

重慶鋼鐵股份有限公司

Chongqing Iron & Steel Company Limited

(H Share Stock Code: 1053) (A Share Stock Code: 601005)

2022

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



2022 Environmental, Social and Governance Report

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ABOUT THE REPORT

Solemn Commitment

The information and data disclosed in the Report are derived from the Company's statistical reports and official documents and have been audited by relevant departments. The Company guarantees that there are no false records or misleading statements contained in the Report and is responsible for the truthfulness, accuracy and completeness of the contents.

Basis of Preparation

The Report is mainly based on the Environmental, Social and Governance Reporting Guide and Related Listing Rules of the Stock Exchange of Hong Kong Ltd., the Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR4.0) of the Chinese Academy of Social Sciences, the Notice on Strengthening the Social Responsibility Commitment of Listed Companies cum Issuing the Guidelines on Environmental Information Disclosure for Listed Companies on the Shanghai Stock Exchange of the Shanghai Stock Exchange and the Guidance on Better Fulfillment of Social Responsibility by State-owned Enterprises of the State-owned Assets Supervision and Administration Commission of the State Council.

Scope of Report

Unless otherwise specified, the Report mainly describes the environmental, social and governance performance of Chongqing Iron & Steel and its subsidiaries in terms of their practices in social responsibility fulfillment and performance during the period from January 1, 2022 to December 31, 2022. The currencies involved in the Report shall be in CNY.

Name Description

"China Baowu" "Baowu Group" used in the Report is the shorted form of China Baowu Steel Group Corporation Limited. "Zhongnan Iron and Steel" used in the Report is the shorted form of "Zhongnan Iron and Steel Co., Ltd. of Baowu Group". "Chongqing Iron & Steel", "Company", and "We" are the shorted form of "Chongqing Iron & Steel Company Limited".

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Preparation Process

Investigation of the concerns of stakeholders – Report planning – Report framework construction – Report preparation training – Collection of materials – Report preparation – Internal discussion – Report design – Solicitation of opinions – Report revision – Management review – Board of Directors review – Release of the final draft.

Text Language

The Report is available in simplified Chinese, traditional Chinese, and English. If there is any discrepancy between the three versions, the simplified Chinese version shall prevail.

Form of Release

The Report will be published in printed version and PDF electronic version. The PDF electronic version can be downloaded in the social responsibility column at the official website of the Company. To reduce the impact of printing on the environment, we encourage readers to download the electronic version whenever possible.

The Report is printed on recycling paper. To save paper, we will limit the length to the greatest extent. For more information, please visit the official website, WeChat official account or the annual financial report of the Company.

MESSAGE FROM THE CHAIRMAN

The year 2022 was the year of the victory of convening the 20th National Congress of the CPC, the first year for China to start the new journey of building a modern socialist country in an all-round way and marching towards the second centenary goal, as well as the year for Chongqing Iron & Steel to give full play to the advantages of mixed ownership, thoroughly advance the transformation and upgrading of the Company and stepping into the track of high-quality development. We persistently applied Xi Jinping's thought on socialism with Chinese characteristics in the new era to reshape our spirits, all the staff worked together with one heart and one mind, and actively "practised skills", effectively coped with the impacts and challenges, breakthrough and progress have been made in terms of a number of operating indicators, the output of crude steel and rolled steel reached a record level in history, and a new chapter for the high-quality development of green and intelligent manufacturing started.

Estimation and calculation were done first in advance before the start of work and production, pursuing perfection, and breakthrough was made in operation and management. In the face of the complex and severe external environment, we actively practiced the concept of "Identifying gaps through comprehensive benchmarking, cost reduction, efficiency improvement, excellent management and consumption limit", under the strategic leadership by China Baowu and the overall deployment by Zhongnan Iron and Steel, we stuck to the core of efficiency and promoted the production and operation organization mode that "Estimation and calculation were done first in advance before the start of work and production". By implementing measures such as precise benchmarking, cost reduction and potential tapping, deepening reform as well as infrastructure management and grassroots management, the competitiveness of the Company had been significantly improved, the deep vitality of the Company has been released, the capacity of the system has been upgraded and the technical and economic indicators continued to be improved.

Pursuing energy conservation and carbon reduction, environmental protection and improvement, and accelerating the promotion of the "treatment of three wastes – waste gas, waste water and solid waste" and "cleaning, greening, beautifying and civilizing". We earnestly implemented Xi Jinping's thought on ecological civilization and the national Yangtze River protection strategy, took "Higher than Standards, Better than Urban Areas and Integrated into City" as the goal, and the "treatment of three wastes – waste gas, waste water and solid waste" and "cleaning, greening, beautifying and civilizing" as effective means, accelerated the implementation of China Baowu's master plan for Yangtze River protection, continued to promote "ultra-low emission of waste gas", "zero discharge of waste water" and "zero discharge of solid waste"; optimized the construction of "dual control" and "dual carbon" management system, adapted to the national "dual control" and "dual carbon" requirements and the Company's requirements for energy-conservation and low-carbon development, identified differences through comprehensive benchmarking, continuously consolidated the achievements in the construction of green urban steel factories. We strived to promote the continuous progress in the green index, with all energy conservation and emission reduction indicators having achieved targets, creating "Chongqing Iron & Steel Immersed in Green and Charming Landscape".

Integrating digital transformation with intelligent manufacturing, and practicing innovative development and intelligent manufacturing. In 2022, we completed the construction of an integrated system for science and technology management, achieving efficient operation online, overall planning and resource sharing in the science and technology innovation management. The Company saw 160% year-on-year increase in the number of patent applications, and implemented 68 scientific research projects. With a patent innovation index of 63.5, it ranked 33rd among Chinese steel enterprises. The Company made every effort to build a new model of “One Mill” intelligent control, closely integrated industrial software with the site, and embedded intelligent manufacturing into production and operation business. In 2022, the “Four Unifications” index, the data and equipment utilizing platform index were all greatly improved, and Zhongnan Iron and Steel ranked first in terms of the improvement in the digital intelligence index, overperforming in achieving annual target.

Enhancing the “three senses (sense of identity, sense of belonging and sense of happiness)”, disseminating culture and creating a harmonious social environment. We set up various types of “Voice of Staff” platforms, gives play to the role of employees in democratic supervision and suggesting ideas, and solved 211 problems; continued to carry out “I do practical work for the masses” campaign, improving the dining environment, and visiting and expressing consolation and blessings towards staff during important festivals and high temperature periods. To protect the health of our staff, we organised 566 volunteer services for fighting against the COVID-19 pandemic and arranged for 24 nucleic acid tests on our own initiative. We united with and mobilised our staff to work together towards the same objective with one heart and mind, and successfully won the title of an “AAA” grade enterprise in Chongqing for harmonious labour relations, which has significantly increased the sense of identity, sense of belonging and sense of happiness of our staff. Taking “Red Rock (《紅岩》)”, a “textbook for revolution”, as a reference, the Company choreographed the red (socialist-minded and socialist-related) dance drama titled “A Heart of Loyalty Facing the Sun (《丹心向陽開》)”, creating a cultural brand for Chongqing Iron & Steel. We also actively carried out public welfare activities, served the rural revitalisation strategy and integrated into the development of places where we operated, so as to build a harmonious social environment.

2022 Environmental, Social and Governance Report (Continued)

A thousand sails are racing, the most courageous one will be the winner; a hundred boats are contesting, the most struggling one will be the first finisher. The new journey of building a modern socialist state in an all-round way has started, we will unite more closely around the CPC Central Committee with Comrade Xi Jinping as the core, hold high the great banner of Xi Jinping's socialist thought with Chinese characteristics for a new era, comprehensively study and implement the spirit of the 20th CPC National Congress, stick to striving for rational layout of production lines, superior product performance, precise market matching and leadership in manufacturing capacity with a strict and demanding spirit, a serious attitude, a vigorous and resolute style, and a real and practical action, pursue a beautiful environment and the integrated development of industries and city, to build the Company into an "eco-friendly" steel manufacturer "surrounded by lush mountains and lush waters", and make every effort to create a new situation of high-quality development for Chongqing Iron & Steel!



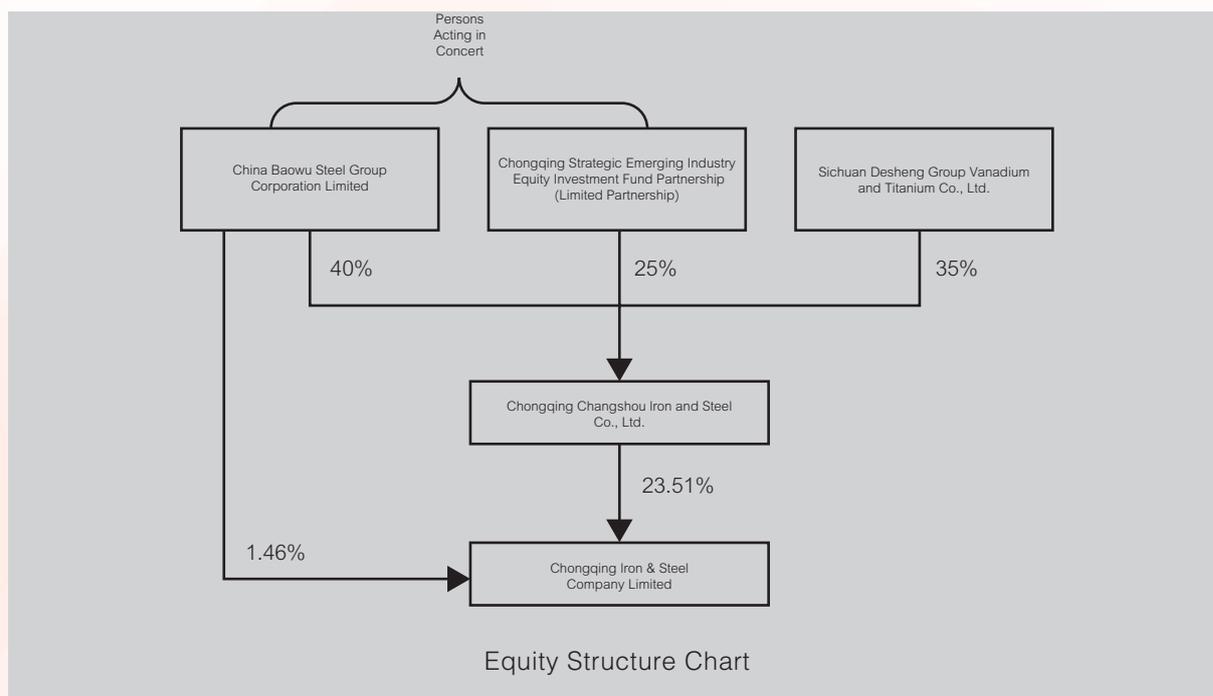
Secretary of the Party Committee and Chairman of Chongqing Iron & Steel Company Limited
Xie Zhixiong

ABOUT CHONGQING IRON & STEEL

(I) Company Profile

Founded in August 1997, Chongqing Iron & Steel issued H shares (stock code: H1053) on the Stock Exchange of Hong Kong (HKEX) in the same year, and A shares (stock code: A601005) on the Shanghai Stock Exchange in 2007.

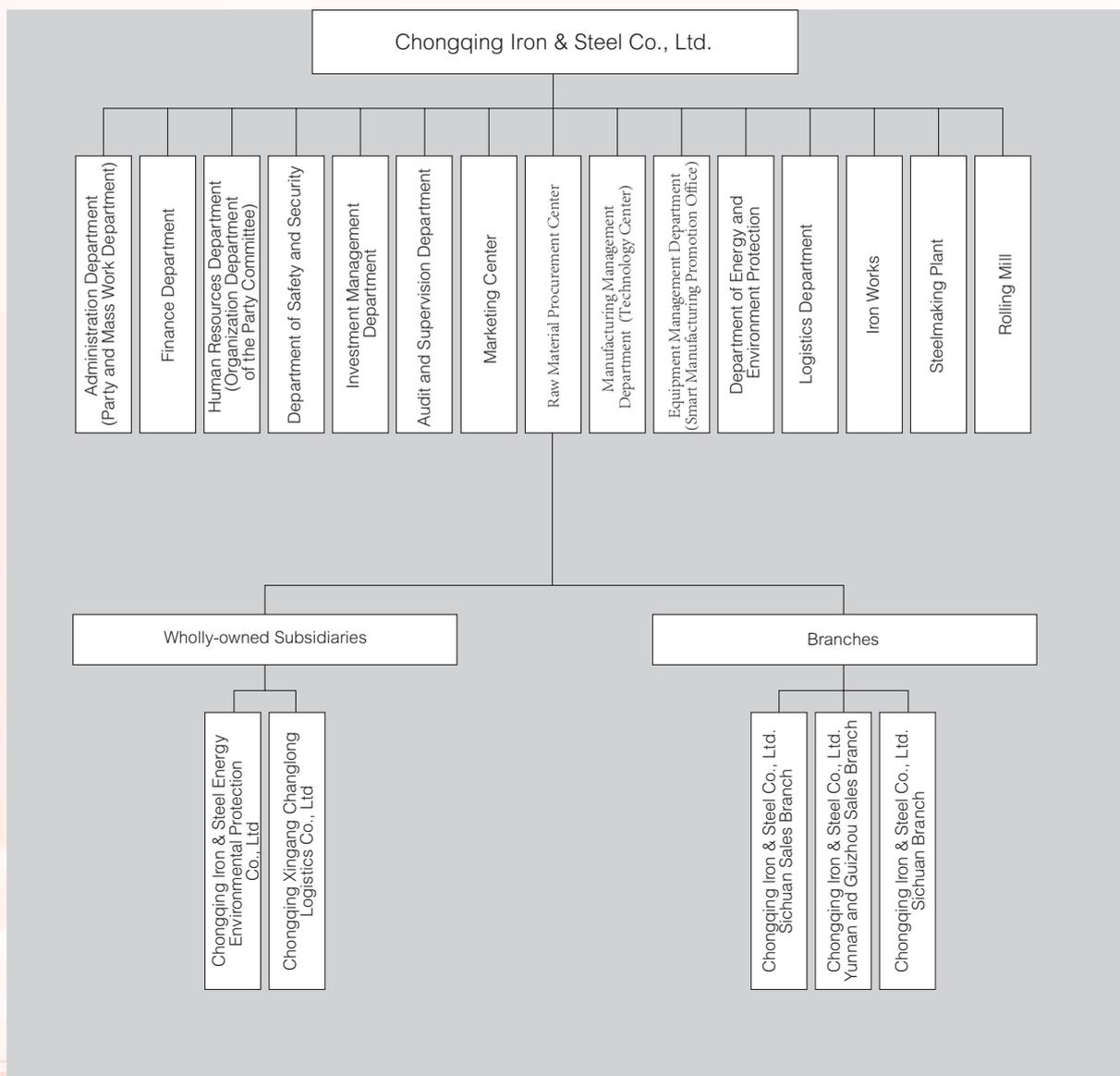
The predecessor of Chongqing Iron & Steel is Hanyang Iron Works founded by Zhang Zhidong, Viceroy of Hu-Guang, in 1890. In March 1938, Hanyang Iron Works moved west to Chongqing, and was completed and put into operation in March 1940. In January 2007, Chongqing Iron & Steel started its move for energy conservation and environmental reasons and moved from Dadukou District to Changshou District of Chongqing. At the end of 2017, Chongqing Iron & Steel completed judicial reorganization, and in December 2020, China Baowu became the actual controller of the Company. Integrating into China Baowu, Chongqing Iron & Steel is resolutely striving towards the goal of “building itself into a high quality green and intelligent manufacturing steel enterprise with a production capacity of 10 million tons” with a new outlook, and is committed to growing into a leader in the steel industry in southwest China and making new brilliant achievements in the new era.



2022 Environmental, Social and Governance Report (Continued)

In 2022, the Company produced 7.23 million tons of iron, 7.8735 million tons of steel and 8.3424 million tons of commodity billet, with an annual operating revenue of CNY36.562 billion and a total profit of CNY-1.202 billion. The Company has the following main product lines: 4,100mm wide and thick plates, 2,700mm medium plates, 1,780mm hot rolled sheets, and long products, and the products are applied in machinery, construction, engineering, automobile, motorcycle, shipbuilding, offshore oil, gas cylinders, boilers, oil and gas pipelines and other industries. The Company's steel for hull structure, boiler and pressure vessel won the title of "China Famous Brand", and four other products won the title of "Chongqing Famous Brand". The Company has been awarded the National May Day Labor Certificate, National Advanced Enterprise for Implementing Excellent Performance Model, Chongqing Famous Trademark, Chongqing Quality and Efficiency-oriented Enterprise, Chongqing Contract Credit and Trustworthy Enterprise and other honorary titles.

