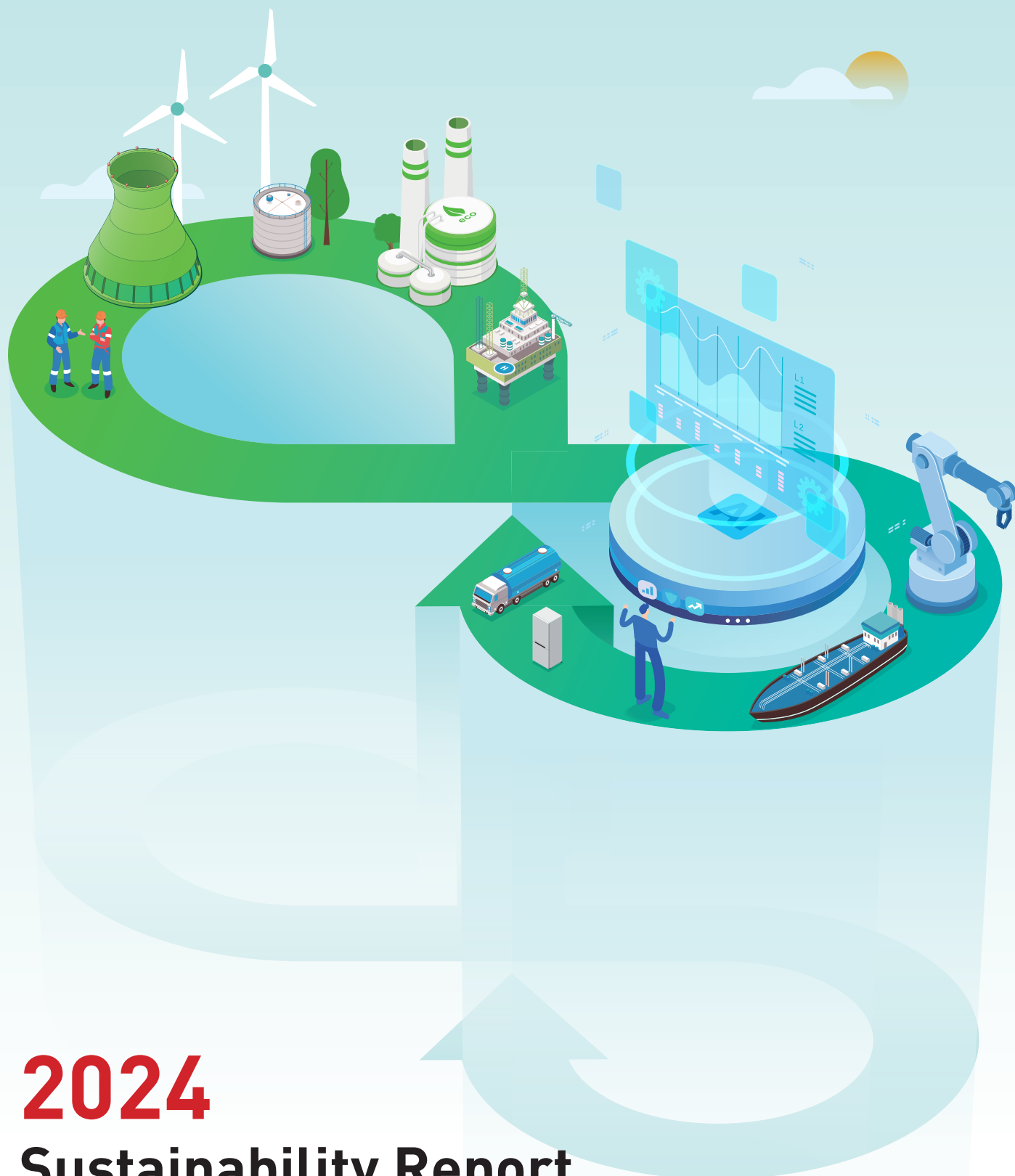




山钢股份  
SD STEEL



# 2024 Sustainability Report

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## About This Report

Esteemed readers:

This *2024 Sustainability Report* by Shandong Iron and Steel Co., Ltd. adheres to the principles of objectivity, standardization, transparency, and comprehensiveness. It systematically presents Shandong Iron and Steel Co., Ltd.'s concepts, actions, practices, and achievements in 2024 regarding environmental, social, and corporate governance.

Shandong Steel

April 2025

### ○ Reporting Scope

This Report covers Shandong Iron and Steel Co., Ltd. and its subsidiaries, branches, directly affiliated organizations, and directly affiliated plant divisions.

### ○ Description of Titles

For ease of presentation and reading: "Shandong Iron and Steel Co., Ltd." is also referred to as "Shandong Steel," "the Company," or "we." "Shandong Iron and Steel Group Co., Ltd. is also referred to as "SISG" or "the Group."

### ○ Reporting Period

From January 1, 2024 through December 31, 2024. For consistency and comparability, some content may extend beyond the aforementioned timeframe.

### ○ Release Cycle

This Report is compiled annually and is generally published before the end of April in the following year.

### ○ Data Sources

All data contained in this Report originate from official documents and statistical reports of Shandong Iron and Steel Co., Ltd. This report is published in both Chinese and English versions. In the event of any discrepancy, the Chinese version shall prevail.

### ○ Reporting Standards and References

- © *GRI Standards* by the Global Sustainability Standards Board (GSSB)
- © United Nations 2030 Sustainable Development Goals (SDGs)
- © *China Corporate Sustainability Report Guidelines (CASS-ESG 6.0)*
- © *Guidelines No. 4 of Shanghai Stock Exchange for Self-Discipline Supervision—Compilation of Sustainability Report*
- © *Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial)*
- © *Guidelines on ESG Indicator System for Shandong Provincial State-owned Listed Companies* [(2024) Document No.3]
- © *Guidelines for the Special Report on Environment, Society and Governance (ESG) for Iron and Steel Enterprises* by the China Iron and Steel Association

### ○ Report acquisition method

You may download the electronic version of this Report from: The relevant announcements posted by Shandong Steel (Stock Code 600022) on the Shanghai Stock Exchange official website: <http://www.sse.com.cn>; or The website of SISG <http://www.shansteelgroup.com/> → Listed Companies→Shandong Steel (600022.SH) section.



