



中國大冶有色金屬礦業有限公司

China Daye Non-Ferrous Metals Mining Limited

(Incorporated in Bermuda with limited liability)

Stock Code : 00661

**ENVIRONMENTAL, SOCIAL
AND GOVERNANCE REPORT**

2023



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INTRODUCTION

In 2023, China Daye Non-ferrous Metals Mining Limited (the “Company”) and its subsidiaries (collectively the “Group”) upheld its belief that economic development should go hand in hand with environmental protection and focused on its objectives and strengthened its problem-oriented approach in accordance with its environmental policy of “compliance with laws and regulations, green development, energy conservation and emission reduction and clean production”, with the aim of making continuous improvement and opening a new stage for the Company’s efforts in the ecological environment protection.

This environmental, social and governance report (“this report”) is prepared by the Group in accordance with the Environmental, Social and Governance Reporting Guide set out in Appendix C2 to the Rules Governing the Listing of Securities on the Main Board of The Stock Exchange of Hong Kong Limited.

THE SCOPE OF AND THE PERIOD COVERED BY THIS REPORT

Unless otherwise stated, this report consists mainly of the relevant operational information of two subsidiaries of the Company, namely Daye Non-ferrous Metals Co., Ltd. (大冶有色金屬有限責任公司) (“Daye Metal”) along with its subsidiary Yangxin Yangxin Hongsheng Company Limited* (陽新弘盛銅業有限公司) (“Yangxin Hongsheng”), and Xinjiang Hui Xiang Yong Jin Mining Co., Ltd. (新疆匯祥永金礦業有限公司) (“Xinjiang Hui Xiang Yong Jin”), during the Reporting Period. This report covers the period from 1 January 2023 to 31 December 2023 (the “Reporting Period”).

STAKEHOLDER ENGAGEMENT

Stakeholders refer to the parties that have interests in the Group or would be affected by the decisions and activities of the Group, including our shareholders, employees, suppliers, customers, regulators and the public. Stakeholders have participated in the assessment of materiality by way of face-to-face interviews, annual general meetings, telephone interviews, questionnaires, etc.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE ISSUE (“ESG”) IS A BOARD RESPONSIBILITY

The Board is responsible among other things for the development of the Group’s long-term corporate strategies and broad policies. In setting its standards, it considers the needs and requirements of the business, its stakeholders, the Corporate Governance Code and ESG Reporting Guide encompassed in the Stock Exchange’s Rules governing the listing of securities.

As such, the Board has overall responsibility for, and is engaged in, the Group’s ESG strategy and reporting, including identifying, evaluating and managing ESG-related risks, and ensuring appropriate and effective ESG risk management are in place. Management provides confirmation to the Board of the effectiveness of these systems. The Board also reviews progress made against ESG-related goals and targets.

Main Responsibilities of the Board

1. Oversee and execute the Group’s ESG strategy.
2. Review and ensure proper disclosure and compliance with the ESG Guide of The Stock Exchange of Hong Kong Limited.
3. Review the annual materiality assessment of ESG risks.
4. Review the internal procedures and system for the maintenance and generation of appropriate and accurate KPI data.

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The Group has established an ESG taskforce (the “Taskforce”). The Taskforce comprises of core members from the Groups’ different departments and is responsible for collecting relevant policies and information on its ESG aspects for preparing this report. The enterprise development department is responsible for the overall planning, with the guidance from the company secretary, and the members come from the safety and environmental supervision and management department, the enterprise management department, the science and mineral resources department, the quality accounting center, the safety and environmental protection supervision and management department, the human resources department, the commercial affairs department, the disciplinary committee and labor union.

The Taskforce will report to the Board at least once a year and is responsible for reviewing, assessing and enhancing the Group’s ESG policies, strategies and performance, and ensuring the Group is in full compliance with ESG requirements. The Taskforce also examines and evaluates the Group’s performances in different areas such as environment, safety production, labor standards, and product responsibilities in the ESG aspects. The Board has also set up a general direction for the Group’s ESG strategies, ensuring the effectiveness in the control of ESG risks and internal control mechanism. This approach affirms and enables the Group’s commitment to ESG, and ensures that members with different backgrounds and expertise are represented to deliver meaningful outcomes.

Main Responsibilities of the Taskforce

1. Collect relevant policies and information for preparing this report.
2. Present and regularly report to the Board on ESG performance.
3. Make recommendations to enhance ESG strategies and practices.

Principles for ESG Disclosures

The Company believes that quality reporting in terms of accuracy, balance, clarity, comparability, reliability and timeliness is the key to managing corporate sustainability. As a result, the Group defines the ESG content to be disclosed in this report based on the following principles:

Materiality	The Company conducts annual materiality assessments to ensure that the identified and prioritized ESG issues reliably reflect the most material concerns to the Company and its stakeholders.
Quantitative	The Company strives to quantify data with the most accurate and precise standards, methodologies and assumptions possible for ease of comparing ESG performances.
Consistency	The Company consistently compiles its latest sustainability report in a familiar format as our past reports and publishes it in a timely manner for readers to make meaningful comparisons of the ESG performance of the Company before making any ESG-dependent decisions within the expected timeframe.
Stakeholder Inclusiveness	The Company engages a broad range of stakeholders to pinpoint the most material issues. Stakeholder groups include investors, shareholders, governments, customers, employees, villagers, local communities, business partners, suppliers and non-governmental organizations.
Sustainability Context	The Company aims to expand our coverage on sustainable development goals, climate risks and opportunities, and other ESG topics in our sustainability reports to provide clarity on the ESG efforts of the Company in a greater context.
Completeness	The Company discloses both the positive and negative impacts of our business in a transparent manner to give a more balanced and complete overview of the ESG performance of the Company.

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Data Source and Reliability Statement

Data and cases in this report are primarily extracted from the official documents, statistical reports, relevant public information and internal reporting documents of the Group. The Company undertakes that this report contains no false representations or misleading statements, and assumes responsibility for the truthfulness, accuracy and completeness of its contents.

Goal Setting and Progress Review

The working group has set ESG-related goals and corresponding implementation initiatives, which are reviewed by the working group and submitted to the Board for approval, covering key ESG performance indicators such as discharge of pollutants, greenhouse gas emissions, resource consumption, production safety, quality management, etc. The Board regularly reviews the progress of achieving the ESG goals and makes recommendations for action on items that require improvement.

Communication with Stakeholders

Based on feedbacks from the stakeholders, the Company establishes a regular stakeholder communication practice. With targeted and diverse communication channels, the Company hopes to achieve positive interactions with stakeholders and respond to their expectations, thus facilitating the implementation of the Company's sustainable development efforts.

Stakeholders	Communication feedbacks	Communication channels
Government departments	<ul style="list-style-type: none"> Comply with relevant laws and regulations Safety Cooperate with the regulatory work of the government in support of healthy industrial development Ensure tax compliance and promote local economic development 	<ul style="list-style-type: none"> Meetings between government and company Supervision and inspection Work reports and studies
Shareholders and investors	<ul style="list-style-type: none"> Protect the legitimate rights and interests of shareholders Understand the operating results, governance standards and stringent risk control measures of the Company Ensure steady operation to maximize investment return Facilitate open, fair and equal information disclosure 	<ul style="list-style-type: none"> General meetings Company website Investor communication conferences and on-site visits Timely disclosure of material operating information and extraordinary announcements, and regular updates on financial information Face-to-face interviews, telephone enquiries and emails
Employees	<ul style="list-style-type: none"> Safeguard the basic rights and interests of employees Care for employees' physical and mental wellbeing and safety Understand employees' needs and their suggestions Provide training and career development platform for employees 	<ul style="list-style-type: none"> Employee representative meeting and labor union Employee satisfaction survey Occupational health and safety training Opinion and feedback platform Daily communication

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Stakeholders	Communication feedbacks	Communication channels
Customers	<ul style="list-style-type: none"> Protect customers' rights and interests Uphold business ethics Ensure product quality and safety, timely recall of defective products Provide high-quality after-sales service guarantee 	<ul style="list-style-type: none"> Product labelling and information disclosure Customer visits Customer satisfaction survey Address complaints and opinions from customers
Partners and suppliers	<ul style="list-style-type: none"> Maintain good and stable cooperation relationship Operate with integrity and ensure the products are compliant with the standards Timely communication and coordination with upstream and downstream players to achieve mutual benefits 	<ul style="list-style-type: none"> Regular exchange and communication Working meetings, phone calls and correspondences
Peers in the industry	<ul style="list-style-type: none"> Fair competition among peers to promote healthy industrial development Sharing of technology and experience among enterprises 	<ul style="list-style-type: none"> Meetings of industry organizations Experience sharing sessions On-site visits and exchanges
Local community	<ul style="list-style-type: none"> Take into account the impact of manufacturing and operation on local community Drive local economic development, provide assistance to the disadvantaged groups Promote health education and help patients Enhance recycling of product packaging and waste, etc. to reduce environmental pollution 	<ul style="list-style-type: none"> Participate in social welfare events Provide regular assistance to the local community Organize volunteer service Disclose environmental information