(II) Organizational Structure



2022 Environmental, Social and Governance Report (Continued)

(III) Corporate Culture

Culture instills in us confidence. Chongqing Iron & Steel's corporate culture is underpinned by our position and belief. Over the past 100 years, these position and belief have been translated into the mission, vision and value proposition of employees at Chongqing Iron & Steel. These are fused into our work and life, become our collective personality, and evolve into Chongqing Iron & Steel people's commitment to the future vision.

Mission:	Keep the national strength of steel alive and build a green and wonderful life
Vision:	To become a leader in the steel industry in Southwest China
Development goal:	To create a high-quality green intelligent steel manufacturer with an annual output exceeding 10 million tons
Core values:	integrity, innovation, greenness and shared benefits

(IV) Big Events in 2022

29 January

Chongqing Iron & Steel Science and Technology Innovation Management System was launched for trial run, providing a unified and efficient business platform for scientific research work.

18 February

The second series in the steelmaking plant successfully resumed its production, which was a concrete step to implement the Company's "focusing on efficient operation and expanding breed structure".

23 March

No. 5 and No. 6 dry quenching electric locomotive cranes in the iron-making plant achieved unmanned production operation, marking a solid step towards the replacement of "3D" posts in intelligent manufacturing in terms of intrinsic safety in the iron-making plant.

21 April

A special meeting was held with Changshou District to promote the high quality and green development of Chongqing Iron & Steel. At the meeting, a consensus was reached on promoting the high quality and green development of Chongqing Iron & Steel, facilitating the achievement of the goals set out in the action plan for the "3113" project of Changshou District, and ensuring the construction of an international, green, intelligent and humanistic Changshou City in China starts well and makes a good start.

2022 Environmental, Social and Governance Report (Continued)

13 May

In order to further enhance the happiness index of employees and build a strong pension protection system for them, Chongqing Iron & Steel released the Management Measures for Corporate Annuity Scheme, to establish a corporate annuity system for employees, so that they can live a warm and worry-free life after retirement.

15 June

Chongqing Iron & Steel held a ceremony for Unit No. 1 to be connected to the grid at the site of the surplus gas power generation project. Unit No. 1 will increase its self-generated electricity by 960,000 kWh per day after it reaches its designed production capacity and efficiency, which will be of far-reaching significance for ensuring the power supply and promote energy conservation and emission reduction of the Company, and helping with the completion of the “dual carbon” objective.

12 July

The award ceremony for the “1st Top Ten Annual Influential People in Manufacturing Industry in Chongqing” was held in Yubei District, and Zhang Wenxue, Secretary of the Party Committee and Chairman of the Board of Directors of the Company, was elected as one of the “Top Ten Annual Influential People in Manufacturing Industry in Chongqing”.

10 August

Mr. Xing Jun, member of the party committee and deputy director of Chongqing Municipal Development Committee of Culture and Tourism, visited Chongqing Iron & Steel to inspect and research the creation of AAA-level tourist attractions.

16 September

A production resumption and lighting ceremony was held at blast furnace No. 4 of Chongqing Iron & Steel. Blast furnace No. 4 reached its designed production capacity on 23 September and the fuel ratio decreased to 505kg/t · Fe.

12 October

Chongqing Iron & Steel’s “Smart Production Line” double high rods produced a total of 8,240 tons of vanadium-free alloyed $\Phi 12\text{mm}\sim\Phi 14\text{mm}$ HRB400E rebars adopting controlled rolling and cooling process, realizing stable reducing quantity batch production of alloyed rebar of such specification.

21 November

Chongqing Iron & Steel held the 19th meeting of the ninth session of the board of directors, at which Xie Zhixiong was elected as the chairman of the ninth session of the board of directors and Meng Wenwang was appointed as the president of the Company.

23 December

Chongqing Iron & Steel held a project launching ceremony at the site of shed (B1) project of the Logistics and Transportation Department. The project is an important environmental protection project for the practice of green development of the Company, reflecting the Company's firm determination to follow the road of green development and build an "eco-friendly" steel manufacturer "surrounded by lush mountains and lush waters".

TOPIC I: GREEN AND INTELLIGENT MANUFACTURING, VIGOROUS EFFORTS FOR LOW-CARBON DEVELOPMENT

Chongqing Iron & Steel remains committed to following the high quality development path with ecology as the priority and, thoroughly implements the action plans of China Baowu and Zhongnan Iron and Steel on peak carbon emission and carbon neutrality, studied the "dual carbon" path and carbon reduction measures by taking into account the current situation of energy structure and energy use and recycling, and prepared the Carbon Emission Peak and Low-carbon Development Plan (2022–2035) of Chongqing Iron & Steel, which sets "near, medium and long-term" carbon reduction targets in three stages (peaking of total amount in 2023, 29% carbon reduction in 2030 as compared to 2020 and 37% carbon reduction in 2035 as compared to 2020).

1. Governance Structure

In 2022, we improved and perfected the energy control and governance structure of the Company. Firstly, we brought into play the function of organizations and established a company-level energy and environmental protection management committee headed by the President and with the heads of each process as team members to guide and supervise and urge various units (processes) to assume their respective main responsibility and strengthen and collaborate in promoting energy management. Secondly, we brought into play the effectiveness of professionalism, through the energy and environmental protection professional committee, to solve the important (difficult) energy and environmental protection-related problems of the Company, to provide technical support for the green and low-carbon development and smooth production of the Company.

2. Planning for Carbon Reduction

Implementing “Planning for Carbon Reduction” in an in-depth manner. In accordance with the requirements of the dual carbon task list, we entrusted China Metallurgical Industry Planning and Research Institute to complete the preparation of the Plan of Chongqing Iron & Steel for Peak Carbon Emission and Low Carbon Development, and to promote the work on “dual carbon” in accordance with the requirements of the Plan.

Promoting energy structure adjustment in an orderly manner. The power supply, power grid, power load, energy storage – integrated green electricity project has been terminated due to the limitation of land resources; a distributed photovoltaic power generation project is planned to be built to replace, the 10MWp photovoltaic power generation project is proposed to be built on the rooftop of double high rods and other plants, the feasibility study report on which has been completed and which has been included in the fixed assets investment projects in 2023.

3. Carbon Reduction through Improvement of Efficiency

We have carried out comprehensive benchmarking for gap identification, continuously reduced the iron-steel ratio and reduce carbon dioxide emissions. By optimising the scrap blending model, increasing the amount of scrap used in the converter and using the new scrap preheating equipment to maximise the addition of scrap to increase production of crude steel and reduce CO₂ emissions while ensuring the temperature of the molten steel.

Improving the efficiency of energy use and achieving full recycling of secondary energy. In view of the five different heating modes of the coking process, the blast furnace gas and coke oven gas balance was optimized, priority was given to ensuring the use of heating furnace and hot blast furnace, and gas recovery was maximised through the construction of new sub-critical gas power generation equipment, with all recovered gas used for power generation, reducing purchased electricity by 90 million kWh and reducing carbon dioxide emissions by 54,000 tons. Three new sets of flue gas waste heat recovery devices were added, which could increase steam recovery by 108,000 tons, increase self-generated electricity by 15 million kWh and reduce carbon dioxide emissions by 13,000 tons each year.

4. Green Carbon Reduction

Enhancing the low-carbon awareness among all staff. Competitions on professional knowledges on energy conservation and carbon reduction and energy conservation labour competitions were held on National Low Carbon Day and in Energy conservation Week, to motivate all units under the Company to carry out energy conservation work, starting with themselves; training on the “Work Programme of China Baowu Group on Peak Carbon Emission” was provided for 50 employees at plant level and other levels, to thoroughly disseminate China Baowu’s dual carbon targets.

2022 Environmental, Social and Governance Report (Continued)

Actively promoting clean transport. For the transportation of bulk raw materials and products entering in and leaving the plant, a clean transport vehicle supervision and video monitoring system was established, to ensure that the emission by the vehicles entering and leaving the plant areas reached the standard; transport vehicles below National V emission standard were eliminated and uniformly upgraded to transport vehicles above National VI emission standard, and electric heavy trucks were newly added; the shipment capacity of in-plant trains was increased and some car transport was replaced, reducing process carbon emissions by 26,000 tons.

Development and utilization of clean energy. After the subcritical unit 2# was put into operation, the original GE unit was withdrawn from operation and the GE unit was converted to use natural gas, so as to activate assets, increase the proportion of use of green electricity and reduce carbon emissions. A feasibility study on the conversion of the GE unit to use natural gas has been completed and been included in the 2023–2025 action plan.

Research and development of green products. We actively promoted green product certification, certifications for three products including thick plates for bridge structures, hot rolled sheets and strips of carbon structural steel and hot rolled ribbed steel bars have been completed, and environmental product declarations have been released on the EPD platform for the steel industry.

Case: Clean Transport Helps Dual Carbon

We vigorously promoted clean transport, to reduce carbon emissions in the transportation process. We eliminated transport vehicles below National V emission standard, upgraded 396 transport vehicles to be above National VI emission standard and added 4 new electric heavy trucks; implemented in-plant railway transportation transformation and increased the railway shipping capacity for bars to 150,000 tons/month, substituted 10 vehicles for transportation and reduced carbon emissions by 26,000 tons in process.



2022 Environmental, Social and Governance Report (Continued)

5. Promoting Carbon Asset Management

We strengthened training on carbon emission knowledge, participated in training activities such as China Baowu Carbon Emission Process Benchmarking, Green Development Index Carbon Accounting and Energy Conservation Propagandization Week, to enhance our service capabilities; organized and planned key tasks for “6C” carbon reduction and tracked the progress of task implementation; organized and planned the work on planning for peak carbon emission and low carbon development, planned the construction of the ECM II carbon emission informationization platform and further improved the level of carbon emission informationization; completed the work on fulfillment of contracts of Chongqing Iron & Steel in 2018, purchased 277,100 tons of carbon emission quotas through bidding procedures, actively consulted Chongqing Carbon Credit Platform on certified voluntary emission reduction (CQCER) and quota trading and prepared for the next step of trading.

6. Energy conservation and Emission Reduction Project

➤ *Promoting upgrading of energy conservation projects*

We completed the construction and upgrading of some energy-saving projects and successfully put them into operation. The two projects, i.e. the 5# and 6# Coking Riser Waste Heat Recovery Project and the 1,780mm Heating Furnace Flue Gas Waste Heat Recovery Project achieved a total energy conservation of 20,800 tons of standard coal and carbon dioxide emission reduction of 49,000 tons; connection of subcritical gas power generation units 1# and 2# to the grid, gas escape of 340 million m³, increase of electricity generation by 90 million kWh, increase of gas power generation efficiency from 31% to 38% and reduction of carbon dioxide emission by 117,000 tons.

➤ *Exchange on energy conservation and carbon reduction technology*

We conducted exchanges and trainings and introduced advanced energy-saving technologies. We actively organised relevant technical staff to participate in energy conservation training and energy conservation and low carbon technology exchanges in the industry, and carried out 11 exchanges on energy conservation technologies including energy-saving fans and pumps, energy conservation insulation materials and improved waste energy recovery.

Case: Technological transformation, taking a deep dive into the energy-saving potential in the steel rolling process

The heating furnace is the main potential point for energy saving and efficiency improvement in the steel rolling process. For the flues of the three heating furnaces at the hot rolling production line of Chongqing Iron & Steel, the traditional method of preheating gas with high temperature flue gas was adopted, with high exhaust gas temperatures and inadequate thermal efficiency utilization. Taking advanced energy-saving technology as an entry point, the Company actively promoted the recovery and utilization of waste heat of flue at the three heating furnaces. After the project is completed and put into operation in 2022, the annual steam production will increase by 108,000 tons and the self-generated electricity will increase by 13.59 million kWh/year, further enhancing the electricity self-generating rate of the Company.



TOPIC II: TAKING RESPONSIBILITY AS STRONG AS “STEEL”, EMERGENCY AID TO FIGHT THE MOUNTAIN FIRE

Chongqing Iron & Steel pays close attention to the development of the places where it operated, responds actively to local needs, fulfills its social responsibilities in collaboration with relevant parties and contributes to the harmony and co-existence in communities.

1. Overview of our Responsibilities Fulfilment

A mountain fire in Chongqing raised concern among the people across the nation in August. In the evening on 23 August, a mountain fire breaks out in Changshou District, Chongqing, and the local government made an urgent effort to mobilise all parties to fight the fire. Upon receiving the government’s call, Chongqing Iron & Steel responded promptly, took immediate action uniting with Baowu Environment Resources, Baowu Intelligent, CISG, MCC Baosteel and other enterprises in the ecosystem to, bravely bucking the trend and actively participating in the rescue and relief.



A Rescue Team was established



Members of Qingfeng Volunteer Team visited frontline units



2. Action and Effectiveness

After arriving at the scene, the “soldiers”, in accordance with the division of work arranged by the headquarters at the scene, raced against time and fought the fire, immediately put into the fire fighting and rescue operations. The evacuation team members organized the evacuation of the villagers in the fire region at the fastest speed; the material transfer team members tacitly formed a material conveying belt, united with professional firefighters and armed police to carry rescue materials to the designated location. In the face of the winding steep mountain roads, hot and intolerable high-temperature weather, they were full of “combat effectiveness”; “We do not seek to make achievements, only seek to come in handy at critical times, so that the government, the masses can rest assured.” The rescuers said.



The mountain fire was put out



With the joint efforts of all rescue forces, the local mountain fire in Changshou District was entirely put out on 27 August. Chongqing Iron & Steel and the enterprises in the ecosystem input a total of 1,030 rescuers to fight the fire. They are a group of ordinary steel workers who normally work with steel; in wartime, they become the most beautiful “retrograders” and admirable steel warriors.



3. Comments from Relevant Parties

They raced against time and the fire, evacuating villagers, transferring materials, cleaning fire barrier, monitoring the development of the fire, laying fire hoses and cleaning up the remaining fire at the scene to prevent reignition..... The rush to help with the putting out of the mountain fire showed to the society the sense of responsibility and courage of Chongqing Iron & Steel as a member of Red Baowu.

In October 2022, Chongqing Iron & Steel was awarded the honour of “Collective having outstanding performance in mountain fire prevention and control and drought relief work in Changshou District” by the CPC Changshou District Committee in Chongqing and the People’s Government of Changshou District in Chongqing.

The official media, including China Metallurgical News, China Ironmaking.com and Association of Listed Companies in Chongqing, reported on the battle against the mountain fire.

The most beautiful retrograde motion by the rescue team touched the people of our nation and the families of the staff. The wife of a rescue team member wrote a moving family letter when she learned that her husband had joined the fire-fighting and rescue team: I would like to express my deep respect on behalf of my family to the many fire-fighting heroes who were unafraid of danger and were chivalrous and would like to take responsibility, we admire and respect you for your justice and fearlessness, and you are real heroes!

4. Prospect and Outlook

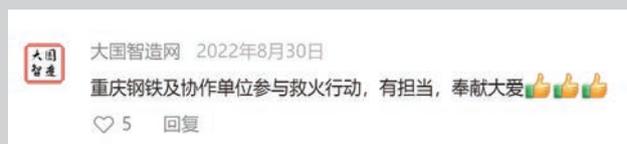
Chongqing Iron & Steel will always carry forward the spirit of Red Baowu, i.e. “We will never change our original aspiration, and will strive to achieve our mission”, and the more urgent, difficult, dangerous and critical the moment, the more we should dare to “show our swords”, we should not only actively participate in various social rescue and public welfare activities ourselves, but also collaborate with the enterprises in the ecosystem of the location. We should not only actively participate in various social rescue and public welfare activities, but also work together with the enterprises in the ecosystem of the location to fulfil our social responsibility and contribute to the harmonious development of society!



Praise from Changshou District, Chongqing Municipality



Media Coverage



Appraisal form the Society

INTEGRITY · ESTABLISHING SUPERIOR VALUE

Integrity and trustworthiness are fundamental to the survival and development of an enterprise. Chongqing Iron & Steel consistently operates in good faith according to laws and regulations. It improves the governance structure, keeps a bottom line for clean operations, tightens ESG management, and builds an undertone of integrity and creates win-win value with a responsible attitude towards all stakeholders.