Xie Qi

Chairman of Shandong Iron and Steel Co., Ltd.

## Message from the Chairman

In 2024, confronted with internal and external pressures, Shandong Steel remains guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, fully, accurately, and comprehensively implements the new development philosophy, and firmly seizes the major opportunity of China Baowu's strategic investment and Baoshan Iron & Steel Co., Ltd.'s equity participation in the Company's Rizhao segment. Anchored in the core objective of "turning losses into gains" and focused on "transformation for survival," we have turned crises into opportunities and tackled challenges head-on. As a result, the Company achieved remarkable progress in corporate governance, green and low-carbon, environmental protection, technology and innovation, talent development, and social welfare—maintaining stable growth in the face of adversity.

**Robust Governance Assurance.** We adhere to Party leadership as the driver of development, fully implement the "two in-depth integrations," focus on the Company's development strategy, and engage in scientific planning, management, and operations. Shandong Steel has established and refined its institutional framework, standardized decision-making and management procedures, and strengthened Board development to achieve diversity, independence, and professionalism among Board members. We are committed to deepening ESG governance practices, strengthening ecological and environmental protection, actively fulfilling our social responsibilities, and continuously advancing the modernization of our corporate governance system and governance capabilities. Meanwhile, the Company has improved its risk prevention and control system, intensified the building of a law-based enterprise, and promoted the Company's long-term, stable, and sustainable development. In 2024, we received the "Excellent Practical Case of Board of Directors of Listed Companies" award, ranked among the top 20 in governance at the 2nd Guoxin Cup "ESG Golden Bull Awards," and was rated as an ESG AAA-level enterprise among China's steel companies.

**Change to Survive, Gain Momentum and Empower.** Reform of corporate systems and mechanisms has advanced in depth, with the "1+6+N" transformation initiatives now in effect. Shandong Steel has gradually established organizational and institutional frameworks featuring "centralized consistency, streamlined structures, efficient processes, and clear responsibilities." By integrating the Company's headquarters with the Jinan Steel City Base, the number of departments has been reduced by 52%. Further streamlining of personnel, deep-level reforms in procurement and marketing, centralized and consistent control over

production and quality, and substantial improvements in asset quality have collectively enhanced efficiency across human resources, production, finance, and asset management. Through this transformation for survival, we have sparked vitality and accumulated momentum for continued empowerment.

**Green and Smart, Accelerating Progress.** Upholding the concept of "low-carbon, clean operations, and a green Shandong Steel," we prioritize climate change mitigation, deepen environmental management, strictly control air emissions, reinforce solid waste disposal, safeguard biodiversity, and firmly maintain environmental baselines. We have further consolidated our existing A-level performance in overall environmental protection. Both production bases passed national Green Factory re-evaluations, and the Rizhao Base became the first in the province's steel industry to be officially recognized as a "Double-Carbon Best Practice Energy-Efficiency Benchmarking Demonstration Enterprise." The digital and intelligent steel initiative has gained full momentum, advancing integrated intelligent-manufacturing upgrade projects. Both production bases have accelerated the launch of the PLMS, PSCS, and iEQMS systems, while the Rizhao Base has fully rolled out the standard finance system and the IMC system. These green, digital, and intelligent transformations have further empowered the Company to achieve higher-quality development.

**Technology-Driven Innovation, Unleashing New Quality.** We vigorously implement a "talent-driven, collaborative innovation, and intelligence-based market strategy," adhering to a "high-end drive, technology leadership" approach. Aligned with "high-end, intelligent, green, and efficient" development goals, Shandong Steel continuously enhances scientific and technological innovation as well as value-creation capabilities. Centering on bottlenecks affecting on-site process continuity, cost optimization, quality stability, and performance improvement, the Company intensifies R&D efforts and advances process optimization—boosting efficiency and reducing costs. Focusing on evolving market demands, we concentrate on the R&D of high-quality, high-end products. By steadily increasing both R&D investment and the share of R&D expenses, we remain at the forefront of the steel industry in patent innovation capability.

**Talent-Focused, Building Strength for Future Breakthroughs.** Upholding the principle of "people-oriented care and employee well-being," we have vigorously advanced talent-first and talent-strengthening strategies, concentrating on forming a high-level talent hub and constantly improving our talent-development systems and mechanisms. Shandong Steel innovates training models, establishing collaborative "Industry-University-Research-Application" mechanisms. We have also deeply implemented the "Youth Advancement Plan" and "300 Young Talents Initiative," refining routine processes for selecting, nurturing, and engaging young professionals. Meanwhile, the Company has optimized employees' career development pathways, ensuring clear progression routes in management, technical, and skilled roles—fully unleashing talent innovation and creativity. By combining inclusive services with targeted assistance, we have continually enhanced employees' sense of belonging, happiness, and fulfillment.

**Moving Forward Together, Building a Happy Shandong Steel.** We uphold high standards and quality in conducting Party discipline study and education, fostering a robust atmosphere of learning, understanding, and abiding by discipline. Standing side by side with employees, the Company leverages the "Happiness, Harmony, and Practical Projects" approach to continually upgrade "three rooms, one hall, and one center" facilities (encompassing staff lounges, study rooms, activity rooms, a canteen, and a health center). We vigorously implement the "Health Escort, Union Support" action plan to enhance employee well-being. Meanwhile, Shandong Steel continues to strengthen investor relations, promptly addresses stakeholders' concerns, actively promotes market value management, and strives to deliver returns to shareholders and all stakeholders. Acting with honesty and sincerity, we advance strategic cooperation in all directions and make full use of social resources, creating a harmonious and stable business environment along with a safe and fulfilling workplace. By ensuring that the outcomes of reforms and development are more fairly shared by employees and stakeholders, we work as one, hand in hand, to forge a bright future for the Company.