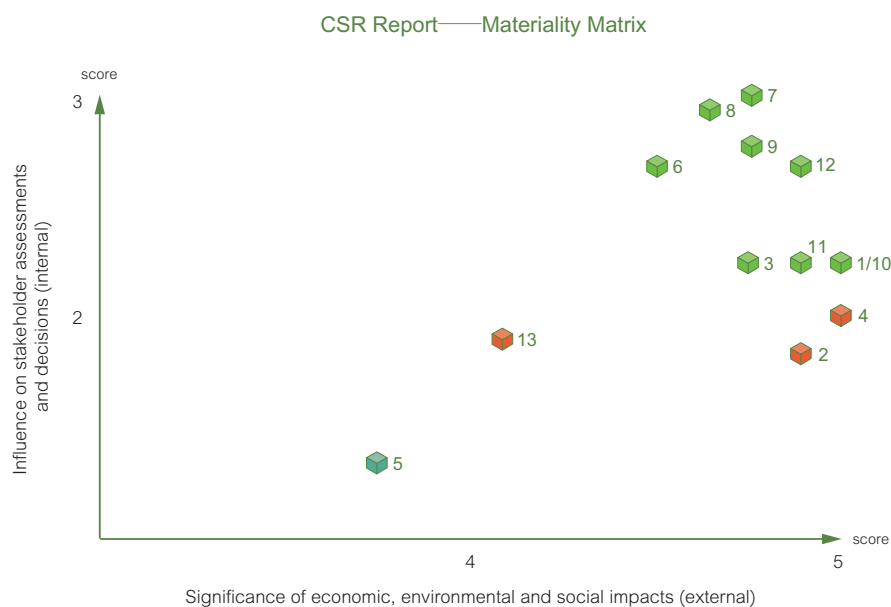
Materiality Assessment

The Company has reviewed and assessed the ESG issues for the year and summarized the key ESG issues of the Company from the stakeholders' perspective as the basis for the preparation of this report.

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Materiality assessment process

- Review the pool of ESG issues: comprehensively consider and select the pool of ESG issues for 2023 by taking into account of the overall business development of the Group in 2023 and with reference to the ESG management practices of peer companies;
- Formulate and implement the stakeholder engagement program: communicate and research with important stakeholders to obtain relevant original data by taking into account of the Company’s own situation for the Reporting Period and with reference to industry development and overall economic and social development;
- Quantify and evaluate from two dimensions: evaluate each issue from two dimensions of “materiality to corporate development” and “materiality to stakeholders” to obtain a matrix of material issues. The Company conducted a questionnaires survey in December 2023, inviting various categories of stakeholders to rate the materiality of ESG issues in 2023 on a scale of 1 to 5, in ascending order of materiality. After the survey, the Company analyzed and assessed the materiality of each issue from the two dimensions of “materiality to corporate development” and “materiality to stakeholders” based on the feedbacks from all participants, to arrive at the materiality matrix of ESG issues in 2023 and the rating of each issue. The survey covered a wide range of stakeholders, including directors, senior management, middle management, employees, investors, suppliers, distributors of the Company and government regulators;
- The working group submit the report to and obtain approval from the management: submit the assessment report on stakeholder engagement and material issues to, and obtain approval from, the management. The Company is fully aware of the high level of stakeholder interest in key issues in areas, and that proper management of these issues will be a top priority for the Group. This report will provide responses and disclosures on various material issues, with a focus on high-materiality issues. The findings of the materiality assessment will be used to guide future ESG strategies and practices to drive the sustainable development.



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|-----------------------------|--|-----------------------------|
| 1. Emissions | 6. Employment Relationship and Labor Standards | 10. Supply Chain Management |
| 2. Use of Resources | 7. Health and Safety | 11. Product Responsibility |
| 3. Environmental Protection | 8. Development and Training | 12. Anti-corruption |
| 4. Use of Resources | 9. Labor Standards | 13. Community Investment |
| 5. Climate Change | | |

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The materiality assessment result

The materiality assessment result indicated that the five most material topics to the Group are:-

Employment Relationship and Labor Standards
Health and Safety
Development and Training
Labor Standards
Anti-corruption

ENVIRONMENT

1. Environmental Protection

The Group painstakingly placed the development of ecological civilization in a prominent strategic position. With rigid adherence to its environmental policy of “compliance with laws and regulations, green development, energy conservation, emission reduction and clean production”, the Group stringently implemented national environmental protection laws and regulations, technical specifications and emission standards while continuously promoting clean production and the operation of the environmental management system as part of its efforts to fulfil its social and environmental responsibilities, with the aim of achieving green development. The Group did not incur any ordinary environmental incidents during the Reporting Period.

1.1 Environmental Management

The Group constantly improves its environmental management mechanism by establishing a safe environmental supervision and management department, a specialized function for environmental management responsible for the organization, supervision, inspection and coordination of the Company’s daily environmental management efforts, as well as the environmental protection offices, which are responsible for environmental management during the production process. The Group standardized its daily management of environmental protection through the establishment of a series of environmental protection management regulations such as the Environmental Protection Management (《環境保護管理》), Environmental Responsibility System (《環保責任制》), Management of Hazardous Waste (《危險廢物管理》) and Environmental Management of Construction Projects (《建設項目環境管理》). In 2023, the Group’s Safety and Environmental Protection Department revised the “Environmental Protection Responsibility System” and “Environmental Protection Accountability System” (《環保責任追究制度》), clarified the management responsibilities at each level, and built a full-chain responsibility system of “clear responsibility, performance, assessment, and accountability” to allow accountability for dereliction of duty. Responsibility, due diligence and exemption from responsibility have become the norm, and leading cadres at all levels are urged to perform their duties. Sign the “Safety and Environmental Protection Responsibility Letter” (《安全環保責任書》) at various levels, refine and decompose key environmental protection tasks, and further tighten tasks and compact responsibilities; in order to strengthen the management of the company’s online monitoring system for pollutant discharge, the “Standardized Management and Assessment Rules for Sewage Outlets (Trial)” (《排污口規範化管理與考核細則(試行)》) was issued for regular assessment of the standardized management of sewage outlets. At present, the Company has passed ISO14001 environmental management system certification.

The Group implements the Annual Environmental Monitoring Program (《年度環境監測計劃》) by combining online and manual monitoring, i.e. regularly monitoring the pollutants to obtain knowledge of wastewater and exhaust emissions at the key points, so as to ensure that the emission of pollutants meets the standards. In order to strengthen the compliance management of online monitoring equipment and facilities, third-party professional units are hired to assist in conducting compliance inspections of online monitoring equipment to further consolidate the bottom line of legal compliance.

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Usable materials in solid waste produced during the smelting process are further recycled and used by the Company; unusable materials are handed to professional companies for proper disposal; tailings slag from ore processing is disposed by filling, curing cementation or professional tailings pond storage in compliant manner.

For the noise generated during the production process, facilities such as sound-proof walls, mufflers and shock absorbers, etc. are employed to minimize noise pollution, and noisy equipment is placed away from the residential areas and staff quarters. At the same time, in accordance with the relevant requirements of the Ministry of Ecology and Environment's "Notice on Carrying out the Management of Industrial Noise and Pollution Emission Permits", industrial noise will be included in the management of emission permits.

The Company implemented the environmental impact assessment system. The Company comprehensively promoted the environmental impact assessment of construction projects and the environmental acceptance upon completion of project to improve the intrinsic environmental protection level of the Company. It completed the environmental impact assessment of ten projects, including the rain and sewage diversion from the smelter, and the environmental acceptance upon completion of four projects, including the tailings pond closure of the Chimashan Mine, and successfully obtained the discharge permit for Yangxin Hongsheng, which further strengthened the bottom line of corporate governance in accordance with the law and added to the Company's green and high quality development.

For the rectification progress of issues raised by the Central Environmental Protection Inspectorate, please refer to the annual report 2023 of the Company.

1.2 Environmental initiatives

1.2.1 *The Group continues to improve the intrinsic environmental protection levels, facilitate the implementation of major environmental initiatives and the rectification of key environmental issues of all production units.*

Case 1:

Yangxin Hongsheng achieved the "Three-simultaneity" for its environmental facilities with high quality. It went through the whole process in only 33 days, achieved the production and standard targets in only four months, with all kinds of pollutants meeting the standards stably, especially the sulfur dioxide and nitrogen oxides, whose emission concentrations were only 10% of the limit. In the meantime, during the process of producing acid from smelting gas and purifying waste acid, an enhanced gas-liquid sulfurization technology was introduced in the early stage to remove heavy metals in the waste acid, which reduced the inputs of reagents, improved the sulfurization efficiency, removed the heavy metals in a high-efficient manner, produced less sulfate residue and as a consequence, effectively reduced the subsequent treatment costs of arsenic residue.