(I) Governance Overview

1. *Improving the Governance Structure*

The Company strictly complies with the Company Law of the People's Republic of China, the Securities Law of the People's Republic of China, the Code of Corporate Governance for Listed Companies and other relevant laws and regulations and has established a corporate governance structure with a clear division of labor and mutual checks and balances among the General Meeting of Shareholders, the Board of Directors, the Supervisory Committee and the Managers, to ensure science-based and rational decision-making and efficient operation of the Company.

In 2022, the Company held three shareholders' meetings, 14 meetings of the Board of Directors, 14 meetings of special committees of the Board of Directors and 7 meetings of the Supervisory Committee.

The Company has established a senior executive remuneration distribution mechanism composed of annual salary for the post, annual salary for the term and special incentives, so that the executive compensation is compatible with the development strategy of the Company and the performance of the Company's sustainable development, giving play to the incentive function of compensation and supporting the sustainable and sound development of the Company.

2. *Standardizing Information Disclosure*

The Company attaches importance to true, accurate, complete, timely and fair information disclosure. In 2022, the Company disclosed a total of 166 announcements on issues closely related to production and operation, including the 2021 Annual Report, the 2022 Quarterly Reports, fixed asset investment projects, the change of management personnel and related party transactions, and the information disclosure was standardized. In August 2022, as comprehensively evaluated by the Shanghai Stock Exchange, the Company's information disclosure work during the 2020–2021 period maintained at B-level rating.

3. *Paying Attention to the Rights and Interests Protection*

➤ Shareholders' Rights and Interests

The Company has formulated the Articles of Association to set detailed provisions on the basic principles, forms, conditions, scheme research and demonstration procedures, decision-making mechanism and policy adjustment of profit distribution, to provide institutional guarantee for shareholders' rights and interests. Meanwhile, the Articles of Association clearly grants rights to small and medium-sized shareholders, especially when it comes to profit distribution, and provides full protection for their rights and interests.

➤ Investors' Rights and Interests

The Company formulated Management Measures for Investor Relations to strengthen two-way communication with investors and potential investors, enhance investors' understanding of the Company, promote the improvement of the corporate governance structures, realize the healthy and rapid development of the Company and maximize the interests of shareholders, including the majority of small and medium-sized investors.

• Improving the Voting Mechanism for Small and Medium-sized Investors

The Company abides by the Opinions of the General Office of the State Council on Further Enhancing the Protection of the Legitimate Rights and Interests of Small and Medium-sized Investors in the Capital Market and other relevant laws, regulations and normative documents, and has established and improved the voting mechanism for small and medium-sized investors. On-site voting and network voting are adopted during the general meeting of shareholders; when major matters affecting the interests of small and medium-sized investors are deliberated at the shareholders' meeting, the votes by small and medium-sized investors are separately counted in accordance with regulations, and the separate vote counting results are disclosed to the public in a timely manner and submitted to the securities regulatory authority.

2022 Environmental, Social and Governance Report (Continued)

- Multi-channel Two-way Communication Platform

The Company managed investor relations in various forms through communication platforms such as shareholders' meetings, performance presentations, investor group receptions, creditor shareholder groups and "005 Steel Wire Community" to build a bridge of trust between the Company and investors and raise investors' awareness about the Company. Investor communication covers macroeconomic environment, medium-industry development, micro-enterprise operation and other aspects, with a focus on the Company's operating results, raw material prices, "carbon neutrality, peak carbon emission" and "double restrictions" and other aspects, to enhance diversity and effectiveness of the communication content. In 2022, the Company handled a total of 34 times of telephone communication with investors, answered 60 questions asked by investors through the interactive platform, and responded to six investor inquiries via IR email.



(II) Law Obedience and Compliance

Chongqing Iron & Steel adheres to law-based corporate governance and operational compliance. By formulating administrative measures, carrying out risk assessment and organizing compliance culture training, we pay close attention to internal and external compliance-related risks in the development of the Company, strengthen the promoting of risk prevention and control, and continue to improve the level of compliance-related risk control.

1. Management System

The Company has compliance management systems in place, including the Compliance Management Measures, the Implementation Measures for Investigation of Responsibility for Non-compliance Investment, the Legal Affairs Management Measures and the Contract Management Measures, to prevent and resolve compliance-related risks. The General Counsel of the Company acts as the person in charge of compliance management of the Company, and is responsible for the organisational leadership and co-ordination of compliance management of the Company, researching and deciding on major compliance-related matters, guiding, supervising and evaluating compliance management, reviewing and issuing compliance management plans and reports, and reporting to the President and the Chairman of the Board of Directors on major compliance management matters, etc.

2. *Operation Mechanism*

The Company adopts the policy of beforehand prevention, in-process control and post supervision, and strengthens the guarantee by compliance management over its operation by reviewing major matters/decisions, major contracts and management documents beforehand, issuing legal opinions, issuing one form – for – one case reminder and compliance evaluation, etc. In 2022, 79 important management documents, 44 major decision-making matters and other major matters relating to production and operation and 1,270 important contracts were reviewed, with a review rate of 100%, 11 legal opinions were issued and all review opinions were implemented; the Company was not subject to any administrative penalties during the reporting period.

3. *Compliance Culture*

28 compliance-related trainings and compliance culture-related education were conducted (including participated in), mainly on corporate governance, compliance system construction, legal risk management, contract and bidding and other compliance management, and special trainings on compliance, internal control, self-inspection and self-correction were conducted.



In 2022, the Administration Department of the Company actively practiced the concept of “Sincerely Serving”, visited various units and provided trainings for them on contract management, and explained on the problems encountered in the process of contract handling, which not only deepened the business personnel’s understanding of standards for the processes of contract processing, but also clarified on the direction of optimizing the Company’s contract management and promoted the enhancement of the Company’s ability in prevention and control of contract-related legal risks.



In order to foster a culture of compliance, the personnel in charge of legal affairs of the Company has created the “Mr. Wan Explains for Laws” brand and carried out law popularization by holding lectures and publicity at official accounts, which has deepened employees’ knowledge and understanding of laws and regulations. The Company will continue to enhance the operation of the “Mr. Wan Explains for Laws” brand and actively carry out various forms of legal exchange and learning activities to create an atmosphere of everyone “complying with laws, studying laws, abiding by laws and using laws”.

(III) Probity Construction

1. *Implementing the Integrity Culture*

The Company strictly abides by relevant laws and regulations, adheres to putting prevention first while integrating punishment with prevention. It has formulated and implemented the Provisions of the Responsibility System for Improving the Party’s Work Style, implemented the Implementation Opinions on Strengthening the Party Style and Clean Government Education for Leading Personnel, the Ten Prohibitions Concerning Clean Practice, the Management Measures for Counter Signing of Economic Contracts and Integrity Agreements for Outward Business, the Management Measures for Rewards and Punishments for Whistle-blowing of Violation of Regulations and Disciplines and other internal rules and regulations, advanced various buildings for integrity, to enhance the leaders and employees’ awareness of integrity, discipline and rules, and advance the high-quality development of the construction of the Party conduct and of an honest and clean government as well as anti-corruption work of the Company.

2. Deepening Integrity Education

On New Year's Day, Spring Festival, Mid-Autumn Festival, National Day and other major festivals, the Discipline Inspection Committee and grassroots units of the Company carried out propaganda and study and supervision and inspection of the requirements on the Company and higher levels' curbing unhealthy practices and strictly enforcing disciplines, carried out caution education on probity, and prepared and issued four issues of Exchanges on Discipline Inspection and Supervision Work materials. Caution education was organised for a case investigated by the Discipline Inspection Commission in which a unit abused of its power for personal gain, giving full play to the cautioning and deterring effect of typical cases and deepening the work of promoting governance and rectification with cases. At the same time, materials on probity education and typical cases were carefully planned and prepared, and touring propaganda on case cautioning education was conducted in key units such as the Raw Material Procurement Centre, the Marketing Centre and the Manufacturing Management Department, to continue to strengthen the awareness of "not wanting to be corrupted" in window units.

Case: Opening a New Future for our Wharves and Creating a Community with Probity Together

Since July 2021, the Logistics and Transportation Department of the Company, together with the Raw Material Procurement Center, has established a joint probity risk monitoring mechanism with 14 ship carriers, and the "Ship Open Day", which has formed a brand effect, has also become a "special signboard" for the Company to innovate harbor boats communication and deepen the integration between the Company and carriers.



3. *Strengthening Prevention and Control of Integrity-related Risks*

The Company arranged for various units to sign the Chongqing Iron & Steel Integrity Risk Prevention and Control Form, to promote employees to understand the integrity risk points of their respective positions and prevention and control measures, and to establish their respective awareness of integrity. In 2022, a total of 571 integrity commitment letters were signed by employees at sensitive positions in various units of the Company. The Company carried out “six one” special activities for “establishing new healthy practices, shaping the image” in the field of external windows, promoting the window posts to improve the service awareness, work quality and efficiency of employees, and to improve the systems and flow and risk prevention and control measures of window posts.



The Company held a work conference on improving the Party's work style and combating corruption, and the Company's leaders took the lead to make a commitment to honesty

4. *Resolutely Cracking Down on Irregularities*

We adhered to the tone of strictness, strictly carried out supervision and discipline accountability, strengthened the investigation and handling of problem clues and cases, continued to increase the efforts to notify and expose those who violated regulation and discipline, strengthen the deterrence against corruption, tighten the cage against corruption, enhance the consciousness against corruption, and constantly release a strong signal that discipline violation must be investigated and discipline enforcement must be strict, striving to create a clean and upright practice environment.

Case: Investigating and Handling of Window Staff's “Micro-corruption”

When we purchased steel scrap and the vehicles were unloading steel scrap, the employees of the steel scrap team may take advantage of their power and received benefits from the drivers to facilitate their unloading by queue jumping. The Company imposed administrative sanctions on two offenders and transferred them away from their original posts. A number of managers were held accountable and given organisational treatment and economic assessment. Through investigation, punishment and warning, the employees were motivated to establish a good image in the window areas.

(IV) ESG Management

ESG Statement of the Board of Directors

Chongqing Iron & Steel recognizes the importance of ESG issues to the Company's risk management and sustainable development. The Board of Directors is the highest leadership body for the Company's ESG efforts, and the Strategic Development Committee of the Board of Directors is responsible for the ESG work of the Company and makes relevant recommendations to the Board of Directors. The Board is committed to ensuring that the Company's ESG efforts comply with legal, regulatory and standard requirements, controlling ESG-related risks, and ensuring that the Company's ESG objectives and implementation processes are effective.

The Board of Directors continues to identify and assess important ESG topics, employs various channels to communicate with key stakeholders, and determines the priority of ESG topics of the Company based on the external economic and social environment and the Company's strategy, to provide references for the Company's ESG information disclosure.

The Board of Directors attaches great importance to achieving important ESG goals such as workplace safety, energy and environmental protection, and has set a number of indicators to review the progress of relevant goals. In 2022, the Company kept its safety work, safety management ratings rose 81% year-on-year, and the completion of energy and environmental protection indicators was in line with annual targets, laying the foundation for the construction of a high-quality, green and intelligent steel enterprise.

This report discloses in details the progress and effectiveness of the ESG work of Chongqing Iron & Steel for 2022. The Board of Directors and all Directors of Chongqing Iron & Steel warrant that there are not any false statements, misleading statements contained in, or material omissions from this report and accept individual and joint liabilities for the truthfulness, accuracy and completeness of its contents.

1. ESG Governance Structure

The Company keeps to the green development philosophy as "Chongqing Iron & Steel Immersed in Charming Landscape", and incorporates social responsibility into corporate development strategies and routine business activities. The Company drew on advanced ESG management experience at home and abroad to form an ESG management structure with vertical implementation and horizontal coverage and effectively improve the ESG management level. All departments and organizations of the Company act in concert, maintain close communication with stakeholders, and work to create an influential and sustainable responsible brand in line with the Company's sustainable development strategy.

2022 Environmental, Social and Governance Report (Continued)

Board of Directors	The top leadership organization for the Company's ESG work
The Strategy Committee of the Board of Directors	<p>Responsible for the Company's ESG work and making suggestions to the Board, including:</p> <ol style="list-style-type: none">1. Reviewing the Company's ESG policies and strategies to ensure compliance with relevant laws, regulations and standards2. Assessing and reviewing the Company's ESG risks and opportunities, and make suggestions to the Board3. Reviewing the Company's ESG management and internal control systems and make suggestions to the Board on their adequacy and effectiveness4. Evaluating, reviewing and supervising the Company's ESG goals and implementation and reviewing the Company's disclosed ESG reports5. Guiding the formulation of ESG management vision, objectives and strategies
ESG Working Group	<p>Responsible for providing professional support to the Strategic Development Committee of the Board, including:</p> <ol style="list-style-type: none">1. Developing specific ESG policies and action plans in line with the Company's strategy and development goals2. Managing ESG related risks in the daily operation of the Company3. Communicating with all departments and subsidiaries of the Company to coordinate and promote the implementation of ESG matters4. Collecting, collating and compiling the Company's public disclosures on ESG matters and performance

2. *ESG Capacity Building*

➤ Responsibility Indicator System

The Company set up a complete indicator system composed of five dimensions of report preface, governance responsibility, environment-related risks management, social risks management and value creation, to standardize the Company's ESG management and ESG report compilation.

➤ Building of Capacity for Responsibility

The Company takes the initiative to strengthen its own capacity building, enhance the sense of social responsibility, and cultivate a responsible corporate culture. In 2022, the Company actively participated in trainings on ESG management organised by China Baowu and social institutions and organisations, to enhance the capabilities to perform duties. In November 2022, the Company was selected to be listed among the "ESG Risk Management Pioneer 50 Index for Central Enterprises".

2022 Environmental, Social and Governance Report (Continued)

3. Communication with Stakeholders

The Company values its communication with the stakeholders, and has established an efficient stakeholder communication mechanism to actively identify and respond to the expectations of various stakeholders and enhance their understanding of and trust in the Company.

Demands from Stakeholders and Responses from Chongqing Iron & Steel

Stakeholders	Expectations and Demands	Communication and Responses
Government	Observe discipline and law	Integrity and compliance management
	Pay taxes according to law	Pay taxes proactively
	Support local development	Provide jobs
Shareholders and Investors	Respond to major policies	Improve business performance
	Protect shareholders' rights and interests	Enhance information disclosure
	Improve corporate governance	Raise internal control level
Employees	Strengthen risk control	Improve the level of salary and welfare
	Protect the rights and interests of employees	Pay attention to the physical and mental health of employees
	Help employees grow	Enhance the training and promotion mechanism
	Balance employees' work and life	Organize cultural and sports activities
Customers	Health and safety	Strengthen employee communication
	Product and service innovation	Attach importance to scientific and technological innovation and management innovation
	Protect the rights and interests of customers	Strengthen product quality and service management
	Improve customer satisfaction	Adhere to integrity management

2022 Environmental, Social and Governance Report (Continued)

Stakeholders	Expectations and Demands	Communication and Responses
Partners	Drive industry development	Build jointly the ecosystem
	Partners' win-win results	Adhere to business ethics
	Implement responsible procurement	Build a responsible supply chain
Community	Actively integrate into the community	Carry out public welfare projects
	Carrying out volunteer activities	Build a volunteer service team
	Help people in need	Contribute to rural revitalisation
Environment	Conserve energy and reduce emissions	Advance green manufacturing
	Protect the ecology	Develop new environmental-friendly products
	Make rational use of resources	Promote resource conservation
	Respond to climate change	
	Save water resources	

➤ Identification of Major Issues

In order to accurately present the ESG performance and work progress of Chongqing Iron & Steel, the Company has established a standard process of issue identification and evaluation, built a substantive issue matrix, identified important ESG issues and disclosed them in the Report.

➤ Substantive Issue Identification and Evaluation Process

- Issue Identification

Through the analysis of macro policies and industry policies, authoritative ESG standard research at home and abroad, benchmarking of excellent ESG reports in the industry, sorting out the key points of corporate strategy, etc., identify and establish the corporate ESG issue database.

