Closing balance	
I. Joint ventures											
Shanghai Fengtong Equity Investment Fund Partnership (Limited Partner)	8,896,248.22			-6,547.37							8,889,700.85
Subtotal	8,896,248.22			-6,547.37							8,889,700.85
II. Associates											
Chalco-Steering Intelligent Technology Co., Ltd.	5,753,055.92			-2,097,854.58							3,655,201.34
Chalco Tendering Company Limited	18,293,586.78			9,065,262.47				5,100,326.80			22,258,521.45
Yunnan Ningyong Highway Co. Ltd.	15,000,000.00										15,000,000.00
Yunnan Linyun Highway Co. Ltd.	15,000,000.00										15,000,000.00
Yunnan Lin Shuang Expressway Co., Ltd	15,000,000.00										15,000,000.00
Zhuzhou Tangqiao Crane Co., Ltd.	174,004,662.51			275,141.16				1,077,338.66			173,202,455.01
Subtotal	243,051,294.21			7,242,549.05				6,177,665.46			244,116,177.80
Total	251,947,542.43			7,236,001.68				6,177,665.46			253,005,878.65

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.4 Operating income and operating cost

1. Operating income and operating cost by category

Item	Amount incurred for the current period		Amount incurred for the previous period	
	Revenue	Cost	Revenue	Cost
I. Subtotal of principal business	578,874,389.87	645,437,238.64	1,895,210,951.23	1,835,637,189.09
Engineering contracting	488,106,673.38	512,975,782.85	1,723,536,638.01	1,635,833,415.44
Engineering design and consultancy	89,211,099.18	130,936,330.41	170,594,923.19	197,653,118.21
Trading and sales	1,403,814.94	1,381,172.58	1,079,390.03	2,150,655.44
Equipment manufacturing	152,802.37	143,952.80		
Less: inter-segment elimination				
II. Subtotal of other business	514,977,427.27	13,380.53	4,796,309.13	
Lease	1,301,374.33		1,167,152.01	
Others	513,676,052.94	13,380.53	3,629,157.12	
Less: inter-segment elimination				
Total	1,093,851,817.14	645,450,619.17	1,900,007,260.36	1,835,637,189.09

2. Operating revenue for the current period by time of revenue recognition

Revenue recognition time	Engineering contracting	Engineering survey and design	Equipment manufacturing	Engineering consultation	Trading and sales
At a point in time			152,802.37	532,595,809.35	1,403,814.94
Over a period of time	488,106,673.38	70,291,342.77			
Total	488,106,673.38	70,291,342.77	152,802.37	532,595,809.35	1,403,814.94

SECTION 10 FINANCIAL REPORT

15 NOTES TO FINANCIAL STATEMENTS OF THE PARENT (CONTINUED)

15.5 Gain on investment

Item	Amount incurred for the current period	Amount incurred for the previous period
Gain on long-term equity investment accounted for under the cost method	322,715,300.00	727,007,900.00
Gain on long-term equity investment accounted for under the equity method	7,236,001.68	11,642,682.25
Gain on disposal of financial assets at FVTPL		
Investment income from available-for-sale financial assets during holding period	992,911.31	1,167,436.92
Gain on investment in discretionary wealth management products	4,568,750.00	
Gain or loss on derecognition of financial assets at amortized cost	-53,219,455.06	-47,189,344.76
Gains on debt restructuring		328,102.99
Total	282,293,507.93	692,956,777.40

16 SUPPLEMENTARY INFORMATION

16.1 Breakdown of non-recurring profit and loss

Item	Amount	Remarks
1. Gain or loss on disposal of non-current assets, including written-off asset impairment provisions	2,692,036.23	
2. Tax return, reduction or exemption arising from ultra vires approval, without official approval document, or on an occasional basis		
3. Government subsidies recorded in current P&L (except government subsidies closely related to business operations granted continuously in a fixed amount or quota according to the unified national standards)	37,187,911.42	