Case 2:

The environmental upgrading and factory-wide production system improvement project for smelters in 2023 has been basically implemented and completed. With a planned investment of RMB696.3 million, the whole factory is expected to reduce carbon emissions of 59,707.39 tonnes CO₂ after the technical reform. To align with the smelters' waste acid treatment technical reform and further ensure the compliance of hazardous waste disposal, the Group plans to invest RMB160 million to build a rigid hazardous waste landfill, which will be constructed in two phases with a designed landfill capacity of 151,300 cubic meters, and currently the first phase of the project has been completed and put into use.

Case 3:

With a planned investment of RMB88.95 million, the copper anode mud environmental treatment system upgrading and reform project for smelters was implemented and it is able to process 5,000 tonnes of copper anode mud per year. At the same time, some new initiatives such as wastewater COD removal and initial rainwater reuse were also introduced to further improve the environment, bringing remarkable social benefits.

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Case 4:

The ecological restoration project of Chimashan Mine was completed in 2023 and has passed the environmental acceptance. With an actual investment of RMB17.88 million and greening area reaching 110,000 square meters, it aims to restore the ecological environment of the abandoned industrial and mining site of the former Chimashan Mine. The full implementation of the project highlights the Group's focus on the harmonious development of mineral resources mining and ecological construction and its proactive fulfillment of responsibility and obligation of restoring and treating geological environment of mines.

1.2.2 *The Group continues to carry out ecological civilization ideological education and trainings on environmental protection knowledge for all employees.*



Case 1:

Launched a series of publicity and educational activities on environmental protection such as the "Environmental Protection Month", published essay with the theme of "Building a Beautiful and Colorful City, Promoting Green Development", and conducted prize-giving quizzes on environmental protection knowledge. Additionally, our employees actively participated in the Huangshi "Satisfying Eco-story" and other short video selection activities. A total of 55 literary works about environmental protection were collected, and 39,000 votes were cast in total; 4,791 people joined the four environmental protection knowledge quizzes; one satisfying ecological story was shortlisted for selection by the Ministry of Ecology and Environment of the People's Republic of China, and "My Low-Carbon Life" short video won the first prize of Huangshi City, which positively created a good atmosphere for all staff to participate in the environmental protection.



Case 2:

Insisted on the implementation of environmental protection training. The company-level specialized training on environmental protection such as the solid waste and hazardous waste management, environmental management of construction projects has been executed for four times, in which there were 697 participants totally. Each unit organized quarterly environmental protection training at the factory and mine-level on its own.



Case 3:

Initiated specialized warning education. On the Group's official public account, four phases of typical law enforcement-themed cases involving air, water, solid waste and hazardous waste and online monitoring were released, involving 35 cases.

1.3 Emission Statistics during the Reporting Period

In 2023, the central ecological and environmental protection inspection rectification met the progress requirements, with 32 of 34 tasks completed, with a completion rate of 94%; no environmental emergencies occurred.

	2023	2022	2021	2020	2019
CO ₂ :	529,073 tonnes	412,573 tonnes	484,264 tonnes	522,399 tonnes	551,531 tonnes
SO ₂ :	157 tonnes	191 tonnes*	294 tonnes*	1,709 tonnes	1,813 tonnes
NO _x :	161 tonnes	106 tonnes*	190 tonnes	139 tonnes	262 tonnes
Dust:	16.63 tonnes	12.6 tonnes	18 tonnes	37 tonnes	82 tonnes
Production of hazardous waste:	42,562 tonnes	71,880 tonnes	73,740 tonnes	82,056 tonnes	82,082 tonnes
Disposal rate of hazardous waste:	100%	100%	99.80%	100%	100%
Production of non-hazardous waste:	4,977,062 tonnes	3,795,657 tonnes	4,440,534 tonnes	7,143,418 tonnes	4,592,736 tonnes
Disposal rate of non-hazardous waste:	100%	100%	100%	100%	100%

Note: CO₂ emissions are calculated according to the national "Guidelines for Accounting and Reporting Greenhouse Gas Emissions from the Smelting and Rolling of Other Non-ferrous Metals Industrial Enterprises" (《其他有色金属冶炼及压延加工工业企业温室气体排放核算方法与报告指南》). (Including the smelting plant, Tonglvshan Mine, Tongshankou Mine, Fengshan Copper Mine, Xinjiang Hui Xiang Yong Jin, Yangxin Hongsheng, Design Research Institute)

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Data temporarily does not include Yangxin Hongsheng. Yangxin Hongsheng is now in trial production, and the current data is not representative. Their production capacity has not met the requirements, and there is no control for the time being.

- * The sharp drop in sulphur dioxide emissions in 2021 is due to the suspension of production and renovation after environmental inspections in 2020.
- * The significant year-on-year decrease in sulfur dioxide and nitrogen oxides on 2022 was mainly due to the smelter's implementation of central environmental protection supervision and rectification, and the strengthening of waste gas emission indicators. The concentration of waste gas emissions decreased year-on-year, and the amount of pollutant emissions decreased accordingly.

1.4 Disclosure of information about the methods, standards and assumptions used to obtain gas emission data

The carbon emissions in 2023 are calculated according to the national "Guidelines for Accounting and Reporting Greenhouse Gas Emissions from the Smelting and Rolling of Other Non-ferrous Metals Industrial Enterprises (trial)" (《其他有色金屬冶煉和壓延加工業企業溫室氣體排放核算方法與報告指南(試行)》) issued by the National Development and Reform Commission.

Our total emissions in 2023 amounted to 520,914.38 tonnes of carbon dioxide equivalent, which can be divided into the following two categories:

- Scope 1: The direct emissions from the emission sources owned or controlled by the Company amounted to 125,979.22 tonnes of carbon dioxide equivalent, representing 24.18% of the total emissions. (Scope 1 presents the consumption of fossil energy purchased by the Company's production units, including the smelting plant, Yangxin Hongsheng, Tonglvshan Mine, Tongshankou Mine, Fengshan Copper Mine, Xinjiang Hui Xiang Yong Jin and Design Research Institute; the carbon emission consumption of purchased fossil energy is calculated by multiplying the consumption of fossil energy by carbon content per unit of calorific value, carbon oxidation rate and lower calorific value.)
- Scope 2: The indirect emissions from the electricity purchased and other energies purchased amounted to 394,935.16 tonnes of carbon dioxide equivalent, representing 75.82% of the total emissions. (Scope 2 presents the consumption of electricity purchased which is the main source of greenhouse gas emissions; the consumption of electricity purchased is calculated by multiplying the electricity consumption of all production units by the average carbon dioxide emission factor of national power grid; the emission factor adopts the figure 0.5703 as set out in the "Notice on the Management of Greenhouse Gas Emission Reports from Enterprises in the Power Generation Industry from 2023 to 2025" (《關於做好2023-2025發電行企業溫室氣體排放報告管理有關工作的通知》).

1.5 Mid- and long-term goals for carbon dioxide emissions

By 2025, the Company's annual carbon dioxide emissions will be controlled below 825,000 tons.

By 2027, the Company's annual carbon dioxide emissions will be controlled below 845,000 tons under existing production capacity and will gradually decline.

By 2030, the Company's renewable energy use will be increased to account for more than 10% of the total energy structure.

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2. Use of Resources

2.1 Energy Saving Control

The Group earnestly implements national and industrial energy conservation laws, regulations, standards and requirements, and strictly follows relevant provisions including the Energy Conservation Law of the People's Republic of China (《中華人民共和國節約能源法》), Electric Power Law of the People's Republic of China (《中華人民共和國電力法》), and Norm of Energy Consumption Per Unit Products of Copper Metallurgical Enterprise (《銅冶煉企業單位產品能源消耗限額》), etc., and takes the low-carbon green development as the goal of energy-saving management, through the implementation of effective control management, the energy utilization efficiency in mining, ore processing, and smelting is improved to achieve comprehensive sustainable development.

Measures for Operation Management

- In 2021, the Group obtained the certification of the new ISO50001:2018 standard for energy management systems. In production activities, in accordance with the requirements of the energy management system, process control of energy consumption is strengthened to maintain the ongoing effective operation of the system and the reduction of energy consumption in products.
- Energy conservation-related technological improvement plans are formulated to step up efforts on energy saving technological transformation and energy mix adjustment, thus gradually reducing the proportion of fossil energy consumption, improving operation stability of key equipment and increasing energy efficiency.
- Annual energy consumption limits for all production units as well as total energy consumption control targets for the Group are formulated, and performance appraisals are carried out, to control energy consumption comprehensively in multiple levels.
- The usage and control of water resources are strengthened to increase recycling and reuse rate of circulation water and underground water. The management measures of water savings are introduced to reduce the new water consumption. The Group did not encounter any issues on seeking for sources of water.