- Issue Evaluation

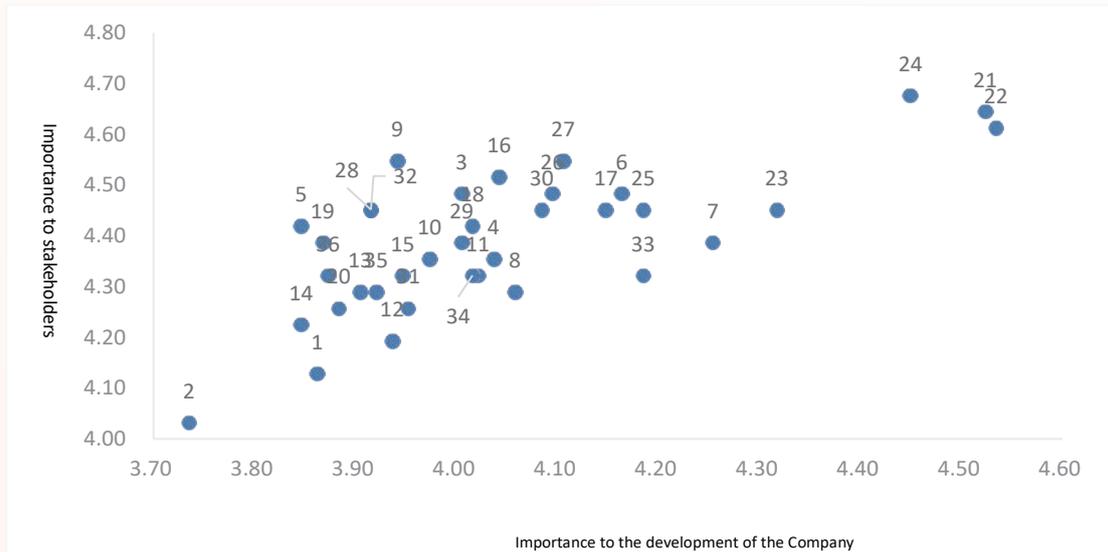
The ESG Working Group and external experts jointly select the substantive issues that need to be highlighted and disclosed, and establish a matrix of substantive issues from two dimensions of "importance to stakeholders" and "importance to the development of the Company".

2022 Environmental, Social and Governance Report (Continued)

- Review and Confirmation

The Company's Board of Directors and the Strategic Development Committee of the Board of Directors conduct the final review.

Substantive Issue Matrix



2022 Environmental, Social and Governance Report (Continued)

No.	Issue	Internal stakeholder	External stakeholder
1	Governance structure	3.86	4.13
2	ESG management	3.74	4.03
3	Law-abiding and compliant operation	4.01	4.48
4	Risk management and internal control	4.04	4.35
5	Anti-unfair competition	3.85	4.42
6	Anti-corruption and bribery	4.16	4.48
7	Information transparency	4.25	4.39
8	Communication among stakeholders	4.06	4.29
9	Environmental management system and objective	3.94	4.55
10	Early warning and emergency response mechanism for environmental protection	3.97	4.35
11	Environmental impact assessment	4.02	4.32
12	Training and propaganda and education on environmental protection	3.94	4.19
13	Environmental protection technology research and development or application	3.90	4.29
14	Energy management system and objective	3.85	4.23
15	Energy consumption	3.95	4.32
16	Use of green, clean/renewable energy	4.04	4.52
17	Green factory and green office	4.15	4.45
18	Waste management	4.02	4.42
19	Response to climate change	3.87	4.39
20	Responding to peak carbon emission and carbon neutrality	3.88	4.26
21	Protection of employee rights and interests	4.52	4.65
22	Occupational health and safety	4.53	4.61
23	Training and career development	4.32	4.45
24	Caring for employees	4.45	4.68
25	Product quality management	4.19	4.45
26	Technological innovation	4.10	4.48
27	Intelligent manufacturing	4.11	4.55
28	Customer objection handling	3.92	4.45
29	Customer information and privacy protection	4.01	4.39
30	Customer satisfaction	4.08	4.45
31	Supply chain management	3.95	4.26
32	Responding to national and regional development requirements	3.92	4.45
33	Industry development	4.19	4.32
34	Strategic cooperation	4.02	4.32
35	Community communication and integration	3.92	4.29
36	Public charity and multi-village revitalisation	3.87	4.32

INNOVATION · FORGING FOUNDATION FOR DEVELOPMENT

Science and technology are the primary productive force. To continuously enhance the core competitiveness of the Company, Chongqing Iron & Steel has improved its innovation mechanism, raised its awareness of intellectual property rights, given play to incentive-orientated, output outcome of technological innovation and formed a new pattern of innovation.

(I) Innovation-driven Development

1. Innovation Mechanism

It has established technology innovation management systems including the Management Measures for Technology Innovation, set up an innovation promotion group, and made full use of the innovation studio and “Contribute a Plan” platforms; the construction of an integrated technology management system was completed at the beginning of the year, to achieve efficient online operation and coordinate planning and resource sharing.

2. Innovative Actions

➤ Research projects

In 2022, 68 research projects were approved and initiated in 2022, representing an increase of 59 projects as compared with 2021, including 14 research outsourcing projects and 54 independent research and development projects. Now 17 projects have been in the completion stage, generating economic benefits of RMB68,182,800 and outputting 57 intellectual property rights. Among them, there are 12 technical secrets, 14 scientific and technical papers, 17 invention patents, 12 utility model patents and 2 advanced operation methods.

➤ New product development

From January to December 2022, a total of 178,000 tons of new grades were developed on a trial basis, mainly including: 8 major categories including medium plate weather-proof structural steel plate, building structural steel plate, steel plate for oil and gas transmission pipes, structural steel plate for bridges, alloy structural steel plate, etc.; 3 major categories including hot rolling steel strip for electrical engineering use, low alloy steel plate and strip, steel strip for guardrail, etc.

We successfully piloted the production of CG1.2311 medium plate alloyed die steel and L415M steel plate for pipe line, expanding the varieties of special steel for medium and thick plate. By optimising the production process, the target ingredient requirement of 0.003% ultra-low carbon and 0.008% low sulphur of steel substrate CGR800 for hot rolling electrical engineering use was successfully achieved. Centering on the regional market demand around the place of business, we successfully piloted the production of high dimensional accuracy hot rolling guardrail plate HL-Q235B.

Case: Special High Strength Steel for Pylons for Chongqing Iron & Steel Helps “West-to-East Power Transmission”

Under the national development goal of “West-to-East Power Transmission and North-to-South Power Transmission”, Chongqing Iron & Steel made reasonable study and judgements and learned through visits that the market for low temperature-resistant and corrosion-resistant low alloy high strength steel which 750kV, 1000kV and other ultra-high voltage power transmission system pylons use is promising. The hot rolling production, sales and research team, centering on the products’ good cold forming performance and welding performance, utilizes the information advantage of the up-front project intervention, combined with users’ production equipment parameters, benchmarked against the production process of domestic advanced steel mills, and repeatedly organized the user’s production technology department for on-site and video communication, successfully developed a special high-strength steel for pylons, and signed a technical agreement to meet the users’ use needs.



Special High Strength Steel for Pylons

3. Intellectual Property Rights

Possessing a certain number of intellectual property rights reflects the soft power of enterprises. In recent years, Chongqing Iron & Steel’s scientific and technological innovation activities have shown trends of year-on-year growth. In particular, in 2022, 270 invention patents were reported, representing an increase of 160% over 2021, with science and technology innovation advancing by rushes, adding strong momentum to the Company’s high-quality development.

2022 Environmental, Social and Governance Report (Continued)

In 2022, 222 patents were licensed, including 17 invention patents and 205 utility models. The number of patent applications increased by 125 over 2021, the number of invention patents licensed increased by 14 over 2021 and the number of utility models licensed increased by 111 over 2021. The continued increase in the number of patents licensed was due to the successive completion of application procedures for patents application in earlier stage.

4. *Building a Strategic Cooperation Platform*

Leveraging the platform of Baowu Group and the industry-university-institution cooperation platform, we make use of resources from universities and research institutes to carry out common technology research and cooperation in specialised fields, carry out forward-looking and breakthrough innovation projects and accelerate the realisation of technological breakthroughs.

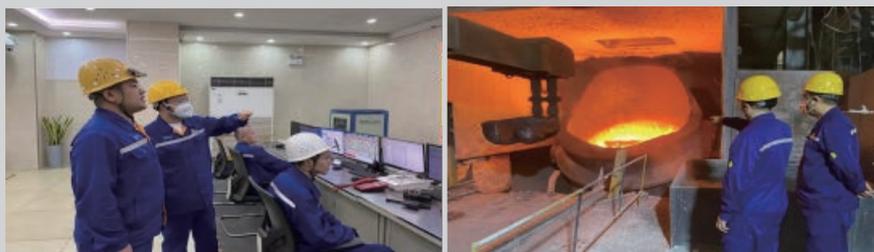
➤ **Making full use of the resources of the Baowu Group platform**

In 2022, Chongqing Iron & Steel launched its project-based support work, with the support by experts from Baosteel, SGIS and Echeng Steel sparing no effort, achieved stage outcome in the areas of “three reductions and two increases”, the construction of standard production lines and standard construction sites, the improvement of site management and the enhancement of comprehensive management, providing support for the overall improvement of the Company’s system capabilities and manufacturing capacity, further building the foundation for developing itself into a high-quality, green and intelligent manufacturing steel enterprise with a capacity of over 10 million tons, and ensuring that the supporting projects are implemented and put into place.

Leveraging the support team of Zhongnan Iron and Steel, we promoted the long products production line to reach designed production and efficiency in a rapid manner. In September 2022, a 7-member special support team, mainly from Magang Group and SGIS, was stationed at the Company’s long products production line to provide all-round support and guidance in terms of production system construction, equipment precision status and staff skill enhancement, etc. The core indicators of the long products production line, such as operating rate, hourly output and yielding rate, were rapidly improved. On 22 September, the daily output of ϕ 20 specification hot delivery and direct rolling of double high rods production line broke a historical record of 3,940 tons, and on 19 September, the daily output of 3,032 tons of ϕ 28 specification bars production line set a new record.

Case: Chongqing Iron & Steel's Non-oriented Silicon Steel Process Optimization Innovation

In 2022, demand space for domestic non-oriented silicon steel products market was vast. In order to meet the needs of customers and continuously expand the market share of Chongqing Iron & Steel's products, the Company's production, sales and research team worked with key users, to promote the development of non-oriented silicon steel in line with the trends of upgrading of energy efficiency and demanding for high-end steel in the industry. The production, sales and research team has made full use of the Baowu Innovation Collaboration Platform to carry out systematic benchmarking, and with repeated testing and verification, finally developed a new-process non-oriented silicon steel products to meet the requirements of use, laying a solid foundation for improving market profitability and core competitiveness of products.



Carrying Out Innovation in the Optimisation of Non-oriented Silicon Steel

2022 Environmental, Social and Governance Report (Continued)

- Collaborative projects with universities and research units

In 2022, there were 2 collaborative projects with Chongqing University, 1 with University of Science and Technology Beijing, 1 with Northeastern University and 11 with other research units.

Case: Project for Technology Development to Improve Energy Efficiency of Residual Heat and Residual Gas Power Generation with Chongqing University

The research mainly focused on residual heat and residual energy of the iron and steel industry. By applying thermodynamics, thermoeconomics and ECSC theory, it establishes a whole-process-based residual energy evaluation and diagnosis method, clarifies key processes with recovery potential, and also proposes a solution for residual heat and residual energy recovery and utilisation technologies and energy efficiency improvement in the iron and steel industry. The research is conducive to improving resource utilisation efficiency and contributing to the Company's green and low-carbon development.



5. *Management Innovation*

We revised and improved the Innovation Studio Management Measures to give full play to the role of the innovation studios in tackling of problems on on-site improvement projects, studying technical problems, coaching for cultivation of technical skills and technology application exchange. In 2022, 14 innovation studios completed 81 scientific and technical papers, 130 invention patents, 92 utility models, 66 technical secrets, 33 staff innovative products and 10 advanced operation methods.

Two projects, namely, the High-efficient and Low-cost Application Technology for Rollers in Hot Rolling Production Line and the Application of Flue Gas Recirculation Process in Sintering Waste Heat Power Generation System, were awarded the second prize of the second "China Baowu Outstanding Job Innovation Achievement Award", and referral was provided to five outstanding job innovation achievements of employees for being qualified to participate in the 26th National Invention Exhibition.

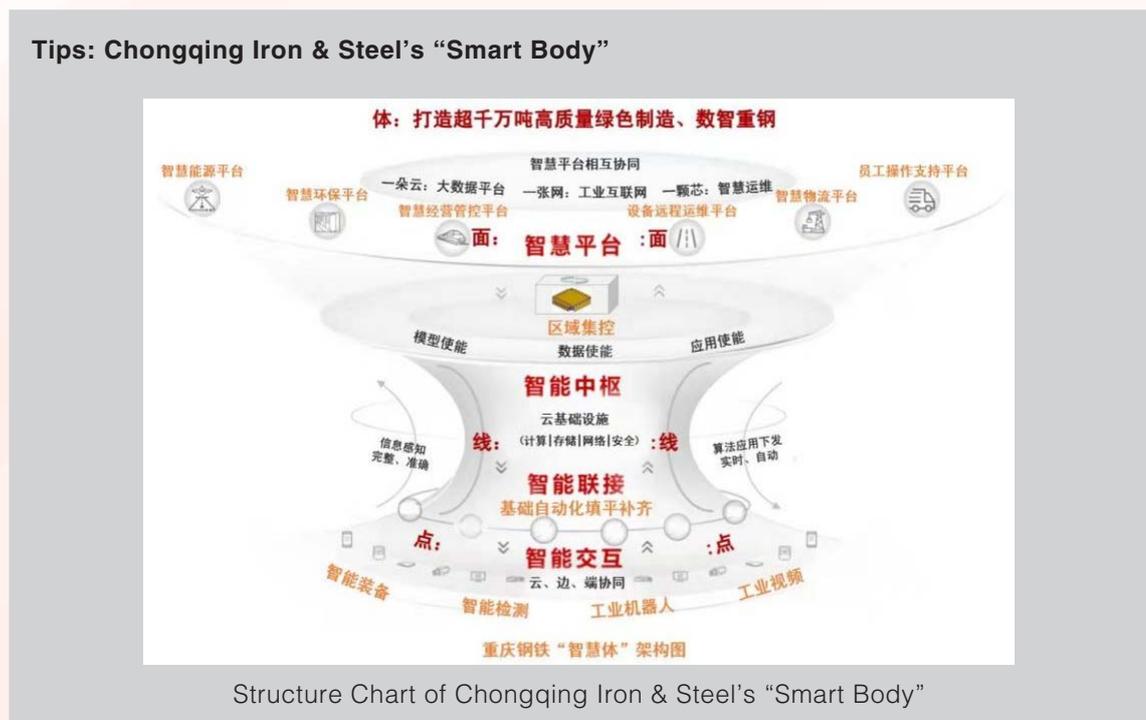
2022 Environmental, Social and Governance Report (Continued)

In 2022, various departments of the Company declared 14 management innovative products, finally winning 1 first prize, 2 second prizes and 3 third prizes. The Management Innovation Practice in Transformation and Upgrading of the Company after Integration into Baowu and the Application of Strategic Cost Management of Refractory Materials Based on SHANK Model were declared on behalf of China Baowu to compete for the 21st (2022) Metallurgical Enterprise Management Modernization Innovative Products. As strictly evaluated by the Metallurgical Enterprise Management Modernization Innovative Products Approving Committee and reviewed by the China Iron and Steel Association, the two outcomes were finally awarded the third prize of the 21st (2022) Metallurgical Enterprise Management Modernization Innovative Outcomes.

(II) Intelligent Manufacturing

1. Intelligent Manufacturing Management

In 2022, the Company deepened management changes with the aim that “All operating rooms are uniformly centralized, all operation and maintenance of equipment are uniformly managed remotely, all operating posts uniformly adopt robots and all services are uniformly online”, promoted smart manufacturing in accordance with Chongqing Iron & Steel’s four-dimensional “Smart Body” structure of “point-line-plane-body” with high standards and strict requirements, and advanced informationization empowering management innovation. In 2022, we maintained the management system certification of the integration of informatization and industrialization.



2. *Intelligent Manufacturing Projects*

In line with the principle of “overall planning, step-by-step implementation and priority to solutions for urgent needs”, the Company promotes smart manufacturing projects in an orderly manner and has started the “10,000 Baoluo” industrial robot application multiplication plan, adding 28 new units in 2022, 56 units in 2023, 56 new units in 2024, 37 new units in 2025 and 126 new units in 2026, to ensure the continuous improvement in “intelligent indicators”.