2025 is both the closing year of the 14th Five-Year Plan and the year of planning for the 15th Five-Year Plan, as well as a pivotal year for Shandong Steel to reverse losses and achieve a transformative breakthrough. Succeeding in these year-long efforts is of great significance, carries heavy responsibilities, and holds an honorable mission. We will continue upholding Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era as our fundamental guiding ideology, thoroughly implementing the guiding principles from the 20th CPC National Congress and the 2nd and 3rd Plenary Sessions of the 20th CPC Central Committee. Resolutely focused on the fundamental goal of "turning losses into profits," the Company follows the "high-end, intelligent, green, and efficient" development direction and upholds operating principles such as "produce per orders, ensure marginal efficiency, secure profitable returns, and guarantee cash flow." We take proactive measures, press forward, and strive to be the first to break through, fully deepening our transformation for survival. Through an "extreme" mindset in execution, Shandong Steel is determined to create new performance, decisively win the battle to return to profitability, and firmly establish a culture of returning value to shareholders. By highlighting value creation, continuously enhancing our investment value and shareholder returns, and achieving better operating and market performance, we aim to secure dignity, respect, and a brighter future. Together, we seek to open up a new chapter of high-quality development and build a modern steel enterprise distinguished by robust Party leadership, efficient governance, leading operational efficiency, powerful growth momentum, a renowned brand image, and substantial well-being for our employees.



## ◆ Company Overview

Shandong Iron and Steel Co., Ltd., headquartered in the Gangcheng District of Jinan, Shandong Province, is a state-controlled large-scale integrated steel enterprise. In December 2011, SISG's two listed steel companies—Jinan Iron and Steel Company Limited (Jigang) and Laiwu Steel Company Limited (Laigang)—were consolidated into Jinan Iron and Steel Company Limited through a share swap. In February 2012, the company was renamed Shandong Iron and Steel Co., Ltd., and in March, the stock abbreviation was changed to Shandong Steel (stock code: 600022). In December 2023, China Baowu strategically invested in SISG, acquiring a 49% equity stake. Meanwhile, Baoshan Iron & Steel Co., Ltd. (Baosteel) acquired a 48.6139% stake in Shandong Iron & Steel Rizhao Co., Ltd., initiating a dual-participation ("Double Participation") operating model.

Shandong Steel has a complete production process system covering coking, raw materials processing, sintering, pelletizing, ironmaking, steelmaking, and rolling, with an overall high level of equipment. Key facilities include two 5,100 m<sup>3</sup> blast furnaces, one 3,800 m<sup>3</sup> blast furnace, four 210-ton converters, two 4,300 mm plate production lines, one 3,500 mm steckel mill, one 2,050 mm hot rolling line, one 2,030 mm cold rolling line, and production lines for medium and large-sized special steel bars and H-beams—all of which are at the forefront of the domestic industry. Currently, Shandong Steel operates two major production bases: the Steel City Base in Jinan and the Rizhao High-end Steel Production Base on the coast (collectively referred to as the Rizhao Base), with a total crude steel production capacity of about 15.8 million tonnes.

Shandong Steel actively promotes informationization, intelligent technologies, and greener production, upgrading and revamping traditional steel operations. We make full use of 5G, the industrial Internet, artificial intelligence, and other advanced technologies to accelerate the transition to intelligent manufacturing. This includes realizing automatic control over the entire converter steelmaking process via smart systems, remote operation and maintenance, industrial robots, and other IT applications—facilitating deeper integration of industrial development with corporate governance. The Company adheres to the concept of developing a circular economy alongside technological energy conservation and emissions reduction. Through continuous innovation, we further enhance structural, technological, and managerial energy saving, deepen hierarchical and circular resource utilization, and have achieved remarkable results in energy conservation, emissions reduction, and circular economy initiatives. Our key operating units have successively received multiple honors from relevant ministries and industry associations, including "National Environment-friendly Enterprise," "National Greening Model Unit," "National Pilot Demonstration Enterprise of Promoting Energy Conservation and Emission Reduction through the Integration of Informatization and Industrialization," "National Top Ten Enterprises for Comprehensive Utilization of Resources," "China Iron and Steel Industry Clean Production and Environment-friendly Enterprise," and "Green Factory." We are also among the first batch of national pilot enterprises for the circular economy, a national water-saving benchmarking enterprise, one of the first "double-carbon" best practice energy-efficiency benchmarking demonstration plant cultivation enterprises recognized by the China Iron and Steel Association, and a Grade-A Environmental Performance Enterprise (FullScope) in Shandong Province.