Measures for Office and Domestic Management

- The use of energy saving LED lighting is promoted and smart sensing power switches with voice, light and time control, etc. are installed.
- Energy and water resource management in offices are strengthened by use of natural light for office lighting as much as possible and complete prevention of unused lights, air conditioners and running faucets, etc.



Illustration

In 2023, the Yangxin Hongsheng 400,000-ton high-purity cathode copper clean production project has been launched to achieve cascade utilization of steam, zero evacuation, and an annual power generation of 140 million kilowatt hours; the project implements special emission limit standards, and its ring-collecting flue gas and sulfuric acid waste gas adopts a high-efficiency organic amine desulfurization process to achieve ultra-low emissions of waste gas while recovering 480,000 tonnes of sulfur dioxide annually. The entire system realizes clean sewerage and rainwater diversion for disposal and reuse, with a water recycling rate of 98%.

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2.2 Improving Resource Utilization Rate

The Group conducts exploration of mineral resources in strict accordance with the Mineral Resources Law of the People's Republic of China 《中華人民共和國礦產資源法》 and strictly implements the Law of the People's Republic of China on Safety in Mines 《中華人民共和國礦山安全法》. Paying attention to the full utilization and protection of resources in the process of resource development, the Group enhances the comprehensive resource utilization rate for energy conservation and consumption reduction through measures including technological innovation and optimization of mining, processing and smelting processes to maximize the value of resource utilization.

Through production mining prospecting, mining prospecting data analysis, mining prospecting target area selection, ore body secondary delineation, etc., the amount of recoverable resources has been greatly increased and the loss rate of ore dilution has been reduced. Through the construction of digital mines and the application of new equipment, the operation efficiency has been effectively improved. Through technical breakthroughs and key technical index supervision and other projects, the recovery rate of ore processing can be improved, and various available resources can be effectively recovered.

2.3 Indicators of Energy Consumption during the Reporting Period

	2023	2022	2021	2020	2019
Electricity consumption:	692,504,200 KWh	609,066,061 KWh	668,967,300 KWh	715,660,648 KWh	717,813,609 KWh
Natural gas consumption:	44,653,600 m ³	14,703,104 m ³	15,816,200 m ³	16,240,942 m ³	16,053,022 m ³
Total quantity of new water:	4,393,300 tonnes	6,174,232 tonnes	5,967,800 tonnes	5,479,414 tonnes	6,007,558 tonnes
Total raw coal :	11,000 tonnes	31,400 tonnes	48,800 tonnes	56,200 tonnes	73,400 tonnes
New water consumption per tonne of copper:	4.54 tonnes of water/tonne of copper cathodes	9.09 tonnes of water/tonne of copper cathodes	8.93 tonnes of water/tonne of copper cathodes	8.28 tonnes of water/tonne of copper cathodes	8.02 tonnes of water/tonne of copper cathodes

Notes:

- ① Electricity consumption includes all the electricity consumed for production at the smelting plant, Tonglvshan Mine, Tongshankou Mine, Fengshan Copper Mine and Xinjiang Hui Xiang Yong Jin, Yangxin Hongsheng.
- ② Natural gas consumption (cubic meter) represents the quantity of natural gas consumed by the smelting plant, Yangxin Hongsheng.
- ③ Total quantity of new water represents the quantity of new water used for production in the smelting plant, Tonglvshan Mine, Tongshankou Mine, Fengshan Copper Mine and Xinjiang Hui Xiang Yong Jin, Yangxin Hongsheng.
- ④ New water consumption per tonne of copper (tonne of water/tonne of copper cathodes) is the indicator of water consumption for producing copper cathodes, the main products of the smelting plant.

3. Climate Change

The Group recognises that the long-term risks of climate change have far-reaching impacts on our operations and environment. As such, we are committed to mitigating the impacts of climate change and other environmental related risks. Changes in weather patterns and the increased severity of extreme weather events are physical risks which will likely disrupt the continuity of daily operations in terms of the ability of our employees for the company's business and operation. For this reason, we have developed emergency protocols to handle such events, as outlined in the Employee Handbook. As the awareness of environmental protection become more and more important in society, there is potential change in climate-related regulation and policy, including imposition of energy-efficiency requirements. Such transition risk may impact our operation cost and increase exposure of legal risk. Therefore, we monitor the changes of the regulation and policy regularly and make sure our operations are in line with the requirements of latest laws and regulations.

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3.1 Climate Change Risks

Governance

The Company has incorporated sustainable governance into its corporate governance framework to ensure that the Group's exposure to the risks of climate change is incorporated into the corporate agenda and that the Group is actively involved from top to bottom in the development and implementation of strategies to address climate risks.

Board level

The Board is the highest governance body of the Group and is the highest leading unit for managing climate change risks, formulating sustainable development strategic goals and supervising the effective implementation of relevant goals. The Board is responsible for formulating the strategic direction of the Group. When formulating strategic goals and development directions, the Board takes climate change-related issues and corporate social responsibility into consideration, sets goals for the management and supervises the achievement thereof.

Supported by the leadership committee and construction working group of internal control system, the Board retains ultimate responsibility for the oversight of the Group's risk management activities. The working group under the Board takes accountability on risk management, and reviews corporate risk management and internal controls at least once a year.

Under the Management Decision Committee, the Group has established a Safety and Environmental Supervision and Management Department. The Safety and Environmental Supervision and Management Department provides practical guidelines and support to the Group's sustainable development, and is tasked to ensure thorough implementation of the Group's sustainable management policies.

Management level

The risks brought on by climate change are placed high on the Group's agenda, and therefore, the Group is committed to building resilience against these risks. In particular, the Group has established a working group, the leader of which is mainly responsible for its leadership role, and annually develops, monitors and reviews safety and environmental indicators and targets. The leader shall firmly discharge his/her responsibilities and guide the various executive departments in taking measures to address climate risks.

Strategy

The Group understands that climate change will bring various risks to its business, such as physical risks such as water resource stress, floods and extreme weather, which will cause damage and negative impact on assets and supply chains; and transition risks such as policy changes and reputation, will also cause potential financial impact. Therefore, it is actively taking actions to address the impact of climate change. The Group is committed to reducing and offsetting greenhouse gas emissions, enhancing the resilience of the Group in response to climate change, and seizing relevant opportunities to build a cleaner environment. Facing the continuous impact of climate change, the Group has established and implemented a series of strategies to deal with climate risks, re-positioning the Group in the ever-changing world, in order to enhance the city's climate change resilience and promote sustainable development. The Group has adopted the following strategies to address climate change, and will strengthen its efforts and take more relevant actions to achieve the goal of carbon neutrality:

Analysis of the Impact of Climate-related Risks on Finance

During the Reporting Period, the working group has identified and assessed a number of climate-related issues that have affected or may affect the Group (e.g. disruption to production operations, supply chains, energy resources and logistics due to the increasing intensity and frequency of extreme weather events (e.g. typhoons, rainstorms, snowstorms, floods, etc.); replacement of existing products, services or technologies during the transition period; the increased capital expenditure and operating costs due to damage to assets and facilities; threats to employee safety; increased insurance premiums due to the potential recurrence of extreme weather events; possible implementation of climate-related regulations and policy changes; global transition to a low carbon economy through energy efficiency innovations, etc.).

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Climate-related risks	Climate risk outcomes	Potential financial impact
Policy and legal risks (low risk)	The Group may face the risks of being held legally liable or subject to regulatory measures, facing disciplinary actions, encountering property damage or loss of business reputation due to its failure to meet climate-related policies or laws.	Reduction of operating income, increase of credit risks
Technology risks (low risk)	In the process of low-carbon technology transformation, the development and application of energy-saving and environmental protection technologies such as renewable energy and new energy may have certain impacts on the operation and business of the Group.	Reduction of fixed asset value, increase of R&D investment cost
Acute physical risks (high risk)	Severe climate changes such as extreme weather or natural disasters such as typhoons and floods, among which rainstorm will cause flooding can aggravate the Company's flood relief efforts. Extreme weather may lead to disruptions in the transportation of raw materials and products, as well as reduction of efficiency of mine and smelter production operations.	Reduction of operating income, increase of operating cost, and reduction of fixed asset value
Environmental risks (high risk)	The Company's major environmental risks include contaminant leakage and the occurrence of events such as the construction and operation of projects that do not meet expectations due to their impact on the environment.	The Company's headquarters and subsidiaries take impermeable measures in accordance with the regulations and have set up collection ponds and weirs to prevent harmful substances from leaking into the environment, and also conducts regular emergency drills for hazardous waste.
Chronic physical risks (low risk)	The long-term shift in natural phenomenon such as rising of sea level and continuous high temperature may influence the normal operation of the Group.	Increase of operating cost, and reduction of fixed asset value
Reputation risks (low risk)	The public pays more and more attention to green operation. If the Group fails to meet the expectations of stakeholders, it may face reputation risk in the operation.	Reduction of operating income, increase of operating cost
Market risks (low risk)	Considering the business characteristics of the industry, the risk of transformation caused by the increased demand of consumers for green products and services.	Reduction of operating income, increase of operating cost

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It is concluded that these climate-related issues are not material to the Group. The materiality assessment, as detailed in the “Stakeholder Engagement and Peer Benchmarking” and “Materiality Assessment” sections above, indicated that the materiality of A4 Level: Climate Change and Key Performance Indicator A4.1 has been currently ranked as “low” overall, consistent with the conclusions of the Enterprise Risk Management team above.