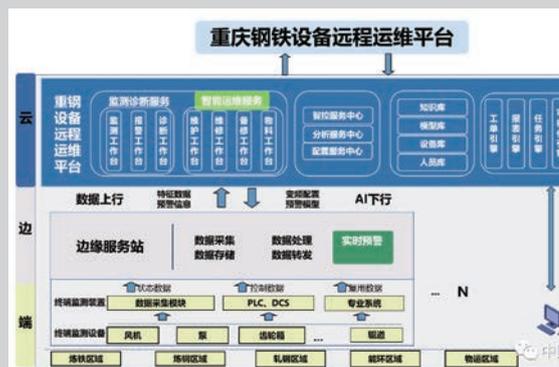


Conference of Intelligent Manufacturing and Baoluo Inauguration on 7 July 2022

During the reporting period, the data-onboarding-platform indicator increased to 88%, representing an increase of 3.6%, the equipment-onboarding-platform indicator increased to 60.5%, representing an increase of 36.1%, the “Four Unifications” indicator increased to 62.37%, representing an increase of 11.51%, and in terms of increase in the digitalization and intelligentization indicator, Zhongnan Iron and Steel ranked first, outperforming the target for the year.

Case: Remote Operation and Maintenance Makes “Remote Diagnosis” a Reality

On 29 August 2022, Chongqing Iron & Steel completed the construction of the first phase of its remote equipment operation and maintenance platform, with 8 model servers and 5 data collection servers installed and the construction of 13 data collection stations on site completed, connecting 11,182 sets of equipment to the industrial Internet platform. It has realized the functions including remote monitoring of equipment status, remote diagnosis of equipment fault, alarming of equipment events and analysis of historical data, to achieve remote cloud monitoring of equipment, cloud operation and maintenance, and cloud management of the whole life cycle of equipment, so that “Remote Diagnosis” becomes a reality.



COLLABORATION · GATHERING STRENGTH FROM VARIOUS PARTIES

Collaboration is an intrinsic requirement for enterprise development and a cornerstone for a bigger and stronger enterprise. Chongqing Iron & Steel pursues win-win cooperation with its partners, customers and employees to help the industry develop. By managing suppliers responsibly, establishing a responsible supply chain, focusing on customer needs, serving customers attentively, protecting the legal rights and interests of employees and helping them with their career growth, Chongqing Iron & Steel contributes to high-quality development and creates value for the development of the industry.

(I) Partner Responsibility

1. Supplier Management

As a key component of the value chain, our suppliers are also our important partners. Chongqing Iron & Steel continues to improve the management system of supplier admittance and evaluation, consolidate cooperation with strategic suppliers, support and cultivate suppliers with strength and potential to develop into strategic suppliers, and optimise the supplier team.

➤ For Suppliers with Stable Relations Established

We held supplier seminars, forums, professional training and other activities from time to time to publicize the Company's purchasing policy, supplier management philosophy, the Company's operation and latest developments, and to create a "clean, open and win-win" system of purchasing-supply communication and supply chain, so as to promote the mutual development of suppliers and the Company.

- (1) Promoting the Company's various management systems to suppliers, and promoting suppliers' initiative establishment of quantity, quality assurance systems, occupational health systems and environmental protection systems to enhance the assurance capability of the integrated system.
- (2) Effectively connecting suppliers through the use of e-commerce to achieve information sharing and supplier collaboration, and training suppliers on online goods delivery processes in 2022, covering approximately 96 people's attendance.
- (3) Starting with the analysis of the causes for objections to physical quality, working with suppliers to identify weak links in the production process and helping them improve their quality systems in a targeted manner, so that they have the ability to make continuous improvements.
- (4) Strengthening management and research on the amount of storage and extraction of raw materials supplied by suppliers, the future planning situation as well as the relevant transportation and port situation to improve the management level.

➤ For new suppliers

Under the premise of maintaining normal supply, we continue to open up new procurement channels in line with the development trend of domestic and international products, information on the development of new processes and products, and information on the needs of users. We fully evaluate suppliers' quality assurance capability, delivery capability, inspection methods, workforce quality, and meanwhile, we publicize to suppliers the environmental protection, occupational health and other system requirements. In terms of delivery capabilities of suppliers, in addition to the evaluation of the production capability of new suppliers, we also instruct the suppliers to establish emergency delivery plans in case of emergency and unforeseen circumstances to ensure that the suppliers have 100% delivery capability to ensure the smooth running of the Company's production.

2. *Fair Competition*

➤ Sunshine Purchase

To create a fairer and more just purchasing competition environment, the Company advances sunshine transparent purchasing in a comprehensive and in-depth way, reporting the purchasing data to Zhong-Zi Sunshine Purchasing Platform on a monthly basis by the purchasing amount, purchasing mode, domestic and overseas purchasing and other principles. At the same time, through the Obei purchasing platform, the Company can publicize the purchasing resource information in advance, guarantee the supplier qualification consistency, and record and track the purchasing information in a data-based way to ensure sunny, transparent and standardized links; meanwhile, the Company has introduced information-based methods to supervise the exercise of power and effectively avoid moral hazards in transactions. We request the suppliers to enter into integrity agreements and urge them to follow legal and compliance requirements through continuous improvement of sanctions for irregularities and law-based bidding and purchasing.

➤ Online Purchasing

Online procurement refers to that under the unified organization and management of the Baowu Group, various subsidiaries and continuing branches realize the whole transaction process from the publication of procurement requirements to the notification of procurement results through the e-commerce platform (the Group's internal unified procurement shared service platform). The requirement of "Procuring online as much as possible and as quickly as possible" in the procurement process refers to that all procurement activities, except for the "list of categories not suitable for online procurement", are carried out on the Group's unified procurement shared service platform – Ouyeel Industrial Products Platform and the Unified Bidding Platform. In 2022, we continued to promote the online procurement of office supplies, maintenance and repair materials and spare parts, as well as the bidding and procurement of engineering, equipment and services, and the online procurement rate for raw materials was 100%.

3. *Responsible Supply Chain*

➤ Exercising Strict Control of Entry

In accordance with the needs of the user units, Chongqing Iron & Steel selects suppliers in accordance with the principles that "the procurement needs cannot be met by existing qualified suppliers; new suppliers have competitive advantages over existing suppliers of the same type; moderate competition among suppliers can be stimulated and the superior is selected and the inferior is eliminated; the management is standard, quality high, price reasonable, and the production needs of the Company can be met".

The Company selects new suppliers based on resources, quality, cost, management and sustainability, with preference given to large and medium-sized enterprises over other enterprises, and preference given to manufacturing enterprises over trading enterprises. New suppliers shall meet the following basic conditions: complying with national, local and industry laws and regulations; possessing the qualification for lawful production and operation; meeting the Company's requirements for supplier quality, safety and environmental protection system management; ensuring the product quality meets the Company's use requirements and can continue to improve; meeting the Company's requirement of gradual reduction in the comprehensive cost, with strong competitiveness in comprehensive cost performance on the market; suppliers of products with special qualification requirements shall hold the production license or business license stipulated by the state or industry.

➤ Strengthening Supplier Evaluation

On the basis of strictly controlling supplier entry, the Company continues to carry out supplier evaluation to guide suppliers to strengthen social responsibility, pay attention to environmental protection, and use more environmentally friendly products and services.

- Dynamic Evaluation

The Company conducts dynamic evaluation on suppliers according to the Management Rules of Dynamic Rating of Raw Material Suppliers, rewards or penalizes suppliers based on the comprehensive evaluation results, which serve as the basis for supplier cultivation and elimination.

- Annual Evaluation

The dimensions of raw material supplier annual evaluation include goods delivery, price/cost, quality, service, technology, assets, communication and cooperation. The production suppliers who have passed ISO9001 certification (except those who provide logistics services) can be assessed as Grade A, suppliers who have passed ISO14001 certification can have two points added to their evaluation results; suppliers who have passed ISO45001 certification can have three points added to their evaluation results; the evaluation results are divided into five grades: A, B, C, D and E. The evaluation results directly affect the change of the supplier level. Suppliers rated at Grade A have the opportunity to be promoted to a higher level in the supplier hierarchy, while suppliers rated at Grade D and E will be removed from the list of qualified suppliers.

Evaluation of suppliers in 2022: a total of 267 suppliers participated in the evaluation, of which 215 were qualified suppliers; 47 existing temporary suppliers could not be changed to be official suppliers due to failure of examination under the COVID-19 pandemic; 5 suppliers were eliminated; the remaining suppliers were evaluated in accordance with the various professional management system.

(II) Quality Services

1. *Enhancing Quality Responsibility*

➤ Improving Quality Management Systems

Chongqing Iron & Steel has compiled the Handbook for Quality, Environment, Occupational Health and Safety, and Energy Management, Management Measures for Technical Standards, Management Measures for Product Quality, Management Measures for Nonconforming Products and a series of product quality management documents. Through the management systems of the Company, namely external audit, internal audit, special audit, process audit, quality spot checks, process inspection and other series of activities, the Company acts in a problem-oriented way, identifies, rectifies and verify problems to ensure the effective operation of the quality management system.

We improve product quality and customer satisfaction through process review, process optimization, process improvement, product quality design and customer visits, in a user-centered manner. We expand the scope of our products and services through production, sales and research, new product development, etc. In September to October 2022, we carried out the “Quality Month” activities with the theme of “Strengthening Capabilities in Standardized Operation and Promoting Enhancement in Quality Management” to promote quality awareness among all staff. In 2022, the Company successfully passed the external supervision and audit of quality, environment, occupational health and safety, energy and informatization and industrialization integration management system.

➤ Product Quality Certification

We completed the declaration of physical quality of metallurgical products including Q345qD, a wide and heavy structural steel plate for bridges, and Q355B, a low alloy high strength structural steel strip, for Golden Cup Quality Product. We passed the on-site re-evaluation for certification of CCS and LR after classification societies certificates' expiry as well as the annual audit of various classification societies, with a product certification acquisition rate of 100% and 135,600 tons of ship plate product obtained certificates in 2022.

➤ Product Quality Appraisal

In 2022, Chongqing Iron & Steel Testing Centre was accredited by CNAS (China National Accreditation Service for Conformity Assessment) for 14 consecutive years and passed 7 proficiency tests, including chemical composition analysis in ferromanganese, determination of potassium and sodium content in iron ore (international comparison) and Brinell hardness test for metals (international comparison). The testing centre will establish its own management system in accordance with the requirements of the relevant system of the China National Accreditation Service for Conformity Assessment, adhering to the principles of fairness, impartiality, standardization and accuracy, focusing on the theme of “improving testing capability, enhancing innovative competitiveness, and building a highly skilled testing team”, and committing itself to the work style of “being rigorous, elaborate, lean, punctual and efficient”, implementing effective control over the management and testing process, and doing our best in test to ensure the suitability, adequacy and effectiveness of the system.

2. *Providing Attentive Services for Customers*

➤ Introduction to product/service quality management systems

The Company advocates the value marketing philosophy of win-win cooperation with customers, stresses customer value and provides comprehensive solutions centering on customer needs, to strive to maximize customer value. The Company manages the whole-process and whole-life-cycle customer service in a systematic and centralized manner, covering pre-sales, in-sales and after-sales services, has established the customer return visit system and developed a holistic customer concept; established a technical service management system oriented towards meeting customer demands and solving customer problems, with a focus on improving customer service level, improving customer perception and satisfaction. We continuously deepen the “user-centered” operation mechanism, and have set up a production, sales and research integrated promotion group for downstream user groups. Adhering to the development path of differentiated new products, we explore and innovate user needs in an in-depth manner and enhance the ability to plan and implement comprehensive solutions for users.

➤ User interview system and implementation thereof

In order to strengthen communication with customers, maintain customer relationships, standardize the process related to customer interview (visit) and prevent the risk of losing customers, the Company has formulated the Management Measures for Customer Interview (Visit) and promoted customer interview to be implemented through strategic cooperation, business negotiations and return visits. In addition to the marketing centre interview, the Company's leaders have taken the lead in participating in important customer interview and reached a consensus on working together, expanding cooperation, establishing a more stable strategic supply chain and realising mutual benefits.

Case: Being Customer-centric, and Working Together for Mutual Benefit and Win-win Results

In order to further understand customers' needs, expand the cooperation fields and deepen the cooperation relationship, from 27 to 29 June 2022, Xie Zhixiong, President and Deputy Secretary of the Party Committee, Meng Wenwang and Xie Chao, Senior Vice Presidents, and Guo Yi, Vice President of the Company visited Guangdong Huayi Industrial Steel Supply Chain Services Limited, Jiangsu New Era Shipbuilding Company Limited, Daming International Holdings Limited, Danyang Feida Heavy Industry Company Limited and Jiangyin Bogul Steel Trading Co., Ltd., exchanging views on further deepening cooperation and achieving joint high-quality development.



Case: Establishing a Closed-loop System and Actively Responding to Customer Complaints

The Company takes customers as the focus of attention, combines customer hierarchy management, establishes professional counterpart service teams for strategic customers and key customers, collects customer information, gives feedback on customer problems, maintains customer relationships and solves problems that arise during the use of customer products in a timely manner.

The customer complaints raised in the satisfaction survey will be reflected in the Chongqing Iron & Steel Company Limited Customer Satisfaction and Loyalty Measurement Analysis Report, the marketing centre has carried out classification of such complaints and specified leading rectification departments, each responsible department analyses the causes, develops corresponding rectification measures and requires the results to be fed back to the marketing centre within a specified period of time, the marketing centre conducts follow-up of rectification measures and the implementation thereof for each unit, and provide feedback and return visits to customers to conduct closed-loop management of customer opinions.

2022 Environmental, Social and Governance Report (Continued)

(III) Caring for Employees

1. Protecting Employee Rights and Interests

➤ Equal Employment

The Company strictly follows the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China and other laws and regulations. In accordance with the principle of equality and consensus, the Company signs labor contracts with employees to clarify the rights and obligations of both the employer and employees. We prohibit any form of discrimination, treat employees of different nationalities, races, genders, religious beliefs and cultural backgrounds in an equal manner, and protect and safeguard the legitimate rights and interests of every employee in accordance with the law.

There is no employment of child labor, forced labor, harassment and abuse in the Company. In the Recruitment Management Measures and the Labor Discipline Management Measures of the Company, it is clearly stipulated that the applicants must be at and above 18 years old and meet the national labor and employment policies. At the same time, the Company actively provides jobs for persons with disabilities, and helps employees with disabilities improve their professional quality to create value and contribute to the Company and society.

Employee Composition of Chongqing Iron & Steel in 2022

Category	Name	No. of People	Proportion
Gender Structure	Male employees	5,188	83.5%
	Female employees	1,027	16.5%
Mix of Educational Backgrounds	Doctoral degree	3	0.0%
	Master's degree	93	1.5%
	Bachelor's degree	1,130	18.2%
	Junior college degree	2,106	33.9%
Persons with Disabilities	Others	2,883	46.4%
		43	0.7%
Age	At and below 35	2,376	38.2%
	Age 36-45	1,453	23.4%
	Age 46-55	2,292	36.9%
	Age 55-60	94	1.5%

➤ Remuneration and Benefits

In strict accordance with the salary and welfare policies of the national and local governments, the Company has established a remuneration and incentive mechanism and management system that is fair internally, competitive externally and aligned with the market. The Company determines the salary according to the position sequence, level and nature and other factors, and adheres to the salary management mode that the salary varies with the position change.

The Company focuses on performance orientation, and in compensation distribution, it gives priority to units, departments and individuals with excellent performances that can create value and support the Company's future development. Meanwhile, the Company strictly implements the national policies and regulations, and guarantees the remuneration of employees according to law. Besides the basic salary and bonus, the Company also grants in time full benefits stipulated by the state, such as overtime pay, high-temperature allowances, allowances for those involved in wars (nuclear), allowances for Hui citizens, and allowances for the only child. The Company formulated Measures for the Administration of Employee Welfare Benefits to provide in-time birthday care, wedding greetings and funeral condolence, food allowances and other subsidies for employees.

➤ Democratic Management

Chongqing Iron & Steel Company Limited makes the channels of democratic management open, safeguards the staff's right to know, participate, express opinion and supervise the reform and production and operation of the Company, effectively mobilising the enthusiasm, initiative and creativity of the staff and promoting the harmonious and sustainable development of the Company through improving the quality of staff representative congress, sticking to collective and democratic consultation, implementing the system of joint staff representative congress and strengthening the democratic supervision over labour protection. In 2022, the 4th meeting of the first session of the employees' congress was held, where 247 employee (member) representatives gathered to hear and consider the annual administrative work report, the annual collective contract and other matters. Democratic evaluation and consideration was implemented as required and 102 employee representatives provided democratic evaluation and consideration of the relevant leaders' performance of duties.