## ◆ Multiple Products

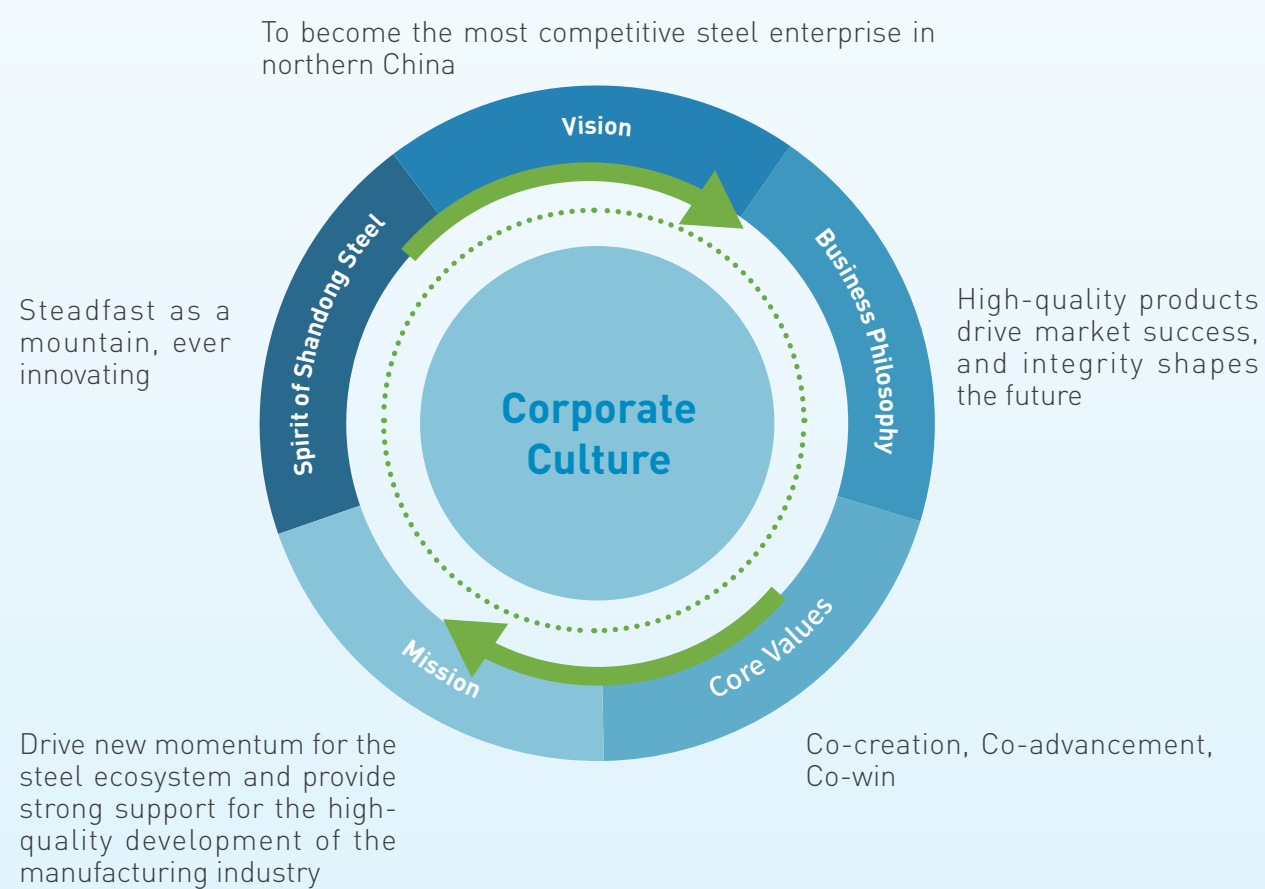
Driven by scientific and technological innovation, Shandong Steel is committed to delivering efficient, integrated solutions for iron and steel materials. We continuously strengthen the upgrading and innovation of these materials, building a product portfolio encompassing five main categories—beams, plates, hot and cold rolled products, special steel products, and rebar—thus realizing diversified development. As an important steel production base in China, the Company's products are characterized by high strength, high-tech, and environmental friendliness, and have won numerous national and industry awards. We have successfully developed high-performance products such as anti-large deformation pipeline steel and hot-rolled dual-phase steel for automobiles, filling significant gaps in the steel industry. Our products are widely used in automobiles, petroleum, railroads, highways, bridges, construction, electric power, machinery, shipbuilding, household appliances, and other fields, and are exported to dozens of overseas countries and regions.





## Exploring Shandong Steel

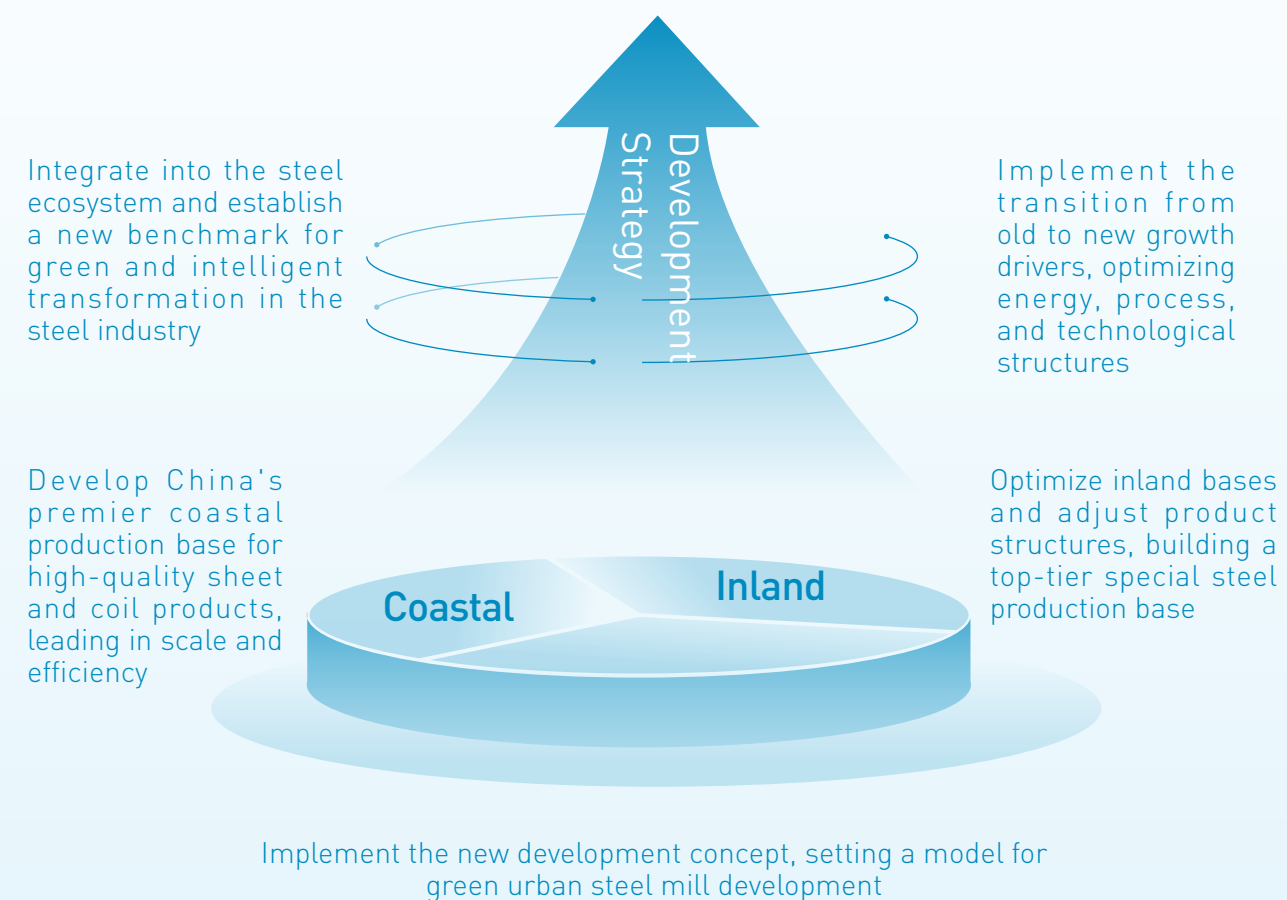
Shandong Steel upholds its founding mission of serving and strengthening the nation through steelmaking. Rooted in Shandong, we extend our reach across China and beyond, standing at the forefront of industry transformation. In a dynamic market environment, the Company has turned crises into opportunities, steadily advancing while embracing reform and innovation. By actively pioneering a new path of green, intelligent, and low-carbon development, we have forged a high-quality development pathway that aligns with the trends of the times, reflects our operational realities, and embodies innovation and vitality.