Analysis of the Impact of Climate-related Opportunities on Finance

During the Reporting Period, the working group has identified and assessed a number of climate-related issues that have affected or may affect the Group (e.g. promotion of resource and energy use efficiency, etc., use of clean energy and low-carbon energy instead of traditional high-carbon energy, selection of environment-friendly suppliers resulting in lower operating cost and higher operating income).

Climate-related opportunities	Climate opportunities outcomes	Potential financial impact
Resource efficiency	The Group promotes energy conservation and emission reduction through promoting resource and energy use efficiency, etc., which is conducive to reducing operating costs.	Reduction of operating costs
Energy sources	The use of clean energy and low-carbon energy instead of traditional high-carbon energy will help significantly reduce the uncertainty of Group’s energy expenditure in the future.	Reduction of operating cost risks
Resilience	The Group’s climate resilience is enhanced by adopting energy efficiency measures in operations and choosing environment-friendly suppliers and partners.	Increase of operating income, and reduction of operating costs

It is concluded that these climate-related issues are not material to the Group.

3.2 Carbon Emission

We focused on the goal of “carbon peak and carbon neutrality,” and our green and low-carbon development pattern was continuously consolidated and improved. We support the Paris Agreement and the Chinese government’s National Strategy for Climate Change Adaptation. Achieving the “Carbon Peak” and “Carbon Neutrality” goal and stepping into the “renewable energy and advanced materials” business have become important components of the Company’s development strategy for the next decade.

The Company has been firmly establishing its “energy transformation and green low-carbon development” concept in quickening the promotion of green transformation and development. The Company has successively completed the full-process transformation of mining and smelting systems, greatly improving the level of greening, intelligence, mechanization, automation and informatization. At the same time, the Company steps up efforts on the management of energy conservation and carbon reduction, and promotes the continuous development of energy conservation and carbon reduction work through measures such as advancing the construction of energy management systems, promoting the application of energy-saving technologies, strengthening the management and control of production process, and optimizing the energy mix.

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The Company has always actively supported and participated in the building of the carbon emission market. In 2013, the Company became a shareholder of China Emissions Exchange in Hubei Province. In 2014, it was among the first group of enterprises to participate in the pilot carbon emission trading market in Hubei Province, achieving certain results in terms of carbon emissions planning, verification and trading as well as carbon reduction technology, etc. With the implementation of projects including increasing the oxygen enrichment of the Ausmelt furnace with the smelting system to reduce electricity and raw coal consumption, applying the lean-oxygen combustion technology at the refining furnace to reduce natural gas consumption, dismantling renewable resources and recovering scrap copper to reduce energy consumption in the blister copper smelting process, the Company plays a significant role in controlling and reducing carbon dioxide emissions in the course of production.

The Company has a long-term plan for carbon emissions, aiming at carbon peaking by 2030 and carbon neutrality by 2060. "Carbon peaking" means that carbon dioxide emissions no longer increase, and gradually decrease after reaching the peak. "Carbon neutrality" means that total amount of carbon dioxide generated from enterprise offset through tree planting, energy conservation and emission reduction, and other means to achieve "zero emission" of carbon dioxide.

Carbon peaking and carbon neutrality have presented a huge issue for the green, low-carbon and high-quality development of enterprises. However, in the specific implementation process, the gradual emergence of issues including the few number of latest low-carbon and zero-carbon technologies being developed and promoted for application, the relatively high cost of implementing low-carbon technology, the slow speed of developing clean energy, the need for further research and promotion of carbon capture technology, etc., has formed certain obstacles for enterprises to achieve the goals of carbon peaking and carbon neutrality.

The Company is vigorously promoting the development of double carbon work in accordance with the national requirement to promote "carbon peak and carbon neutrality". The Company has set up a leading team for the "carbon peak and carbon neutrality" action, formulated work responsibilities and action requirements, organized continuous learning and training on the policy requirements of "carbon peak and carbon neutrality", studied carefully the ideas and technical methods for the implementation of the double carbon action, and formed the implementation direction and working ideas for the implementing of the action.

In order to implement the new development concept, focus on reducing carbon emissions, accelerate the formation of green production methods, strengthen green technology innovation, and help the Company achieve high-quality development, the Company is engaging a professional institution to prepare an implementation plan for the "carbon peak and carbon neutrality" action and develop and build the Company's carbon assets management information platform. Through a comprehensive and systematic verification on the Company's existing carbon emissions, and LCA full life-cycle assessment and analysis of the carbon footprint of the main products, the project carries out research on low-carbon technology measures and carbon reduction potential technologies, proposes targeted low-carbon control solutions for each production control step and business segment, builds the Company's carbon assets and carbon footprint information management platform system, formulates the technical roadmap and implementation steps for carbon peak and carbon neutrality, and conducts overall research and planning of the Company's carbon management system (carbon emission rights, carbon assets, carbon finance, etc.). Finally, a scientific, systematic, quantifiable and practical implementation plan for the Company's "carbon peak and carbon neutrality" action has been formed and implemented. The first draft of the action plan has been formed and the Company's carbon assets information management platform has been built and is ready for operation. Upon completion of the project, it will provide substantial planning and guidance for the commencement of the Company's double carbon work.

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Next, the Company will vigorously promote the development of energy utilization in the direction of high efficiency and cleanliness in combination with double carbon planning, vigorously promote the application of key national energy-saving and low-carbon technologies, clean energy technologies, new energy storage technologies and low-temperature waste heat recovery technologies within the Company, gradually explore ways to adjust the energy structure, improve energy use efficiency and build a clean, low-carbon, safe and efficient energy management system. The Company will improve the dual control of total energy consumption and intensity, seek various effective paths of carbon peak and carbon neutrality, and strive to promote the achievement of the goal of carbon peak and carbon neutrality.

SOCIAL

1. Safety Development

Adhering to the principle of putting people and their lives first, the Group gives top priority to the protection of employees' lives and safety, firmly establishes the safety development concept upholding the policy of safety first, prevention the key and comprehensive management, strictly complies with the laws and regulations of the PRC on production safety, and establishes and continuously improves its occupational health and safety management system, thus providing a safe and healthy workplace for employees for the protection of their safety and health.

The Group strictly abides by national production safety laws, regulations and standards such as the National Work Safety Law and the Occupational Disease Prevention and Control Law, continues to improve the occupational health and safety management system, strives to create a healthy and safe working environment, protects the physical and mental health of employees, and establishes a good corporate image.

1.1 Safety Management System

The Group has established an occupational health and safety management system in accordance with the ISO45001 standard and has continued to improve its occupational health and safety performance. At the end of 2023, we passed the on-site audit of the Hubei Branch of China Quality Certification Centre. Yangxin Hongsheng obtained the ISO45001 management system certificate for the first time.

- Safety management organization: The chairman of a corporation of the Group is the top manager of the corporation's occupational health and safety management system, responsible for system operation planning and command. The corporation's general manager is the representative of management. Under the leadership of the top management, he is responsible for the establishment, implementation, maintenance and improvement of the process required by the corporation's occupational health and safety management system. The Group has set up a Safety Supervision and Management Department as a specialized institution for safety management, and is manned by safety directors and full-time safety production managers who meet the requirements of laws and regulations. Each mines is equipped with five mine directors in accordance with the requirements of the State Mine Safety Supervision Bureau.
- Safety performance inspection: The Group signs an annual "Safety Production Target Responsibility Letter" with each of its affiliated factories and mines every year. The Group has established a safety performance evaluation procedure to regularly review and examine its compliance with laws and regulations, the progress of its goal achievement, the operation of its occupational health and safety management system, its safety education and training and other aspects so as to identify opportunities for improvement, formulate improvement measures and continuously improve its safety management performance.
- Safety inspection and rectification: The Group and its affiliated units have organized and carried out special safety inspections in mining, construction, logistics and transportation, etc. based on the safety production characteristics of different periods, and conducted a comprehensive safety inspection every quarter. In accordance with the requirements of the National Ministry of Emergency Management for the 2023 special action to investigate and rectify major accident hazards, we organized and carried out the investigation and rectification of major accident hazards, and promptly treated the major accident hazards discovered during the investigation to eliminate safety risks.