➤ Caring for Female Employees

The Company provides special protection policies for pregnant and lactating women and other female employees. In the Labor Discipline Management Measures and the Employee Attendance Management Measures, it is clearly stipulated that female employees can enjoy maternity leave, birth control leave, nursing leave, rest and work leave and special menstrual leave in addition to marriage leave and paid annual leave, also a clause to protect the special rights and interests of female employees has been added in the collective contract, so as to effectively safeguard the legitimate rights and interests of female employees and care for female employees through practical actions.



2. *Guaranteeing a Smooth Development Channel*

The Company has developed a series of systems including Management Measures for Reserve Talent Cultivation and Management Measures for the Selection of (Competing for) Managerial Positions and Technical Positions at and below the Factory and Department Level to move faster to build a strong talent team. At the same time, the Company has established a “Three Channels” career development system comprising the management, technical business, operation and maintenance, implemented the three major talent programs of the managerial staff training program, the experts training program and the craftsmen training program, to broaden the path for employee career development and personal growth, and stimulate the development vitality of the organization.

The “Three Channels” Career Development System

- **The managerial sequence**

Operation Officer Management/Office Director Management → Factory Management → Company Management.

- **The technical business sequence**

Technical Associate (Host Commissioner) → Regional Engineer (Commissioner in charge) → Chief Engineer (Chief Manager) → Senior Director Engineer (Senior Manager) → Chief Engineer (Chief Manager).

- **The operation and maintenance sequence**

General Operator (spot inspection and maintenance) → Main Operator (spot inspection and maintenance) → Senior Operator (spot inspection and maintenance) → Chief Operator (spot inspection) → Technology Specialist.

Chongqing Iron & Steel always adheres to being employee development-oriented, selects people through racing, motivates them precisely, cares for them sincerely, and follows the principle that “Those who are capable should be promoted, those who are mediocre should be degraded, and those who are unaccomplished should be dismissed”. The racing in performance is conducted among secondary level leadership team and direct supervisors, the results of which is closely linked with the remuneration, promotion and adjustment to positions.



Raw Material Procurement Centre Publicizing Racing Mechanism

➤ Paying Attention to Employee Training

The Company has developed relevant systems including Management Measures for Employee Training, Management Measures for New College Student Internship Training, Management Measures for Employee Skill Training and Certification, etc., to establish a well-developed training system. At the same time, according to the strategic development plan and the annual work priorities, the Company conducts research on training demands, develops and issues the annual training plan and training incentive mechanism. In 2022, a total of 485 training projects were completed, with a completion rate of 98%.

Case 1: Organising Special Training Activities – Engineering Construction Safety Guardianship Management Training

In order to enhance the safety management of the Company's engineering construction projects and strengthen the on-site safety management and guardianship responsibilities for engineering construction projects, from April to May 2022, the Company organised 3 training sessions on engineering construction safety guardianship management.



Case 2: Induction Training for University Students

In order to help new college students adapt to the induction environment, understand the Company's development history, vision planning and various management systems, and enhance the sense of belonging and mission of the staff, in July 2022, the Company organized an induction training activity for new college students.



Case 3: Training on the Interpretation and Practice of the Labour Contract Law

In order to improve the professional competence of the Company's labour relations practitioners and enhance the Company's ability to prevent and control labour relations risks, in June 2022, the Company conducted special training on the interpretation and practice of the Labour Contract Law.



➤ Conducting Labour Competitions

Adhering to the principle of “pursuing excellence and challenging new heights”, the Company launched 12 special labour competitions in the areas of innovation and efficiency creation, infrastructure management and grassroots management, indicator improvement, safety management, green and low-carbon, and intelligent manufacturing, etc. Each unit launched 33 labour competitions independently taking into consideration the important and difficult points in production and operation. We actively organized to participate in China Baowu’s special labour competition in “Identifying Differences by Comprehensive Benchmarking, Creating World First Class”, and Blast Furnaces No. 1, No. 2 and No. 3 of the Iron-making Plant won the title of “Fastest Progressing Furnace”, “Low Carbon Championship Furnace” and “Fastest Progressing Furnace in Low-carbon Manner”, respectively; the Steel-making Plant won the title of “Third Runner-up Plant” in term of temperature of the incoming iron in the converters; and the 1,780mm production line of Rolling Mill won the title of “Third Runner-up Line” in terms of the hot loading rate.

The Company explored and improved the mode of job training and skills competition, strengthened the exchange in and promotion of experience, guided various units to carry out regular staff skills competition and training activities, and planned 25 skills competitions for “Collective and individual of special posts and individual of general post”, with 815 employees participating in the competitions, creating a strong atmosphere for job training, job learning and skills upgrading, to create a team of excellent quality and standard operation.

3. *Paying Attention to Employee Health*

With great importance attached to the physical and mental health of employees, the Company faithfully implements the Law on Prevention and Treatment of Occupational Diseases and other laws and regulations, has put in place management systems including the Occupational Health Management Measures and the Work Injury Management Measures, improves the health service system, and builds a solid defense line for employees’ occupational health.

- (1) Implementing the “three simultaneous” supervision and management evaluation of occupational health for 24 new, alteration and expansion projects to control occupational disease hazards at source;
- (2) Regular testing of occupational disease hazards in the operating environment, completing sampling of more than 600 hazards, and strengthening targeted control measures to prevent dust and toxicity and physical hazards to ensure legal compliance;
- (3) Carrying out occupational health inspections for more than 3,000 employees, with no suspected occupational diseases found;

- (4) Signing service agreements with Chongqing Changshou District People's Hospital and other hospitals and organising employees to attend health check-ups;
- (5) Paying attention to the psychological health of employees and strengthening humanistic care and psychological guidance;
- (6) Conducting COVID-19 pandemic prevention and control in a solid manner, to protect the health and life safety of employees.

Case: “Working Happily, Living a Life Happily” Mental Health Seminar

In order to further improve the health concept of the employees and enhance their awareness of health management, the Company's Employees Union invited psychologist Yang Ailing to provide psychological counselling in four aspects, including physical and mental health, workplace psychology, emotion management and behavioural psychology, etc.. More than 50 employees from various units of the Company attended the lecture.



2022 Environmental, Social and Governance Report (Continued)

4. *Building a Solid Safety Defense Line*

The Company continues to improve the management system for workplace safety, consolidate the basic management of grass-roots workplace, improve the on-site risk control capability, mobilises all parties to increase safety management efforts and provide a strong security environment for the Company's production and operation, reform and development.

The Workplace Safety Targets and Completion of Chongqing Iron & Steel in 2022

Item	Control Index	Target	Actual Result
Number of deaths due to workplace safety	Person	0	0
Injury frequency	Person injured/ Million working hours	0.55	0.21
Injury severity rate	Lost working days/Million working hours	200	20
Traffic fatal accidents that happened on the factory road for which we take up the main responsibility	No.	0	0
Fire accidents with direct economic losses ≥ CNY5,000,000	No.	0	0
Potential risks identified	No.	/	344,958
Safety investment	CNY0'000	3,390	6,373.99
Safety regulations violation assessment	CNY0'000	/	319.57
3D position substitution rate	%	30	33.33

➤ Promoting the Construction of Safety Management System

We have implemented the review and revision of the Company's safety systems and standards, appraised 81 safety management systems and standards, abolished 1, and revised and improved 15 ones, to ensure legal compliance, reasonableness and effectiveness.

- In accordance with the requirements of the Safety Education and Training Management Standards and the Safety Production Education and Training Management Measure, we have organised training for managers of occupational health management system on the Occupational Health and Safety Management System (GB/T45001–2020), the Management Measures for Hazard Identification, Risk Evaluation and Control, the Management Standards for Hazard Identification and Evaluation and other standard documents, and all participants have passed the appraisal.
- We have conducted comprehensive security evaluations among units in managers safety performance, safety training, hidden danger investigation management, Safety Day control promotion, accident management, fire safety, hazard source management, emergency management, safety performance and other 9 aspects.

➤ Consolidating Safety Grassroots Foundation Work

Through special rectification of production safety and promotion of grass-roots management, the safety foundation at the grass-roots level has been enhanced to ensure that the overall production safety of the company is under control.

- Promoting Basic Safety Management at the Grassroots Level

In 2022, the Company carried out hazard source identification for all staff, had identified 30,687 hazards; promoted hidden danger investigation and management, had investigated 344,958 hidden dangers, with a completion rate of 99.8% on schedule; strengthened high-risk control and organised safety inspection teams to carry out 24-hour random inspections of high-risk operations and daily notifications.

We strengthened education and training, carried out compliance training and capacity enhancement training such as special operation certification, special equipment operation certification and safety management personnel certification trainings; strengthened emergency management and implemented emergency drills, the Company carried out 800 emergency drills at all levels throughout the year with 9,649 participants.

2022 Environmental, Social and Governance Report (Continued)

- Carrying out Special Rectification of Production Safety

We carry out special inspection of high temperature molten metal safety and other “one special campaign for one month” safety activities, and through self-investigation and self-correction and leadership-leading inspection and verification, ensure that all the hidden dangers identified be rectified and safety production capacity be improved.

In fire safety management, we adhere to the working policy of “Prevention first, with prevention and elimination combined” and implement “gridding” fire management through the improvement of the system, special rectification, emergency drills and other measures, effectively improving the level of fire safety management. Capturing the opportunity of the “road manager system” management, the Company increase traffic safety checks on road-occupying operations, road facilities and road safety, carry out special operations on overloading, speeding and drunk driving, and optimize traffic signs and road facilities, to ensure that the Company’s logistics and transportation are orderly and road safety is under control.

➤ *Emergency Management*

The Company comprehensively strengthens the promotion of comprehensive emergency management, standardise the handling process of emergencies and ensure the standardised operation of the emergency management system. The Company has revised the Emergency Plan Management Measures to consolidate the foundation of the system; completed the revision of 39 Level 1 emergency plans and 81 Level 2 emergency plans to ensure the operability and effectiveness of the emergency plans. It strengthens the political awareness, legal awareness and responsibility awareness of emergency management personnel. 855 training sessions on emergency management and emergency plans have been conducted by various units, covering 8,803 attendances. The Company has also carried out 141 level 1 and level 2 emergency drills, and evaluated and reviewed the drills to enhance the emergency response capability of the staff; at the same time, it has carried out emergency management inspections and counselling, sorted out emergency problem items and implemented rectification link to continuously improve the emergency management capability.

Case: Chongqing Iron & Steel wins third prize in emergency response skills competition among industry and trade enterprises in Changshou Economic Development Zone

Chongqing Iron & Steel is building an emergency rescue team that is “ready for being called upon, able to fight, and competent for winning”, to safeguard the safety production of the Company. In the emergency skills competition of industrial and trade enterprises in Changshou Economic and Development Zone in 2022, Chongqing Iron & Steel’s emergency rescue brigade won the first place for single item in “three people with three fire-hoses fire-fighting exercises”, the second place for single item in “high and low basin fire-fighting”, and the third prize in annual emergency skills competition in Changshou Economic and Development Zone.



2022 Environmental, Social and Governance Report (Continued)

5. Living a Happy Life

➤ Adding Diversity to Employees' Lives

The Company actively implements the “three havings” life concept of “having money, leisure and fun” to enhance employees’ “sense of gaining, happiness and security”. In 2022, the Company continued to pay attention to the work-life balance of its employees, offering yoga classes, aerobic exercise classes and various cultural and sports activities such as 005 book rafting, football match, poetry appreciation and photography training. With the corporate culture concept as the leadership, being people-oriented as the basis and cultural empowerment as the core, we fully explore the cultural resources of the plant area and show the corporate style, activate staff’s spare time and meet their needs for a better life by building cultural exchange positions, creating special cultural attractions and brands.



➤ Supporting Employees in Need

We provide care and support to our employees at different levels in accordance with the principle of “precision + inclusiveness”. On the eve of the Spring Festival in 2022, the leadership of the Company led a team to pay visits to employees in difficulty and model workers, and granted RMB112,000 total.

The Company tries to do a good job in standardizing the operation and management of the mutual fund for employees with serious illnesses, to ease the impact brought to families by illnesses. In 2022, 37 employees were reimbursed for mutual medical assistance, with a subsidy amount of RMB366,000.

In September, the main leadership of the Company led teams to visit the production site and the leisure fun park to console the staff in difficulty, congratulate their children on being admitted into universities and provided them with financial assistance.



(IV) Industry Development

The Company is cooperating with multiple parties to deepen strategic cooperation and jointly promote the construction of a high-quality steel ecosystem, while accelerating the construction of shared experimental bases and shared databases, building a stable communication and exchange platform, and promoting cooperation among industry, university and institutes.

➤ *Participating in preparing industry standards*

In 2022, we participated in a total of 5 national and industry standard preparation, including 4 national standards and 1 industry standard. Of the 5 standards, 1 has been submitted for approval, 3 are under validation and 1 is in the process of construction commencement.

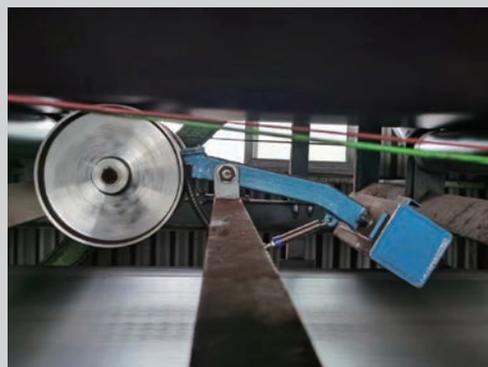
➤ *Innovating and promoting industry technology*

The project of hot delivery and direct rolling of double high rods was completed in August 2021 and was in stable production 24/7 on 7 April 2022, with a 100% hot delivery-to-direct rolling ratio. Through the three-in-one production organisation of steelmaking-continuous casting-rolling process, steelmaking provides molten steel with qualified composition, continuous casting guarantees defect-free billets with qualified temperature, which are transferred to the steel rolling production line through a high-speed roller bed to achieve low energy consumption production of steel rolling without a heating furnace. The continuous casting ensures that the billets are of acceptable composition and temperature and are transferred to the rolling line via a high speed roller conveyor to achieve low energy production without a heating furnace.

On 21 November, the steel rolling matching rate of 7# casting machine – double high rods production line reached 93.69%, the calendar operation rate 96.32%, the output reached more than 5,000 tons, a number of indicators of hot delivery and direct rolling of double high rods production line of Chongqing Iron & Steel set a record high, improving the management level of consistent system for steel rolling process production and quality.

Case: Metallurgical Industry Belt Transport Metering Trade Settlement was First Used in Chongqing Iron & Steel

The online belt weigher at Chongqing Iron & Steel's terminal was put into use on 22 January 2022. The high-precision belt weigher is managed remotely through intelligent software, which monitors the operation of the belt weigher in real time and ensures that the 0.2 level of accuracy (within a measurement accuracy of 0.3%) is always maintained. The data are also connected to the operation control platform to achieve accurate trade settlement in a timely manner. At the same time, the vessels to be discharged "can be discharged as and when they arrive" and are no longer affected by site environment, climate and time. For the first time in the metallurgical industry, the belt transport metering trade settlement is being used.



Long-term Strategic Cooperation Agreement signed by the Company and Communication Platform in 2022

- ✓ The Procurement Entrustment Management Agreement and Industrial Products Logistics Service Contract entered into with Ouyeel Industrial Products
- ✓ The Logistics Management and Service Package Agreement for Finished Products of Chongqing Iron & Steel entered into with Ouyeel Cloud
- ✓ An agreement on Party organization cooperation and co-construction entered into with Baohua Tendering
- ✓ A Party committee joint building and strategic cooperation agreement entered with Baosteel Engineering
- ✓ Collaboration with Chongqing University on the project of “Research on Energy Efficiency Improvement Technology for Residual Heat and Gas Power Generation”



Signing of a Joint-construction Agreement with Baohua Tendering



Signing of an Agreement on Professional Integration of Semi-finished Products

SHARING•STAYING TRUE TO THE ORIGINAL ASPIRATION OF SERVING THE COUNTRY

The enterprise belongs to society, and it is duty-bound to fulfill environmental and social responsibilities. Chongqing Iron & Steel thoroughly applies the vision of green development, tightens energy conservation and environmental protection supervision management, implements source control of energy conservation and emission reduction, and reduces the consumption of products at resources and its environmental impact as it creates a “Chongqing Iron & Steel Immersed in Green and Charming Landscape” “surrounded by lush mountains and lush waters”, being committed to becoming a leading green and low-carbon enterprise. At the same time, the Company contributes to regional prosperity through public welfare activities and voluntary services, improves people’s well-being, and helps create a harmonious society.