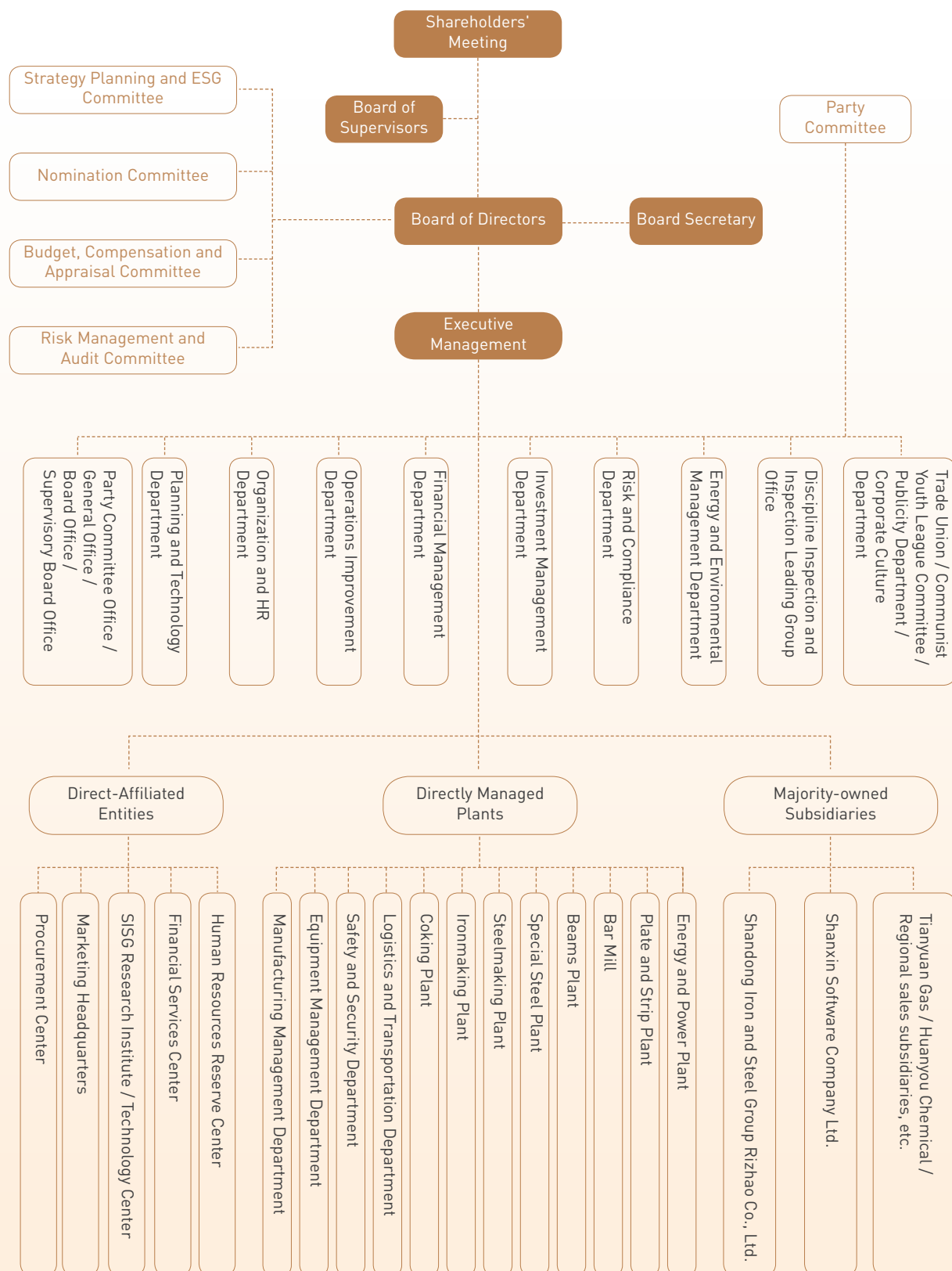
## Company Milestones



## Development Strategy



Organizational Structure



Recognition and Honors

ESG Rating

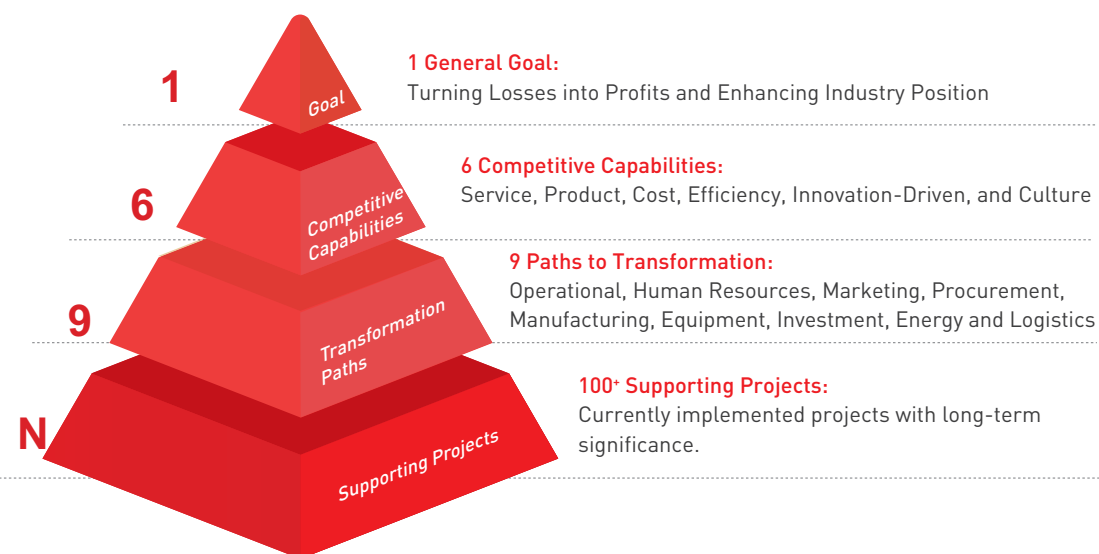
- Wind ESG Rating: A
- Sino-Securities Index ESG Rating: AA