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- Safety emergency management: The Group has established an emergency rescue centre and a mine emergency rescue team, equipped with corresponding rescue equipment. Based on the safety risks of the Group, corresponding emergency plans are formulated. The Group establishes an emergency drill scheme annually and organizes emergency drills for fire, hazardous chemicals and flood prevention on a regular basis. At the same time, the Group actively implements social responsibilities and undertook the Hubei Provincial Emergency Department's 2023 non-coal mine major disaster emergency drill and Huangshi City's 2023 actual fire drill. The company's emergency rescue team has participated in local fire response many times and has been commended by the local government's safety and fire department.
- Safety education management: The Group has established a "three-level" safety training system covering the corporation, workshops and production teams, and has formulated The Company's Implementation Plan for the Safety Skill Improvement Action Plan (《公司安全技能提升行動計劃實施方案》) to organize and conduct skill improvement training for safety management personnel, production team leaders and employees. A total of more than 3,000 personnel were trained for the main persons in charge of the organizational unit, safety management personnel, special operations personnel, new employees and other personnel. The Group regularly organizes a series of safety promotion, education and training activities, such as "Safety Alert Month" (事故警示月), "Production Safety Month" (安全生產月), "Ankang Cup" (安康杯) and "100 Days with Zero Accident" (百日安全生產無事故) to enhance the safety awareness and skills of its employees.
- Occupational health protection: The Group strictly implements laws and regulations such as the Law on the Prevention and Control of Occupational Diseases, and conducts occupational hazard inspections every year in workplaces where harmful factors such as dust and noise exceed the standard. In strict accordance with the standards for the provision of protective supplies, the Group provides its employees with protective products, such as safety helmets, dust masks, gas masks, protective glasses and earplugs. Through the adoption of dust washers and ventilators and other measures, the Group reduces dust concentration at the work site to improve the operating conditions, thus protecting the physical and mental health of its workers. Every year, the Group conducts regular occupational hazard tests on the work site, organizes medical checkups and rehabilitation trips for its employees, and purchases medical insurance, work injury insurance and safety liability insurance for those who meet the requirements. In 2023, the Group implemented the environmental protection upgrade project of the smelting plant and the improvement of the whole plant system. It adopted an automatic fire alarm system using photoelectric smoke detection and constant temperature detection as the main methods to monitor the central control room, lounges, offices, high-voltage distribution rooms and other areas. Implement 24/7 monitoring; detect and monitor key hazardous locations and equipment and facilities; improve the level of automation and intrinsic safety, and improve the on-site operating environment by improving environmentally friendly smoke exhaust systems, optimizing processes, updating equipment, and improving safety facilities.

1.2 Safety Operation

The Group adheres to the concept of "safe development" and takes "safety first, prevention first, people-oriented, comprehensive management" as its policy, with Safety Management Strengthening Year, Special Investigation and Rectification of Major Accident Hazards in 2023, Three-year Action for Intelligent Mining Construction and Scientific and Technological Development of Anhui Province as the main line to further consolidate responsibilities, improve management, prevent and control risks, lay a solid foundation, and solidly promote the implementation of various work on safety production.

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The Group actively carries out the construction of smart mines and the three-year action to promote science and technology and improve the environment. We carried out intelligent construction management diagnosis for Tonglvshan Mine, Fengshan Copper Mine, Tongshankou Mine and Sarek Copper Mine, and compiled and completed implementation plans for the construction of smart mines and the promoting science and technology and improve the environment. In accordance with the principle of “overall consideration and step-by-step implementation” and with the “three-year action” as the overall goal, various engineering or scientific research projects are carried out annually to further improve the intrinsic safety level of mines.

The Group also exhibits its concern about road safety and traffic control by deploying dedicated traffic management personnel for daily traffic control. We provide education and training on road safety to drivers on a regular basis, who must pass the examination held by the safety management department before they are allowed to commence work. The Group’s safety management department organizes regular safety examinations and installs GPS-powered real-time monitoring systems and video surveillance systems on vehicles transporting hazardous chemicals for real-time monitoring.

The Group also takes into serious consideration the safety management of its contractors. An outsourcing safety management system has been established, under which all contractors of construction projects must pass a safety qualification examination before they are admitted and a Production Safety Management Agreement (《安全生產管理協議》) would be entered into in order to clarify their respective rights and obligations for production safety. The access points for subcontracting teams were strictly controlled and identified through access control video. Anyone who did not wear a safety helmet or did not wear adequate labor protection were not allowed to enter the construction site, and the mine labor dispatch personnel were removed. At the same time, we will strengthen the investigation and punishment of violations, and remove subcontractors and contractors who work in violation of regulations.

1.3 KPIs

During the reporting period, the Group had 1 outsourced production safety accident, resulting in the death of 1 worker and a direct economic loss of RMB1,027,900, and a loss of 6,420 working days due to work-related injuries (based on the minimum of 60 working days under the Classification Standard for Work-related Injuries and Deaths GB6441-86).

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Case: 1.3.1



On 2 October, the Company conducted safety inspections at -305, -545, -605 middle sections in Tonglvshan Mine and the -785 crushing station.

Case: 1.3.2



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On 31 May, under sponsorship of the Hubei Provincial Emergency Management Department (湖北省應急管理廳) and the Huangshi Municipal Government, the Daye Municipal Government, Daye Nonferrous Metals Group Holdings Company Limited* (大冶有色金屬集團控股有限公司), a controlling shareholder of the Company and Huang'an Mining Rescue Service Co., Ltd. (黃安礦山救護服務有限公司) jointly undertaken the 2023 Hubei Province non-coal mine major disaster emergency drill. This drill was guided by the Wuhan Safety and Environmental Protection Research Institute of Sino Steel (中鋼集團武漢安全環保研究院有限公司). A total of 800 people, including the Hubei Provincial Emergency Management Department, relevant functional departments of Huangshi Municipal Government, staff from Tonglvshan Mine, and villagers residing at the downstream of the tailings ponds, participated in this drill. This major non-coal mine disaster emergency drill considered general situation of Hubei Province's non-coal mines, especially risks faced by underground mines and tailings ponds in the eastern Hubei region during the flood season. It targeted the actual emergency rescue tasks of non-coal mines, stressing practical exercises and real-case scenarios. The drill also focused on two crucial aspects: "command decision-making and emergency response". Additionally, it emphasized emergency responses to four specific scenarios: underground water seepage, blockage of tailings pond drainage wells, flushing of ditches and channels, and breaches in embankments. The objective was to enhance the emergency response capabilities of both enterprises and government entities at all levels. This included comprehensive testing of early warning and prevention, organizing and guiding, coordinated support, as well as emergency rescuing.

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On 28 June, an emergency rescue drill was conducted for underground mine wall or roof collapse accidents in the mining workshop of the Fengshan Copper Mine. This drill tested the feasibility of emergency plans and enhanced the emergency response and coordination capabilities, strengthening workers' awareness of prevention.

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On 28 June, the Group conducted a joint emergency rescue drill for well fire accidents at Tonglvshan Mine for 2023. The drill was well-organized and efficiently executed, achieving the expected goals of testing plans, training teams, refining mechanisms, and enhancing capabilities.

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On 21 August, the Xinjiang Hui Xiang Yong Jin organized safety training among rock scaling workers to enhance their awareness of work place safety and ensure the safety of production. Rock scaling workers from both this company's underground operations and Zhongse Mining Project (中色礦山項目)'s project department participated in the safety training.

This training was conducted by professional safety officers, focusing on various topics including improving safety awareness, acquiring safety knowledge, mastering rock scaling safety skills, and comprehending workplace safety laws and regulations. Participants engaged in on-site safety work exchanges and underwent safety production knowledge tests.

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On 21 June, the Company held the 2023 safety production knowledge training course among middle and senior management personnel. The course was given by an invited guest, namely Professor Jiang Wei, who is from the Emergency Management Research Center (应急管理研究中心) and also served as the director of Department of Safety and Environmental Engineering (安全与环境工程系) of Zhongnan University of Economics and Law.



On 25 June, the smelting plant held a theme speech contest in commemoration of Safety Production Month, with the slogan "Everyone Talks about Safety, Everyone Knows Emergency".

On 16 June, Tonglvshan Mine, Tongshankou Mine, Fengshan Copper Mine, Research and Development Company each held "Safety Production Consultation Day" activities. These events further promoted the atmosphere of "Everyone Talks about Safety, Everyone Knows Emergency" and enhanced workers' awareness of safety production.

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Case: 1.3.3



To strengthen the control of safety risks during the environmental protection upgrade and transformation process, the smelting plant provided safety education and training on high-risk operations such as hot work, working at heights, and lifting operations to external contracted construction units, including personnel from China Construction Sixth Engineering Division (中建六局).