SECTION 10 FINANCIAL REPORT

16 SUPPLEMENTARY INFORMATION (CONTINUED)

16.1 Breakdown of non-recurring profit and loss (Continued)

Item	Amount	Remarks
4. Financing fee from non-financial enterprises recorded in profit or loss	29,724,063.37	
5. Income generated by the fair value of the identifiable net assets of the investee when the investment cost of acquiring subsidiaries, associates and joint ventures is less than the investment cost,		
6. Gain or loss on non-monetary asset exchange		
7. Gain or loss on assets under discretionary investment or management		
8. Asset impairment provisions arising from force majeure factors such as natural disasters		
9. Gains or losses on debt restructuring	-34,207,788.80	
10. Restructuring costs, such as employee settlement cost and integration cost		
11. Gain or loss in excess of fair value arising from obviously unfair transactions		
12. Net profit or loss of subsidiaries arising from business combination under common control for the period from the beginning of the reporting period to the combination date		
13. Gain or loss on contingencies not related to usual operations of the Company		
14. Gain or loss on changes in fair value arising from holding held-for-trading financial assets, other non-current financial assets and trading financial liabilities, and gain on investment from disposal of held-for-trading financial assets, other non-current financial assets, and trading financial liabilities, except for the effective portion of hedging related to usual operations of the Company.		
15. Reversal of provision for bad debts for receivables tested for impairment on an individual basis	76,812,476.82	

**SECTION 10 FINANCIAL REPORT****16 SUPPLEMENTARY INFORMATION (CONTINUED)****16.1 Breakdown of non-recurring profit and loss (Continued)**

Item	Amount	Remarks
16. Gain or loss on entrusted loans		
17. Gain or loss on changes in the fair value of investment property subsequently measured at fair value		
18. Impact of non-off adjustments on current P&L as required by taxation and accounting laws and regulations		
19. Trustee fee income from entrusted operations		
20. Other non-operating income and expenses other than above items	1,874,394.31	
21. Other items falling within the definition of nonrecurring gain or loss	-4,746,461.74	
22. Impact of income tax	18,918,444.63	
23. Impact of minority interests	12,153,646.87	
Total	78,264,540.11	

SECTION 10 FINANCIAL REPORT

16 SUPPLEMENTARY INFORMATION (CONTINUED)

16.2 Net asset yield and earnings per share

Profit for the Reporting Period	Earnings per share					
	Weighted average net assets yield (%)		Basic		Diluted	
	In the current period	In the previous period	In the current period	In the previous period	In the current period	In the previous period
Net profit attributable to ordinary shareholders	-18.91	-28.78	-0.37	-0.71	-	-
Net profit attributable to ordinary shareholders net of non-recurring gain or loss	-20.28	-30.58	-0.39	-0.76	-	-

Notes: There are no dilutive potential ordinary shares.

Breakdown of earnings per share

Item	2021	2020
Net profit attributable to the parent company for the period	-950,129,673.17	-1,976,138,436.83
Less: interest on other equity instruments declared	132,576,190.33	127,279,167.46
Subtotal	-1,082,705,863.50	-2,103,417,604.29
Weighted average number of ordinary shares in issue	2,959,066,667.00	2,959,066,667.00
Basic earnings per share	-0.37	-0.71



SECTION 11 FIVE-YEAR PERFORMANCE SUMMARY

(Expressed in RMB'0,000)

Item	2021	2020	2019	2018	2017
Total assets	5,882,803.53	5,448,884.59	5,599,946.31	4,906,900.14	4,542,145.34
Total equity	1,651,518.20	1,563,691.27	1,539,538.00	1,320,152.26	1,214,413.20
Income	2,334,819.63	2,302,595.10	3,105,979.16	3,363,485.12	3,611,217.91
Profit before tax	-75,626.53	-182,478.06	34,477.33	65,798.14	104,496.96
Earnings per share (RMB)	-0.37	-0.71	-0.02	0.08	0.21
Roe (%)	-18.91	-11.96	1.56	4.57	6.26

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Engineering Corporation Limited
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中鋁國際工程股份有限公司
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