Awards and Honors

- 2024 Excellent Practice Case of the Board of Directors of Listed Companies
- Top 20 in Governance at the 2nd Guoxin Cup ESG Golden Bull Awards
- AAA-Level Enterprise for Enterprise's Development Index of Steel(EDIS)
- 2024 ESG AAA-Level Enterprise among Chinese Steel Enterprises
- Among the First Batch of "Double-Carbon" Best-Practice Energy-Efficiency Benchmarking Demonstration Plants Recognized by the China Iron and Steel Association (CISA)
- National Pilot Demonstration Enterprise for Promoting Energy Conservation and Emission Reduction through the Integration of Informatization and Industrialization
- National Top Ten Enterprises for Comprehensive Utilization of Resources
- Clean Production and Environment-Friendly Enterprise in China's Iron and Steel Industry



In 2024, facing a complex and volatile market environment, Shandong Steel embraced a spirit of self-reform and implemented the "1+6+N" transformation framework to pursue survival through change. The Company coordinated management upgrades at both the Steel City and Rizhao bases, with a strong focus on driving the fundamental transformation of the Steel City base. Through systematic reforms, Shandong Steel achieved a comprehensive shift toward modernization, intelligence, and green development, embarking on a new journey toward survival, strength, and sustainable growth.



## Proposition and Construction of the Change-for-Survival System

Confronted with the severe challenges of a long cycle, production reduction, and industrial restructuring in the steel sector, we introduced a managerial theme of "change for survival" in the first half of 2024. By holding management seminars, the Company achieved consensus throughout the organization and established the "1+6+9+N" change-for-survival system, centered on "1 overall goal, 6 competitive capabilities, 9 change paths, and N supporting projects."

### One General Goal Turning Losses into Profits and Enhancing Industry Position

Shandong Steel regards turning losses into profits as the primary goal in its effort to survive through transformation, striving to attain profitability and boost its industry position via managerial reform and cost optimization. This goal not only reflects the Company's keen insights into the current market environment but also demonstrates our unwavering confidence in future development.

### Six Competitive Capabilities Bolstering Core Competitiveness in All Aspects

To fulfill the overall goal of turning losses into profits, the Company focuses on enhancing six competitive capabilities—service, product, cost, efficiency, innovation, and culture. By centering on the key elements within these capabilities and taking multiple measures, we continually strengthen our comprehensive core competitiveness.

#### Service Upgrading

Establish a new service system featuring stable quality, timely delivery, in-depth coordination, and high user satisfaction.

#### Product Optimization

Concentrate on core products like structural steel, special steel, and plate, aiming to build China's leading brand and secure a top position in the industry.

#### Cost Control

Achieve lower production costs and improved profitability through procurement synergy and manufacturing enhancement.

#### Efficiency Enhancement

Implement centralized, consistent management and focus on producing items with the highest market share and technical standards, thereby maximizing production efficiency and labor productivity.

#### Innovation-Driven

Strengthen management innovation, technological innovation, and company-wide innovation to expand influence and bolster value creation across the organization.

#### Cultural Development

Carry forward Shandong Steel's heritage of hard work and fortitude, deepening the construction of an enterprise culture characterized by strong execution, continuous learning, and lean management.

### Nine Paths to Transformation Concrete Measures for Tangible Results

To deepen the change-for-survival system, the Company has defined nine transformation paths—operations, human resources, marketing, procurement, manufacturing, equipment, investment, energy, and logistics. By breaking these paths down into detailed tasks and refining relevant measures, we convert the capabilities of the change-for-survival system into genuine value creation.

- Operational Reform** — Restructure the organizational framework, align supporting systems, promote business-finance integration, and enhance decision-making and value creation.
- Human Resources Reform** — Optimize staffing, expand external employment, perfect employee development channels, and reform the compensation system.
- Marketing Reform** — Adopt a user-centric approach, innovate marketing service mechanisms, refine processing and distribution models, and boost user satisfaction.
- Procurement Reform** — Integrate regional resource channels, build efficient procurement mechanisms, and ensure a high-quality supply of bulk raw materials and spare parts.
- Manufacturing Reform** — Reinforce optimal production organization and best-process management, enhancing quality stability and contract fulfillment.
- Equipment Reform** — Integrate Baosteel's new equipment management model, establishing an all-staff, all-system, high-efficiency equipment management framework.
- Investment Reform** — Focus on upgrading structural steel and special steel products, reconfigure responsibilities and workflows, and develop a centralized, efficient investment management model.
- Energy Reform** — Promote efficient energy generation, transmission, transformation, and utilization to reduce costs and elevate energy efficiency.
- Logistics Reform** — Strengthen supply assurance, cost reduction, and efficiency improvements within the logistics system, thus bolstering the Company's service, efficiency, and cost-management capabilities.

### N Supporting Projects Practical Levers for Concrete Outcomes

To implement the nine transformation paths in detail, Shandong Steel has launched N supporting projects. Adhering to rigorous task objectives, project-based targets, and comprehensive project listings—alongside rolling advancement and dynamic management—these initiatives ensure effective on-the-ground execution. By 2024, 117 such projects had been initiated, spanning management reform, cost reduction, and efficiency enhancement, thus becoming pivotal drivers for applying the change-for-survival system.

Looking ahead, we will persist in reinforcing and propelling the change-for-survival system, firmly tracking and delivering concrete results through supporting projects. By leveraging synergies with Baoshan Iron & Steel Co., Ltd. (Baosteel), the Company will conduct a comprehensive review of its current weaknesses in efficiency enhancement, quality stability, product operations, procurement resources, and cost reduction. Key collaborative projects will be identified to drive High-quality Development and embark on a new journey for Shandong Steel's future success.