2. Employment Relationship and Labor Standards

The Group complies strictly with the laws, regulations and policies on human resources and social security, and has formulated a comprehensive human resources management system to ensure the legality and compliance of its labor employment. The Group has also established a diversified income distribution system to open up the development and promotion channels, while providing multi-level training and various welfare benefits to its employees.

2.1 Employment

The Group insists on hiring its staff in compliance with the laws and regulations, entering into labor contracts with them to protect their legitimate rights and interests and promoting harmonious and durable labor relations. During the Reporting Period, the Group did not incur any serious violations of laws and regulations in terms of recruitment and promotion, remuneration and dismissal, working hours, holidays, equal opportunities, diversity, anti-discrimination, other treatment and benefits, and forced labor.

- The Group implements a standard working hours system to ensure reasonable working hours for its employees and made reasonable arrangements for its employees to take paid leaves.
- The Group strives to provide a healthy and safe working environment for its employees, distributes necessary protective equipment to them, and arranges regular medical checkups, rehabilitation and recuperation for those working in toxic and hazardous environment.

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- The Group complies strictly with the Labor Law of the People's Republic of China (《中華人民共和國勞動法》) and the Labor Contract Law of the People's Republic of China (《中華人民共和國勞動合同法》) and the labor contract signing ratio of the employees of the Group has reached 100%.
- The Group absolutely forbids the use of child labor and forced labor.
- The Group protects the rights and benefits of its female employees in pregnancy, childbirth and breastfeeding.
- The Group opposes discrimination and treats our employees from different countries, ethnicities, genders and religions in a fair and equitable manner.

2.2 Care for Our Employees

The Group cares for its employees, organizing diverse and interesting cultural and sports activities, as well as physical examination and protection for occupational disease for our employees to enhance their sense of happiness and loyalty.

- The Group takes good care of its employees in need and makes efforts to satisfy their daily needs. We sponsor targeted missions such as support, mutual help and major disease relief to help those suffering from various kinds of difficulties; we also pay condolence visits to the junior level staff and worker exemplar during holidays to extend our greetings and make them feel the warmth like a family.
- The Group provides soccer fields, basketball courts, tennis courts, and badminton courts, and regularly organises various cultural and sports activities, such as basketball, badminton, chess and card competitions, as well as Labor Day and National Day evening parties, for our employees.

2.3 Remuneration and Incentives

The remuneration of our employees is determined based on the value of their positions as well as the Group's operating results and the individual employee's performance, which is assessed through a complete performance appraisal system, under the principle of fairness, equity and transparency.

- The Group has established a remuneration management system which is pegged to the achievement of the Group's targets and the completion of respective unit's tasks, whereby the total remuneration varies with the profits of the Group and the units.
- The Group implements a diversified distribution system based on the performance of its employees with various forms of payments, such as annual salary, agreed salary, output-based salary and commission for marketing staff.
- We aim at sharing the Group's profits with its employees and continuously improve their income.

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2.4 Employee Development

The Group offers education and training programs to our employees with the aim of “growing into an enterprise with learning atmosphere and cultivating employees with learning altitude”, reserving talent for our production and operation and development strategies. While ensuring the sustainable and stable development of the Group, respecting the personality and desires of our employees, we adhere to the training theory of “training for everyone and forever”, aiming to provide it with various outstanding management, technical and operational talents. Our education and training programs are organized under the principle of “effectiveness-oriented and learn for application”, with a hierarchical and categorized training system and a variety of training activities to provide quality resources for the long-term development of our employees.

On 20 November 2023, the Group held the opening ceremony of the youth cadre training class. 63 young cadres from various units of the Group participated in the training.



2.5 KPIs

As at the end of 2023, the Group had a total of 5,568 employees, which are distributed as follows:

1. Age: 0 under 18; 724 between 18 and 29; 859 between 30 and 39; 2,828 between 40 and 49; and 1,157 at 50 or above;
2. Gender: 4,769 males and 799 females;
3. Type of employment: 100% on a permanent basis;
4. Employees trained: 4,769 males in 2023, with a training rate of 100%, 799 females, with a training rate of 100%; the average number of training hours per employee is 29.8;
5. Voluntary turnover rate: 62 in 2023, accounting for 1.11 % of the total employees; among them, 0.43% are between 18 and 29; 0.23 % between 30 and 39; 0.38 % between 40 and 49; 1.01 % are male and 0.11% are female.

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3. Supply Chain Management

3.1 *Environmental and Social Risk Policies for Managing the Supply Chain*

The Group is a state-owned large-scale copper industrial conglomerate engaged in geological exploration, mining, mineral processing, smelting and processing, etc. The Group mainly engaged in non-ferrous metal resources development and trading, and the raw materials required for non-ferrous metal resources development are mostly imported copper concentrates, blister copper and anode plates.

The Group manages its supplier with performance evaluation in accordance with a full set of rules such as Credit Risk Management (《信用風險管理》), Implementation Measures for Investing Responsibility for Non-compliant Operation (Trial) (《違規經營投資責任追究實施辦法(試行)》), and Copper Procurement Management Measures (《銅原料採購管理辦法》), aiming to strengthen the access approval, evaluation and withdrawal of suppliers, improve the supplier evaluation system, standardize the Company management on the full life cycle of suppliers, and improve the quality of supplier resources.

The Group attaches remarkable importance to supply chain risk control and maintains comprehensive assessment and control of the environmental, social and governance risks of its suppliers through on-site inspection, telephone communication, Internet information, and review by third-party agencies, etc.

With the commissioning of the smart factory of Yangxin Hongsheng in 2022, domestic copper smelting capacity has gradually increased. The current imbalance between global copper concentrate supply and demand has intensified, and there has been no major improvement on the raw material supply side, resulting in intensified competition among smelting companies in the same industry. Procurement costs are rising. Affected by increasingly strict environmental protection policies and import policies, it is increasingly difficult for upstream supply manufacturers to maintain normal, continuous and stable production, and the imbalance between supply and demand exists for a long time.

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3.2 KPIs

3.2.1 KPIs (Number of suppliers by region)

Year	Raw Material Sources Region	Region	Number of Suppliers
2023	Imported	Chile	11
		Peru	9
		USA	5
		Mexico	4
		Turkey	2
		Panama	1
		Democratic Republic of the Congo	1
		Kazakhstan	1
		South Korea	1
		Canada	1
		Laos	1
		Malaysia	1
		Serbia	1
		Saudi Arabia	1
		Taiwan	1
		Armenia	1
		Indonesia	1
		Domestic mines	In Province
	Jiangxi		3
	Zhejiang		2
	Sichuan		2
	Auhui		1
	Tibet		1
	Blister copper, anode plate	In Province	1
		Jiangxi	11
		Anhui	1
		Yunnan	1
Fujian		1	

3.2.2 KPIs (Illustrate the management of the supplier, the number of suppliers to whom the practice is enforced, and the related implementation and monitoring methods)

The Group attaches great importance to the exploration of non-ferrous metal resources and purchases raw copper from qualified suppliers in accordance with the Group's criteria. When selecting the suppliers, we take into account the price, the stability and reputation of the goods and the environmental protection policies of the suppliers. Our commerce department evaluates the quality of the supplied goods and the operation of key links in the execution process every six months based on the supplier's supplying strength and ability to fulfill the contract, and submits the evaluation results to the relevant senior managements for approval, so as to ensure that the quality and price of the purchased raw materials meet the requirements. Meanwhile, process implementation was examined from time to time and offer suggestions for improvement.

During the Reporting Period, the Group included the key indicators of the quality of raw materials, i.e. the grade of copper and sulfur, in its annual performance appraisal system, and improved and optimized the system based on the appraisal results.

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3.2.3 *KPIs (Illustrate the practices for identifying environmental and social risks in each link of the supply chain, and the related implementation and monitoring methods)*

The Group assesses the impacts of its suppliers on the environment and society in their production or supply chain by maintaining contact with them, and continuously monitored them in collaboration with the relevant departments of the Group and made appropriate procurement recommendations to the senior management in a timely manner.

During the Reporting Period, the Group sorted out and examined the latest operations development and the credit risks of its suppliers in the supply chain such as abnormal changes in their industrial and commercial registration, major tax violations and defaults, dishonest person subject to enforcement etc., aiming to eliminate those with abnormal operating conditions and high credit risks in a timely manner.

3.2.4 *KPIs (Illustrate the practices for encouraging the suppliers to use more eco-friendly products and services during the screening process, and the related implementation and monitoring methods)*

During the Reporting Period, the Group's commerce department made its utmost efforts to encourage our suppliers to adopt more eco-friendly ways in providing mining services and helped them optimize their production processes.