(I) Green Development

1. *Strengthening Environmental Protection Management*

Green waters and lush mountains are invaluable assets. The Company adheres to the principle of giving priority to ecological and environmental protection, improves the environmental management system construction, strengthens environmental risk prevention, conducts environmental education and training, and effectively improves the corporate green management level.

In 2022, the Company earnestly implemented Xi Jinping’s thought on ecological civilization and the national Yangtze River protection strategy, took “Higher than Standards, Better than Urban Areas and Integrated into City” as the goal, and the “treatment of three wastes – waste gas, waste water and solid waste” and “cleaning, greening, beautifying and civilizing” as effective means, accelerated the implementation of China Baowu’s master plan for Yangtze River protection, comprehensively benchmarked and searched for differences, having invested RMB1.56 billion in environmental protection, continuously consolidated the achievements of the construction of green city steel mills, and strived to promote the continuous progress of the green indicators, and all energy-saving and emission reduction indicators have completed the target requirements set by the Group and the urban area.

Environmental protection policy: Law-abiding integrity, all employee participation; prevention first, publicity and supervision going hand in hand; energy conservation and emission reduction, clean production; environmental protection for shared harmony

Environmental protection goals: Green, low-carbon and environmentally friendly development

2022 Environmental, Social and Governance Report (Continued)

➤ Environmental Management System

In order to meet the requirements of the environmental management system, in 2022, the environmental management system had been continuously improved and our environmental management capability has been enhanced through the revision of the management systems such as the Measures for Accountability for Environmental Protection Incidents, the Measures for Construction Waste Management and the Measures for Industrial Solid Waste Management, and the environmental management system certification was within the validity period.

➤ Target Completion

In 2022, there were no environmental protection incidents of category A and B as stipulated in the Measures for Accountability for Environmental Protection Incidents occurred, and the total emissions of sulphur dioxide, nitrogen oxides, chemical oxygen demand and ammonia nitrogen were 2,949 tons, 7,817 tons, 155 tons and 13 tons, respectively, with emissions of all pollutants meeting the target requirements, and the average atmospheric dust reduction in the plant area was 14.5 tons/month•square kilometre, fulfilling the monthly control target. The Green Indicator was 74, fulfilling the annual target. We have not been imposed with any administrative penalties for environmental violations.

➤ Clean Production Audit

We continue to effectively promote clean production work, have set up a clean production team headed by the President, and formulated a clean production audit plan and implemented clean production projects in accordance with the schedule; submitted the Clean Production Audit Report to the Chongqing Changshou District Ecological Environment Bureau in June 2022 and passed the audit.

➤ Environmental Impact Assessment for New Projects

We strictly implemented the environmental protection “three simultaneous” system. For projects to be built and projects under construction in 2022, the environmental impact assessment and environmental protection completion and acceptance work were promoted in accordance with the nodes, and there were no cases of unapproved construction, non-conformity between approved construction and actual construction and input without prior examination. 7 environmental impact assessment reports, including that on the project to improve the automation capacity and equipment capacity of the hot rolling production line of the rolling mill, were prepared and approved, and 9 completion acceptance environmental inspections, including the hazardous waste warehouse construction project, were carried out, to ensure that the environmental procedures for new, alteration and expansion projects were sound and complete.

The Company strictly abides by the environmental impact assessment and “three simultaneous” system for construction projects. The hazardous waste and hazardous waste warehouses construction, energy consumption, waste gas and sewage emissions, and noise pollution prevention and control during the construction of the project all meet the relevant environmental impact assessment requirements.

➤ Environmental Monitoring System

We improve the wastewater and exhaust gas online monitoring system. In accordance with the requirements of the pollutes discharge permit and relevant documents on ultra-low emission of waste gas, 50 online monitoring systems for organised waste gas outlets, 12 online monitoring systems for waste water and a total of 29 air micro-stations have been installed to enhance the capacity of environmental risk prevention and control.

➤ Response to Environmental Emergencies

We strengthen risk control of environmental emergencies. The Company has revised the Risk Assessment Report on Environmental Emergencies of Chongqing Iron & Steel Company Limited, formulated the Company, Plant (Department) and Operation Area Level Drill Plan and Scheme for Environmental Emergencies Emergency Plan for 2022 in accordance with the relevant requirements of the Environmental Emergencies Emergency Plan, and carried out emergency drills for environmental emergencies at all levels according to the plan, and jointly carried out emergency drills with Changshou District Ecological Environment Bureau and other departments, to improve the ability to prevent and handle environmental emergencies.

➤ Environmental Protection Training and Education

The Company has promoted a series of environmental education and training activities in a solidly manner to strengthen the environmental awareness of all staff. In 2022, all staff attended the training on environmental protection policies and systems, achieving full coverage. The Company advanced a series of environmental education and training activities in a solid manner to heighten the environmental awareness of all staff.

➤ Special training on situation policies, laws and regulations

To fully implement Xi Jinping’s thought on ecological civilization and the requirements of the National Conference on Ecological Environment Protection, we organized study and seminar on the Law on the Prevention and Control of Solid Waste Pollution, the Regulations on the Administration of Emission Permits and the Comprehensive List of Environmental Protection.

2022 Environmental, Social and Governance Report (Continued)

➤ Implementation and communication of key tasks

We have compiled environmental protection manuals such as the Interpretation of Xi Jinping's Thought on Ecological Protection and conducted training on the Technical Guidelines for Ultra-low Emission Conversion for Iron and Steel Enterprises adopting a combination of online courses + special research and study, to further understand the technical route of ultra-low emission conversion.

➤ Community-enterprise joint contribution for shared benefits

We have carried out environmental protection-themed publicity activities such as "Ecology first, Green development and Building a 'Clean and Beautiful World' Together", "Launching Ceremony of Chongqing Iron & Steel Capacity Expansion and Quality Improvement Project for the Wastewater Treatment System" and "Harmonious Coexistence between Man and Nature" to promote the industry-city integration and shared green space.



2. *Energy and Resource Conservation*

In 2022, the Company adhered to the working policy of “extreme energy consumption, extreme energy efficiency” in energy management, strengthened management, improved internal skills, and focused on transformation and efficiency, which effectively controlled energy consumption and steadily improved the level of energy management.

In 2022, the comprehensive energy consumption of 533kgce/t per ton of steel met the annual target; and the energy consumption of each production line was generally under control, and the national energy consumption limit was completed. Successfully passed the national energy-saving inspection for major industrial projects and the “Hundred, Thousand and Ten Thousand” inspection for key energy consumption units.

➤ Improving Energy Management Systems

During the reporting period, the Company maintained its energy management system certification and continuously improved its energy management system. Firstly, the Company established a company-level energy and environmental protection management committee with the president as the team leader and the heads of each process as members of the group by leveraging the organisational effectiveness to guide and supervise each unit (process) to assume the main responsibility and strengthen, co-ordinate and collaborate in promoting energy management. Second, with the help of the Energy and Environmental Protection Professional Committee, the Company played a professional role in solving its important (difficult) problems in energy and environmental protection and provide technical support for the Company’s green and low-carbon development and smooth production. Third, the Company established the target responsibility system, improved the system management system, implemented the regular working meeting mechanism, energy management evaluation mechanism and other working mechanisms.

➤ Energy Saving and Environmental Protection Technology

The Company actively organised relevant technical staff to participate in industry energy-saving training and energy-saving and low-carbon technology exchanges, and successively carried out 11 energy-saving technology exchanges on topics such as energy-saving fans and pumps, energy-saving insulation materials, improved waste energy recovery, high-efficiency energy-saving motor technology and energy-saving lighting in the factory area. We completed the construction and operation of stock energy-saving projects such as “waste heat recovery of waste gas from coke ovens 5# and 6# in the coking process” in 2021, and promoted the implementation of a total of eight energy-saving projects such as “elimination of high energy-consuming and outdated motors”, “elimination of high energy-consuming and outdated transformers” and “sealing renovation of 1# sintering ring cooler”. Tracking and promoting the application of low-carbon metallurgical technologies, such as photovoltaic development, new energy logistics and transportation, low-carbon smelting technology for blast furnaces, microwave heating and sintering technology, etc.

Case: Chongqing Iron & Steel No. 1 Blast Furnace is Awarded the Title of “Baowu Low Carbon Champion Furnace for All Processes”

The No. 1 blast furnace operation area always adhered to the concept that long-term stable smooth operation is the greatest energy saving and consumption reduction of the concept, and made great efforts to maintain long-term stable smooth operation of the furnace condition. In the second quarter of 2022, the No. 1 blast furnace balanced production and consumption, and the coke ratio was steadily maintained at 350kg/t-Fe, achieving efficient and low-carbon operation of the blast furnace.

The Company carried out innovation activities for all staffs and took the opportunity of the major overhaul of the South Water Slag Factory to optimize the design of the water slag tank, which can save 10 tons/casting of wear-resistant material, reduce casting cost by RMB180,000, save 950,000 kWh of electricity, and improve the slag flushing capacity.

By laying new pipelines and adding pumping equipment, the standing water and pit water were pumped back to the blast furnace slag pool for recycling, with a daily pumping capacity of 800 tons, which solved the difficult problem for the material transportation and disposal of water slag and standing water, prevented environmental pollution caused by pit water overflow, reduced the consumption of new water, and contributed to low-carbon and environmental protection operation.



3. *Reducing Pollution Emissions*

The Company formulated Yangtze River Protection Plan, promoted the implementation of the “Three Treatments and Four Aspects”, and the construction of green urban steel factories. According to the national Yangtze River Protection and China Baowu’s environmental protection requirements, we formulated and issued the “2022 Yangtze River Protection Working Plan”, which clarifies the work objectives and specific measures to implement the Yangtze River Protection, and reasonably plans the implementation path of “zero waste water discharge”, “ultra-low emission of waste gas” and “no solid waste leaving the factory”.

➤ Ultra-low Emission of Waste Gas

The Company made an important breakthrough in clean transportation by comprehensively promoting the transformation of ultra-low emission of waste gas. We completed the renovation of key projects such as coke oven and sintering flue gas desulphurisation and denitrification, B1 raw material shed closure renovation and coal refining workshop VOC tail gas treatment, and launched the implementation of coke oven gas refining desulphurisation and B2 and B4 material yard shed closure renovation projects. The upgrading and reconstruction of access control system and vehicles have been completed. The ultra-low emission clean transportation was achieved for two consecutive months in November and December 2022, meeting the requirements of ultra-low emissions.

Case: Ironmaking Factory Achieves Ultra-Low Emissions of Sintering Flue Gas Ahead of Schedule for Blue Sky and Clear Air

Chongqing Iron & Steel took the initiative to invest nearly RMB600 million to complete the transformation of No. 2 and No. 3 sintering sulphur dioxide ultra-low emissions in 2020, and complete the transformation of No. 2 and No. 3 sintering denitrification and No. 1 sintering desulphurization and denitrification in 2022. After 3 sintering machine head flue gas desulphurization and denitrification facilities were put into operation, the emission concentrations of sulfur dioxide, nitrogen oxides, and particulate matter in the flue gas all reached the requirements of the national ultra-low emission standards. According to calculations, the annual reduction of sulfur dioxide emissions can reach more than 18,000 tons, and the reduction of nitrogen oxide emissions can reach more than 6,000 tons. This effort was made to achieve clearer skies.



Desulphurisation and Denitrification Equipment in Operation

➤ Zero Waste Water Discharge

The Company continued to promote zero waste water discharge and achieve a new breakthrough in zero waste water discharge. The Working Plan for the Special Action of Zero Waste Water Discharge in 2022 was formulated and released. The water balance of the whole factory was tested and a report was compiled; the drainage network renovation projects of iron firing road and coking process were completed; water treatment projects such as rainwater reuse system and special waste water treatment system were built to realise the recycling and reuse of non-conventional water resources of the whole factory, and the amount of waste water discharged out of the factory was 0.9m³/t-s per ton of steel, representing a decrease of 10% year-on-year, with the ability of no visible drainage from the rain discharge outlet on sunny days.

➤ No Solid Waste Leaving the Factory

The Company completed productization certification and achieved the goal of no solid waste leaving the factory. We formulated and implemented the “Action Plan for No Solid Waste Leaving the Factory in 2022 of Chongqing Iron & Steel”, and carried out key tasks according to the task list. The comprehensive utilization rate, return to production rate, and rate of no solid waste leaving the factory in 2022 were 99.9%, 19.23%, and 99.92%, respectively, completing the productisation certification of all solid waste and realising the goal of no solid waste leaving the factory.

The Company completed the professional integration of Baowu Environment’s solid waste business, undertook the business of exporting solid waste and processing and hosting steel slag. Efforts have been made to reduce the source of general industrial solid waste, improve the identification and classification of solid waste, standardize storage locations, achieve resource utilization and reduction of solid waste from the source, and increase the sorting of industrial waste. The landfill rate of industrial waste has been reduced to 25.44%. We also promoted the internal consumption and disposal of solid waste, and completed a steel slag treatment production line, actively carried out sorting, baling and coordinated disposal of industrial waste, using steelmaking converters to co-dispose of 342 tonnes of de-dusting cloth bags. Through adjustments to the steelmaking process, the return to production rate of LT composite balls made from dust removal ash was increased to 92.87%, representing a year-on-year increase of 19.02%. An industrial solid waste warehouse covering an area of 8,800 m² has been built and put into operation, with the emergency storage capacity for solid waste such as steel slag and refractory waste. An hazardous waste warehouse covering an area of 2000 m² has been built and put into operation, ensuring the compliant storage of hazardous waste and achieving refined management of hazardous waste.

4. *Environmental Governance in the Factory Area*

In accordance with the concept of “factory in the forest, road in the green, people in the scenery”, a total of RMB12.62 million has been invested to improve the landscape of the material yard and the main roads around the steel slag, the important reception along the line, and the honor forest, and the green coverage rate of the factory area has increased to 35.2%. Through the environmental governance in the factory area, a good ecological environment has been created, which is conducive to the protection of biodiversity.



5. *Green Office*

The Company promoted the application of office systems such as China Baowu OA4.0, engineering management system and Weaver platform to promote paperless office; on 31 October 2021, the Company started to put online the operation and control intelligence platform, and in 2022, the Company gave full play to the “digital intelligence” of the platform to support the operation and decision-making of the Company, while optimising business processes and reducing office consumables, which is of far-reaching significance to green and low-carbon development. At the same time, each plant-level unit of the Company is equipped with a video conferencing system to support remote meetings and reduce carbon emissions.



Video Conferencing System

(II) **Giving Back to Society**

While promoting high-quality green development, Chongqing Iron & Steel has taken the initiative to assume social responsibility, giving back to society by responding to community needs and promoting various public welfare projects, seeking to develop synergistically with its operating locations and building a better life together.

1. Responding to Community Needs

Case: High Temperature Water Delivery “Just in Time” for Chongqing Iron & Steel to Solve the Immediate Water Needs in Tianxing Village

In August 2022, the water intake point in Tianxing Village in Jiangnan Street, Changshou District, dried up due to continuous high temperatures, leaving nearly 30 people in 13 households without access to tap water for drinking. After receiving the distress call, Chongqing Iron & Steel quickly arranged for fire trucks from the Safety and Security Department to be refilled with domestic water and sent the water to Tianxing Village at the first opportunity, solving the villagers’ immediate needs.

The firefighters quickly connected the water pipes while organising the villagers to line up for water. Under the “baking” heat of 40° C, the firefighters’ clothes were soaked with sweat, and when children and elderly came to collect water, they took the initiative to help them collect and deliver water. That year, they delivered water to Tianxing Village 14 times, totaling more than 80 tons.

The villagers and water delivery team gave a thumbs up and they said that water is indispensable for production and life in extreme hot weather, and the water delivered by Chongqing Iron & Steel was like a “timely rain”, which solved their living difficulties, and expressed their gratitude to Chongqing Iron & Steel for what they had done for Tianxing Village in rural revitalisation, drought relief and water delivery, and hope that Chongqing Iron & Steel would get better and better.