Shandong steel has always prioritized environmental protection and is committed to forging a new paradigm of harmonious coexistence between industrial tourism destinations and urban environments. By successfully creating the National AAA Tourist Attraction as a model, and using iron and steel sightseeing factories as a blueprint, the Company vividly demonstrates the process of transforming iron ore into steel, showcases the charm of industrial civilization, and serves as a bridge connecting modern and traditional steel mills. It has thus become a standard textbook of "how steel is made" in the new era.

Green transformation at the Steel City Base. The Steel City Base, located in the Gangcheng District of Jinan, is a place historically dedicated to steelmaking, carrying both the legacy of industrial history and the hope for a sustainable future. Since the initiation of projects aimed at replacing old growth drivers with new ones, the Steel City Base has successfully established a highly efficient production system characterized by large-scale equipment, optimized resource utilization, and reduced energy consumption. Notably, the intelligent material yard, which is Shandong Province's largest membrane-structured raw materials shed, covers an area of **280,000** square meters. Equipped with advanced intelligent equipment operating around the clock, it achieves automated, intelligent batching. Additionally, by utilizing the Eagle Eye monitoring system and ultra-fine mist dust suppression technology, the Base effectively reduces dust emissions by **4,760** tonnes annually. These initiatives not only ensure cleaner production processes and significantly reduced energy consumption but have also notably improved the company's environmental performance.

To enhance greening and landscaping in the production area, the Steel City Base adopted a multi-layered planting structure combining trees with diverse shrubs and ground covers, greatly enriching the landscape's diversity. Through upgrading approximately **100,000** square meters of existing green space and newly adding **87,000** square meters of greenery, the plant environment has substantially improved. Consequently, the Steel City Base has received recognitions such as the "National Green Development Benchmark Enterprise in the Steel Industry" and "Advanced Metallurgical Greening Unit."



Greener future at the Rizhao Base. As Shandong Province's first National AAA Tourist Attraction in the steel sector, the Rizhao Base creatively established a "steel + ecology" educational tourism route, turning industrial tourism into a fashionable new city attraction. Centered around Songhuwan Park, the scenic area uniquely integrates steel production with coastal ecological landscapes, creating China's first seaside park affiliated with a steel enterprise, attracting over **100,000** visitors annually.

The Rizhao Base has fully embedded green, low-carbon practices into its core business philosophy. Since 2024, it has achieved historically best levels in comprehensive energy consumption per tonne of steel, carbon dioxide emissions per tonne of steel, residual energy recovery per tonne of steel, and gas recycling utilization- solidifying its leading position within the industry. These achievements further reinforce the Base's confidence, determination, and capability to pursue high-quality green and low-carbon development. Meanwhile, the Rizhao Base has successfully passed the authoritative verification and public disclosure as one of the China Iron and Steel Association's "Best Practice Benchmark Demonstration Enterprises in Energy Efficiency for Dual Carbon Goals," marking a milestone breakthrough in its green and low-carbon transformation efforts.



Shandong Steel regards digitalization, intelligent manufacturing, and green development as key engines to continuously drive corporate transformation and high-quality growth. Since releasing the outline for “*Digital and Intelligent Shandong Iron and Steel*” in 2020, the Company has benchmarked against industry leaders and actively developed a comprehensive framework for IT and intelligent manufacturing. At the same time, we have vigorously promoted the intelligentization of production lines, significantly boosting automation levels through “machine replacement” and other innovative projects. In 2024, backed by the synergistic support of Baosteel, the Company will launch a series of IT upgrade and renovation initiatives, further accelerating our digital and intelligent transformation.

### Construction of Key Application Scenarios at Steel City Base (2024)



#### Centralized Control Center Construction

Following the “1+N” strategy—one core control center plus multiple specialized control centers—Steel City Base has completed projects such as the Intelligent Control Center and the Coking Centralized Control Center. By centrally managing multiple processes, labor productivity and operational synergy have markedly improved, effectively realizing the goals of “factory intelligence, management informatization, and manufacturing refinement.”



#### Production Line Robots

The coke plant’s basement now features a newly installed robot inspection system. Flue-inspection robots run along a U-shaped track in the coke oven’s waste-gas channel, while additional robots traverse rails along the gas-exchange valves in the basement, achieving an unmanned, intelligent inspection process.



#### 5G Application

The raw material yard at the ironmaking plant has undergone an environmental enclosure upgrade and intelligent transformation, set up a 5G network, built an intelligent control center and collaboration platform, and developed multiple smart applications (e.g., intelligent O&M, smart video, intelligent scheduling, inventory management, logistics navigation, automated reporting, and a management cockpit). Nine large vehicles have also been upgraded for unmanned operation and multi-view remote control.

### Construction of Key Application Scenarios at Rizhao Base (2024)



#### Intelligent Factory Construction

Focusing on nine major projects—regional centralized control, digital workshop upgrades, and robot applications—covering the intelligent transformation of medium and heavy plate heat treatment, online intelligent analysis in coking, centralized refining-process control, deployment of automatic sampling robots in the 4300mm Wide and Heavy Plate Production Line, and implementation of centralized control systems. These efforts aim to enhance coordination across the production chain, improve manufacturing efficiency and management effectiveness, and build an efficient, intelligent factory.



#### Intelligent Manufacturing Planning

Rizhao Base has formulated an intelligent manufacturing development plan for 2025-2030, spanning seven major processes, five specialized areas, and relevant infrastructure. This plan includes 230 projects, setting clear 6-year development goals and directions.



#### AI Exploration

By benchmarking against advanced steel enterprises, Rizhao Base has established an L2 model research team, completed 17 AI-related supporting projects, and simultaneously cultivated a robust AI talent pipeline.

We actively promote intelligent manufacturing, focusing on both unmanned and low-manpower initiatives, accelerating centralized control center construction, and elevating working procedure intelligence and labor productivity all-round. The annual growth rate of robot applications has exceeded 170%, while the Company’s intelligent-manufacturing performance score in the steel industry has risen by 36.35%.

### Case Steel City Base Intelligent Control Center Goes Online—A New Chapter in Energy Management

In December 2024, the first phase of the energy and power system at the Company’s Jinan Steel City Base Intelligent Control Center officially went online, marking a major leap from the previous “one-post, one-stop” management model toward an era of intensive and intelligent administration. Supported by features such as data-driven analytics and automated reporting, Steel City Base is poised to reach new heights in energy utilization efficiency, providing robust support for our green and low-carbon development goals.