3.2.5 *Green supply chain: During the reporting period, the Group adhered to the procurement policy of direct supply of copper concentrate to mines and direct supply of blister copper/anode plates to manufacturers, giving priority to green mines as partners, strictly controlling the impurity content of incoming raw materials, and preventing suppliers from supplying plastic films being placed in the compartments of freight transport vehicles to reduce environmental pollution and impact on production. In terms of imported raw materials, for the newly imported copper concentrate from Kazakhstan, foreign businessmen have been urged to reinforce and replace the packaging ton bags to ensure that the spillage of concentrates caused by the rupture of ton bags is reduced, so as to reduce the impact on the environment pollution and impact on production.*

3.2.6 *KPIs (Illustrate the energy saving and emission reduction management requirements for suppliers, and monitoring of supplier gas emissions.)*

The Group attaches great importance to the selection of suppliers and strictly implements supplier admission procedures to carry out supplier admission review. Through on-site surveys, telephone communications, online information, third-party information verification, etc., it extensively collects the basic information and environmental safety of suppliers. Qualifications and other information, suppliers that do not meet national environmental protection requirements, have environmental protection and safety penalties, and have not made rectifications in place will not pass the review. At the same time, in the process of business development, we insist on dynamic assessment of supplier credit and environmental protection status, and forcibly cancel the qualification of qualified suppliers for suppliers that have been subject to national environmental protection and safety inspections and notified, and have not yet completed rectification.

During the reporting period, the Group sorted out and investigated the latest safety and environmental protection status of all suppliers in the supply chain, and promptly eliminated suppliers that did not meet national environmental protection requirements.

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4. Product Responsibility

The Group complies strictly with relevant laws and regulations including the Product Quality Law of the People's Republic of China (《中華人民共和國產品質量法》) and the Metrology Law of the People's Republic of China (《中華人民共和國計量法》), etc. in its production process. All our products and labels have met the applicable national and industrial quality standards. Our products had a 100% success rate in various product quality sampling tests conducted by national, provincial and municipal government authorities. During the Reporting Period, no punishment was imposed on the Group due to violation of laws and regulations in relation to product quality and technical supervision.

- The Group has established comprehensive quality management systems, under which all the products must be thoroughly tested according to customer's requirements and relevant national standards before leaving the factory. Daye Metal has passed and obtained ISO9001 Quality Management System Certificate, ISO10012 Measurement Management System Certificate, ISO14001 Environmental Management System Certificate, ISO45001 Occupational Health and Safety Management System Certificate and ISO50001 Energy Management System Certificate. Daye Metal aims for zero defect in product quality by insisting on the quality policy of "first-class products, services in good faith, management excellence and market development".
- A strict product inspection system has been established to ensure high product quality in highly-effective production process. In addition to its established customer communication platform, Daye Metal also conducts annual customer satisfaction surveys, aiming to understand customers' opinions on the services of Daye Metal. Apart from regular technical seminars, Daye Metal also has a customer complaint mechanism. Containment actions will be taken within 24 hours upon receiving customer complaint to ensure that once a defective product is reported, the cause will be found out within seven days and preventive measures will be implemented, and the customer will be informed of follow-up measures on a timely basis, while internal review will be made and internal management will be improved.
- In order to foster a good quality management culture, Daye Metal promotes a quality-oriented philosophy among its employees, and carries out different quality assurance education and training for its management, technical staff and front-line operators, aiming to continuously improve their awareness of the importance of quality, the quality efficiency and legal compliance in quality through organizing the "Month of Quality" activities, targeted technical challenges and improvement in quality assurance methods.
- Daye Metal attaches great importance to the protection of customer privacy and undertakes to avoid disclosing customer information when signing contracts with customers to protect customer's privacy. Daye Metal did not receive any complaint resulted from the disclosure of customer information.

4.1 KPIs:

A2.5 The total amount of packaging material used in the finished products (in tonnes) and, if applicable, the amount per unit of output.

The packaging materials used for the finished products are mainly steel belts, with a total consumption of 563 tonnes and 0.8 kg per tonne of production.

B6.1 The Group did not identify any cases of non-compliance of its products and services with the relevant health and safety legislation.

B6.2 According to the 2023 customer satisfaction survey, customer satisfaction with the Group is 98.4%.

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- B6.3 The Group is committed to complying with the national policies and laws and regulations pertaining to the protection of intellectual property rights. During the Reporting Period, the head office of the Group did not receive any reports on violations in the protection and safeguarding of intellectual property rights.
- B6.4 The Group has established a product quality accountability management system, and conducts regular assessments of customer satisfaction, initiates quality accountability for complaints against the Company's major products (copper cathode, gold, silver and sulfuric acid), monitors the quality of production, operation and sales, formulates preventive measures and supervises their implementation.
- B6.5 During the Reporting Period, the head office of the Group did not receive any complaints due to the leakage of customer information.

4.2 Application of Reporting Principles

The product responsibility of Daye Metal is identified according to the quality management system standard GB/T 19001-2016/ISO 9001:2015.

Total amount of packaging materials used in finished goods (in tonnes) and, if applicable, the amount per unit of output. The packaging material for finished goods are mainly steel belts, with a total consumption of 563 tonnes and 0.8 kg per tonne of production. The process of calculation is as follows: the total copper cathode production in 2023 is 620,886 tonnes (smelting plant: 289,295 tonnes, Yangxin Hongsheng: 331,570 tonnes) and the finished copper cathode products are packaged at 2.50 ± 0.05 tonnes/bundle, resulting in 248,346 bundles. The weight of the packaging material is 2 kg/bundle, so the total weight of the packaging material will be $115,718 \text{ bundles} \times 2 \text{ kg/bundle} = 231,436 \text{ kg} = 231 \text{ tonnes}$, and the amount of packaging material per unit of production is $2 \text{ kg/bundle} \div 2.5 \text{ tonnes/bundle} = 0.8 \text{ kg/tonne}$.

4.3 Illustration

The Group's "Dajiang" brand copper cathode, "Dajiang" brand gold bullion and "Dajiang" brand silver have all been named as a Famous Brand Product of Hubei Province. Among them, "Dajiang" brand gold bullion and "Dajiang" brand silver have passed the qualification certification of the London Bullion Market Association (LBMA), and "Dajiang" brand Grade-A copper, which has been officially recognized by the international community for its quality, is a brand registered with the London Metal Exchange (LME) for delivery.

In 2023, copper cathode, sulfuric acid, gold bullion, silver and other products of the Group have been registered with domestic and foreign exchanges and have been inspected and confirmed by authoritative testing institutions at home and abroad. Their quality fully meets the standard requirements and reaches the international advanced level.

5. Anti-corruption

The Group gives particular attention to improving the integrity of the Party members and maintains its anti-corruption efforts in strict compliance with the relevant national laws and regulations of the PRC as well as basic rules and regulations of the Company, including the Supervision Law of the People's Republic of China 《中華人民共和國監察法》 and the Regulation of the Communist Party of China on Disciplinary Actions 《中國共產黨紀律處分條例》, upholding the general line of making progress while maintaining stability, closely following the theme of high-quality development, conscientiously performing its supervision duties, giving full play to the role of supervising and guarding implementation and promoting and improving development, thereby providing a strong guarantee for the green and high-quality development of the Group. During the Reporting Period, the Group did not incur any cases of corruption and other violations.

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- The Group perseveringly carries out various forms of alert education activities, and with focus on typical cases of violation of discipline and law that are investigated and dealt with at higher levels, conducts special education activities within the Group, allowing employees to learn profound lessons and enhance their awareness of integrity.
- The Group strengthens supervision and restraint, pushing the formulation, revision and improvement of a number of important systems with focus on important fields and key sectors such as bidding and procurement, trade business, and asset management to further standardize the operation of powers, thus squeezing the breeding room for corruption.
- The Group improves the reporting and accusation mechanism, making publicly available the complaint hotline, mailboxes and methods of sending letters and visits about reporting corruptive acts, with the aim of regulating the handling of all kinds of reported information.
- The Group strengthens the building of discipline inspection teams and mobilizes its discipline inspection officials to carry out intensive learning and training seminars, which has enhanced their political literacy and has improved their comprehensive ability to perform supervision and enforcement accountability.

6. Community Investment

The Group attaches importance to the fulfillment of social responsibilities, and advocates the concepts of patriotism, integrity, law-abiding, innovation, amiability and responsibility to upgrade the employees' moral accomplishment. The Group actively participates in welfare, charity and public undertakings to contribute to the growth of enterprises and surrounding communities, and our employees' sense of social responsibilities has been continuously strengthened.

Illustration

Pay attention to education – invite schools to participate in corporate activities



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Co-construction of enterprises and localities – flower arrangement training



Co-construction of enterprises and localities – Carry out psychological care activities



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Co-construction of enterprise and local area – vocal training



Co-construction of enterprise and local area – Western pastry training



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Co-construction of the enterprise and the local area – blind date and friendship



Co-construction of enterprises – spiritual exchanges



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