Case: The Public Security Bureau of Changshou District Praises and Sends a Banner for its Courageous Efforts to Fight the Pandemic

The COVID-19 prevention and control emergency command of Chongqing Iron & Steel (the “Emergency Command”) actively responded to the deployment and requirements of the higher authorities for pandemic prevention and control, and always adhered to the overall strategy of “preventing external input and internal rebound” and the general principle of “dynamic clearance”. The collaborative action was carried out by the Pandemic Prevention Office of Changshou Economic Development Zone, the Pandemic Prevention Office of Jiangnan Street, the Pingan Office of Jiangnan Street, the Longshan Community of Jiangnan Street and the Nanbin Road Community of Jiangnan Street, to joint build a security barrier for joint prevention and control of the pandemic in Changshou Economic Development Zone and Jiangnan Street, ensuring that no one is left out in risk screening and no one is left out in health management. More than 1,400 people were tested for nucleic acid, 109 people were monitored at home and 3 people were centrally quarantined, so as to treat the pandemic quickly and resolutely stop the spread of the pandemic and contribute to the prevention and control of the pandemic in Changshou District.

The Public Security Bureau of Chongqing Changshou District presented the Company with a banner inscribed with the words “Police and Enterprises Join Hands to Build a Strong Bulwark Against the Pandemic and Work Together to Protect the Safety of Changshou District”.



2. Promoting Public Welfare Activities

Since 1 June 2018, Chongqing Iron & Steel has officially registered and established the Youth Volunteer Service Team, along with the “Chongqing Iron & Steel Youth Volunteer Service Work Regulations”. Focusing on the Company’s major meetings, major activities and the needs of corporate social responsibility work, with the goal of promoting the normalisation, institutionalisation and standardisation of volunteer services for learning Leifeng, the Company combined with the actual situation, vigorously carry out volunteer services for civilisation practice in the new era.

In 2022, in response to the needs of local government and enterprise development, the Company vigorously promoted the volunteer spirit of dedication, love, mutual assistance and progress, carrying out a total of 235 volunteer service activities, with a total of 1,275 participants and a total of more than 11,000 hours of volunteer service.

At the same time, we actively participated in the “Let Love Hear – Care for the Hearing Impaired” public welfare project, the “Information Classroom” construction project in rural schools, and donated to the Chongqing Red Cross Foundation and Chongqing Education Development Foundation. Through the purchase of agricultural products, China Baowu helped Guangnan County in Yunnan Province to consolidate the results of poverty eradication and serve the rural revitalisation, with a purchase amount of RMB2.585 million.

Case: Harvesting Corn! Chongqing Iron & Steel’s “Young People” Helps Farmers in the Golden Autumn

In July and August, when the corn was ripe, an elderly man in Tianxing Village, Changshou District, accidentally injured his waist and was unable to carry out heavy physical labor. Upon receiving a call for volunteers from Tianxing Village, the Chongqing Iron & Steel Youth League Committee responded immediately and organised the Qingfeng Volunteer Service Team to help the elderly man harvest the corn, fulfilling its commitment of supporting targeted poverty alleviation and rural revitalisation.



Case: “Let Love Warm the Campus! Chongqing Iron & Steel Conducts Qingfeng Volunteer Service Activities at Special Education Schools”

In September 2022, the Chongqing Iron & Steel Youth League Committee visited the special education school in Changshou District to carry out Qingfeng Volunteer Service Activities under the theme of “Love Warms the Campus, Volunteers Spread Civilization”. They brought towels, lunch boxes, and other daily necessities to the children, bringing them care and companionship in their learning and daily life.



OUTLOOK

Keep the national strength of steel alive and build a green and wonderful life. In the future, we will fully implement the spirit of the 20th CPC National Congress, with a vibrant passion for striving and entrepreneurship, a mission to pursue green development, and a loyal commitment to serving the nation with steel. We will go beyond ourselves, outperform the market, pursue excellence, actively fulfill our social responsibilities, share the fruits of development with the people, coexist harmoniously with society, and make contributions to the realization of the second centenary goal and the great rejuvenation of the Chinese nation's journey towards the Chinese Dream.

2022 Environmental, Social and Governance Report (Continued)

APPENDIX

(I) Key Performance Indicators (KPI)

Indicator	Unit	2022	2021	2020
Operating income	CNY100 million	365.62	398.49	244.9
Total profit	CNY100 million	-12.02	22.63	6.24
Net profit	CNY100 million	-10.19	22.74	6.38
Total tax paid	CNY100 million	5.47	2.82	6.59
Operating profit ratio (Operating profit/ Net operating income)	%	-3.19	6.18	2.78
Growth rate of operating income	%	-8.25	62.72	4.34
Liquidity ratio (Current assets/Current liabilities)	%	65.18	86.63	97.16
Use of funds for staff and workers education	CNY10,000	349.32	259.77	308.41
A-share market value	CNY100 million	132.41	175.15	124.03
H-share market value	CNY100 million	4.52	6.89	4.25
R&D expenditure as a percentage of revenue	%	3.71	3.15	3.63
No. of members of BOD	Person	9	9	9
No. of independent directors	Person	3	3	3
Proportion of female directors	%	0	0	0
The number of days between the notice date and the convening date of the annual general meeting of shareholders	Day	29	34	26
Employee ownership of equity incentive as a percentage of total capital	%	0.51	0.51	0.5
No. of employee corruption lawsuits	/	0	0	0
No. of employees attending anti- corruption related training	Person	280	110	330
No. of employees punished or dismissed for violation of anti- corruption policies	Person	5	24	16
Corruption-related fines, penalties or settlement costs	CNY10,000	8.69	28.66	3
R&D Investment	CNY100 million	13.56	12.56	8.90
Total No. of patents filed throughout the year	Piece	392	274	56
No. of invention patents filed throughout the year	Piece	270	104	11

2022 Environmental, Social and Governance Report (Continued)

Indicator	Unit	2022	2021	2020
Total No. of newly authorized patents throughout the year	Piece	222	97	20
No. of newly authorized invention patents throughout the year	Piece	17	3	0
Proportion of R & D personnel	%	13.23	12.86	16.57
Year-on-year growth rate of R & D expenditure	%	109.81	–	–
Total No. of customers	/	242	235	216
Total No. of customers in East China	/	55	54	31
Total No. of customers in South China	/	14	13	7
Total No. of customers in North China	/	8	6	20
Total No. of customers in Southwest China	/	165	148	151
Total No. of overseas customers	/	0	0	0
No. of customer complaints accepted	/	622	362	291
Customer complaint resolved rate	%	100	100	100
Customer satisfaction	%	86.12	88.79	94.53
No. of registered suppliers	/	262	259	253
No. of domestic suppliers	/	259	254	249
No. of foreign suppliers	/	3	5	5
No. of suppliers reviewed by a second party during the reporting period	/	14	15	–
Total No. of employees	Person	6215	6734	6606
Total No. of male employees	Person	5188	5580	5469
Total No. of female employees	Person	1027	1154	1137
Total No. of full-time employees	Person	6215	6734	6606
Total No. of part-time employees	Person	0	0	0
No. of employees aged 35 and below	Person	2332	2878	2886
No. of employees aged 36 to 40	Person	1036	736	568
No. of employees aged 41 to 50	Person	1643	2025	2331
No. of employees aged 51 to 60	Person	1204	1095	821
No. of employees with household registration in the province	Person	5568	6009	6040
No. of employees with household registration outside the province	Person	647	694	597
Proportion of employees with disabilities	%	0.69	0.59	0.61
No. of new jobs added in the reporting period	Person	25	239	109
Labor contract signing rate	%	100	100	100
Proportion of female managers	%	10.70	9.8	6.6

2022 Environmental, Social and Governance Report (Continued)

Indicator	Unit	2022	2021	2020
No. of paid vacation days per capita per year	Day	10.78	10.96	10.62
Total social insurance contributions	CNY10,000	27731.27	21867.56	18380.87
Management compensation/Total employee compensation	%	0.97	1.61	4.1
Employee social insurance coverage	%	100	100	100
Employee health examination coverage	%	100	100	100
Total investment in employee training	CNY10,000	414.80	586	416.8
Proportion of employees trained	%	100	100	100
No. of male employees trained	Person	5188	5580	5469
Proportion of male employees trained	%	100	100	100
Training hours per male employee	Hour	102	86.24	42.15
No. of female employees trained	Person	1027	1154	1137
Proportion of female employees trained	%	100	100	100
Training hours per female employee	Hour	95.20	86.3	42.15
No. of management employees trained	Person	271	276	377
Proportion of management employees trained	%	100	100	100
Per capita training hours of management employees	Hour	125	111	57
No. of technical business employees trained	Person	904	961	806
Proportion of technical business employees trained	%	100	100	100
Per capita training hours of technical business employees	Hour	104	109	36
No. of operation and maintenance employees trained	Person	5040	5497	5423
Proportion of operation and maintenance employees trained	%	100	100	100
Per capita training hours of operation and maintenance employees	Hour	99	81	42
Employee turnover rate	%	0.93	0.94	0.73
Turnover rate of male employees	%	1.07	0.91	0.75
Turnover rate of female employees	%	0.27	1.04	0.62
Turnover rate of employees under 30	%	0.40	0.4	0.18
Turnover rate of employees aged 30 to 40	%	0.20	0.28	0.15
Turnover rate of employees aged 41 to 50	%	0.10	0.12	0.27

2022 Environmental, Social and Governance Report (Continued)

Indicator	Unit	2022	2021	2020
Turnover rate of employees above 50	%	0.05	0.13	0.12
Turnover rate of employees with household registration in the province	%	0.06	0.84	0.58
Turnover rate of employees with household registration outside the province	%	1.82	1.73	2.18
Workplace safety investment	CNY100 million	0.64	0.15	0.24
No. of workplace safety training sessions	Session	27632	5319	5766
No. of participants in workplace safety training	Person	382196	97586	99025
Total duration of workplace safety training	Hour	16532	7375	8192
Occurrence of occupational diseases	Time	0	0	0
No. of work-related deaths	/	0	0	0
No. of severe injury accidents of employees	/	1	1	0
No. of employees with severe injuries	Person	1	2	0
No. of employees with minor injuries	Person	2	1	0
Injury rate per thousand people	‰	0.46	0.46	0
No. of work-related fatal accidents of related parties	/	1	3	2
No. of work-related deaths of related parties	Person	1	3	2
No. of working days lost due to work-related injuries	Day	6780	18430	12000
Death rate of workers due to work-related injuries	%	0.01	0.02	0.002
Safety training coverage	%	100	100	100
Special operations personnel certification rate	%	100	100	100
OHSAS18001 certification coverage ratio	%	100	100	100
Total external donations	CNY10,000	18.	34.24	4.75
No. of employee volunteers	Person	232	–	–
Total number of hours of volunteer service activities for the year	Hour	11000	–	–
No. of participants in volunteer service activities	Person	1275	–	–
Projects' environmental impact assessment rate	%	100	–	–

2022 Environmental, Social and Governance Report (Continued)

Indicator	Unit	2022	2021	2020
Total CO ₂ emissions	Ton	123,347,506.86	12,588,792.00	10,279,938.14
CO ₂ emissions per ton of steel	Ton/Ton	1.45	1.48	1.49
CO ₂ emission intensity per ton of steel	Ton/Ton of product	1.45	1.48	1.49
Total SO ₂ emissions	Ton	2,948	4,443	3,818
SO ₂ emissions per ton of steel	Kg/Ton	0.35	0.52	0.53
Total nitrogen oxide emissions	Ton	7,817	7,282	5,565
Nitrogen oxide emissions per ton of steel	Kg/Ton	0.92	0.85	0.78
Total particulate matter emissions	Ton	5,250	9,000	9,628
Particulate matter emissions per ton of steel	Kg/Ton	0.62	1.05	1.3
Total raw coal consumption	10,000 tons	152.37	150.55	122.71
Total consumption of washed coal	10,000 tons	412.95	394.57	365.96
Total coke consumption	10,000 tons	312.90	320.07	260.55
Total electricity consumption	100 GWh	21.40	29.6	26.15
Total natural gas consumption	10,000 cubic meters	1,435.42	697.24	707.03
Renewable energy use	100 GWh	39.80	28.12	25.43
Comprehensive energy consumption	10,000 tons of standard coal (equivalent value)	529.05	468.03	404.73
Comprehensive energy consumption per ton of steel	Kgce	533.10	547.68	527.68
Total amount of hazardous waste generated	Ton	141,841.83	140,228.47	133,843.28
Hazardous waste generation density	Kg/Ton	16.88	16.51	18.81
Hazardous waste standardization management qualification rate	%	100	100	100
Hazardous waste utilization and disposal volume	Ton	141,971.34	140,228.47	133,843.28
Safe disposal rate of hazardous waste	%	100	100	100
Total amount of non-hazardous waste generated	Ton	5,018,622.48	4,391,264.55	4,282,323.28
Density of harmless waste generation	Kg/Ton	589.00	516.87	601.83
Total amount of hazardous waste generated	Ton	141,841.83	140,228.47	133,843.28
Hazardous waste generation density	Kg/Ton	16.88	16.51	18.81
Total amount of solid waste generated	10,000 tons	501.86	439.13	428.23
Total amount of solid waste utilized	10,000 tons	501.46	438.59	427.68
Solid waste utilization rate	%	99.92	99.88	99.87

2022 Environmental, Social and Governance Report (Continued)

Indicator	Unit	2022	2021	2020
Total recyclable waste generation	10,000 tons	501.34	438.59	427.68
Total amount of non-recyclable waste generated	10,000 tons	0.39	0.54	0.55
Total water withdrawal	10,000 tons	3,523.45	3,555.82	3,323.56
Total drainage volume	10,000 tons	767.75	865	902
Total annual new water consumption	10,000 tons	3,523.45	3,555.82	3,323.56
New water consumption per ton of steel	Cubic meter/Ton 10,000 cubic meters	2.83	3.3	3.96
Total industrial water reuse	meters	157,101.63	155,222.34	152,345.61
Industrial water reuse rate	%	98.10	98.32	98.34
Total water saving	10,000 tons	152	160	100
Total wastewater discharge	10,000 tons	767.75	865	902
Total chemical oxygen demand discharge	Ton	155	167	150
Chemical oxygen demand emissions per ton of steel	G/Ton	0.02	0.019	0.02
Total ammonia nitrogen emissions	Ton	11.68	17.42	9.5
Tons of steel ammonia nitrogen emissions	G/Ton	0.0013	0.002	0.001
Environmental Management System (ISO14001) Certification coverage rate	%	100	100	100
Number of environmental protection training	Session	15	15	–
Number of people trained in environmental protection	Person	6215	6734	–
Duration of environmental protection training	Hour	75	75	–

2022 Environmental, Social and Governance Report (Continued)

(II) Index of Indicators

First-level Title	Second-level Title	Guidelines for Corporate Social Responsibility Report in China (CASS-CSR5.0)	Environmental, Social and Governance Reporting Guide of Hong Kong Stock Exchange	Location
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About Chongqing Iron & Steel	Organizational Structure	P4.1		8
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	Big Events in 2022	P3.1		9-11
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Topic 2: Taking Responsibility as Strong as "Steel", Emergency Aid to Fight the Mountain Fire		P3.1		16-19
	Governance Overview	G1.2, G1.10		20-22
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First-level Title	Second-level Title	Guidelines for Corporate Social Responsibility Report in China (CASS-CSR5.0)	Environmental, Social and Governance Reporting Guide of Hong Kong Stock Exchange	Location
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(III) FEEDBACK

Dear readers:

Hello! Thank you very much for reading the 2022 ESG Report of Chongqing Iron & Steel Co., Ltd.! In order to continuously improve the management of ESG report, we particularly hope to hear your comments and suggestions. Please help to complete relevant questions in the feedback table and feed it back through the following ways:

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Your information

Name: _____ Tel.: _____

Employer: _____ Email: _____

Choice questions (please tick “✓” in appropriate box)

- Please evaluate the degree to which the Report reflects the significant impact of Chongqing Iron & Steel on the economy, society and environment:
 Very good Relatively good General Relatively bad Very bad
- Please evaluate the response and disclosure of the Report to stakeholders' concerns:
 Very good Relatively good General Relatively bad Very bad
- Please evaluate the clarity, accuracy and completeness of the information, indicators and data disclosure in this Report:
 Very good Relatively good General Relatively bad Very bad
- Please evaluate the readability of this Report:
 Very good Relatively good General Relatively bad Very bad
- Please make a comprehensive evaluation of the 2021 ESG Report of Chongqing Iron & Steel:
 Very good Relatively good General Relatively bad Very bad

Open Questions

- What suggestions do you have for the ESG work of Chongqing Iron & Steel?
- What do you think are the shortcomings of the Report?
- What do you think the Report has provided you with valuable information about social responsibility?
- What other social responsibility information do you think shall be disclosed in the Report?