### Case Shanxin Software Powers the Information Industry and Explores New Avenues of Value Creation

Shandong Steel is actively expanding into new frontiers of the information industry, creating new avenues for value creation. Shanxin Software Company Ltd. (“Shanxin Software”), a subsidiary of Shandong Steel, specializes in intelligent manufacturing and big data applications, developing advanced intelligent solutions to facilitate the integration of next-generation information technologies into industrial operations, thereby driving digital transformation in the steel and other industries.

Shanxin Software maintains robust technological capabilities, holding 37 provincial- and ministerial-level awards, 106 patents, and 105 software copyrights. The company has achieved international certifications such as CMMI Level 3 and possesses multiple professional qualifications, including information system integration, consultation services for IT and industrial integration, security engineering, and electronics and intelligent engineering contracting. To date, Shanxin Software has implemented over 750 automation production lines and information systems across various sectors, including steel, nonferrous metals, chemical engineering, machinery, and energy conservation and environmental protection, serving clients in more than 20 provinces, municipalities, and autonomous regions across China. Additionally, the company has successfully expanded into international markets such as India and Poland, demonstrating strong global competitiveness.

Guided by its mission to “Become a leader in industrial software,” Shanxin Software is accelerating its digital industry layout, providing essential support for the intelligent upgrading of the manufacturing sector.





01

Governance

## Safeguarding Development and Strengthening the Foundation for Modern Governance

Good governance is like sunshine: it fills every corner of an organization with warmth and vitality, allowing every participant to feel fairness and hope.

—Peter Drucker, *The Practice of Management*



- ◆ Upholding Our Original Aspiration and Consolidating the Party-Building Foundation
- ◆ Standardize Operations and Optimize the Governance System
- ◆ Holistic Planning to Deepen ESG Management
- ◆ Staying Proactive to Reinforce Risk Control
- ◆ Advocating Virtue, Fulfilling Commitments, and Upholding Business Ethics
- ◆ Operating with Integrity and Optimizing Tax Management





## Safeguarding Development and Strengthening the Foundation for Modern Governance

Good corporate governance is the cornerstone for sustainable development. Shandong Steel continuously refines its governance system, strengthens open and transparent disclosures, enhances investor communication, firmly practices ESG concepts, improves risk and compliance management effectiveness, and adheres strictly to business ethics—thereby laying a solid basis for stable operations and long-term growth.



## Upholding Our Original Aspiration and Consolidating the Party-Building Foundation

Shandong Steel regards Party leadership as the "root" and "soul" of enterprise development. We follow Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, uphold the "two consistent approaches," and emphasize the "two deep integrations," ensuring our Party Committee provides direction, manages the big picture, and guarantees effective implementation. We integrate Party-building into our core operations, transforming its political advantages into governance and developmental strengths to promote high-quality growth through robust Party building.

### ► Political Leadership

We prioritize political development first, strictly implementing the "First Agenda" learning mechanism to improve political orientation and capacity through the Party's innovative theories. We thoroughly carry out study and practice of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and Party discipline education, thereby strengthening Party members' ideals and faith, solidifying the "Four Consciousness," and resolutely upholding the "Two Upholds," making a clear political stance an essential hallmark of the Company.

### ► Strong Ideological Foundation

We strictly enforce the Party Committee's theoretical study group system, unwaveringly applying Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era to consolidate our political convictions. We also built a provincial theory education base and a team of skilled lecturers to align situational and task-based education with the corporate mission—galvanizing employees toward transformation and responsibility. Additionally, the Company undertakes a broad range of cultural events with tangible results. In recognition, we were named an "Excellent Ideological and Political Work Unit in the National Metallurgical Industry (2023–2024)."



### Case: Implementing a Five-Year Party Member Education and Training Initiative

The Company launched a "Five-Year Action Plan" for educating and training Party members, annually holding Party branch secretary classes and Party-member demonstration classes, organizing "Let Me Deliver the Party Lecture," and establishing a "Four Lectures" system (secretary-led, role-model-based, hero-demonstrated, member-initiated). In 2024, we ran 98 centralized training sessions (7,700+ participants), arranged 87 Party Committee theory-group studies, 81 special training classes, 1,170 "Three Meetings and One Class," 556 themed Party Days, and 3,300+ counseling and discussion activities—significantly boosting overall Party-member quality.




### ► Consolidating the System

Shandong Steel has established and refined a set of Party-building systems, clearly defining the scope of "Three Critical and One Significant" matters. We require prior Party Committee deliberation for key decisions, manage important matters via checklists, and strictly implement major-matter reporting. Moreover, we fully apply "Party-building inclusion in the Articles of Incorporation" across the Company and its subsidiaries—clarifying the Party organization's responsibilities, institutional setup, operational mechanisms, and fundamental guarantees—thus solidifying the Party's lawful position in the corporate governance structure.

### ► Strengthening the Organization

We attach great importance to grassroots Party organization building, refining an integrated, well-structured system with strong execution. By expanding the "Five Hearts and Four Transformations" Party-building brand, the Company deeply aligns Party-building with production and operations, forming a "one Party Committee, one distinctive feature; one branch, one brand" pattern. By year-end 2024, we had nurtured 87 outstanding Party-building brands, with 80.8% of Party branches rated four-star or above. The Company earned an "Outstanding Party-Building Award" in the listed companies' "Golden Quality" selection, and the "Five-Heart Benefiting Everyone" brand at Rizhao Base was honored by Shandong SASAC as an exemplary Party-building brand among provincial enterprises.

 **87 outstanding Party-building brands**  
**80.8% of Party branches rated four-star or above**  
**"Outstanding Party-building Award"**  
**Honored by Shandong SASAC as an exemplary Party-Building brand among provincial enterprises**

1 Five Hearts and Four Transformations: The concept of Five Hearts and Four Transformations refers to five "heart-centered" projects—the Core Project, Original Aspiration Project, Unity Project, People's Support Project, and Integrity Project—and four "transformations" in Party building focused on scientific, systematic, intelligent, and continuously innovative practices.



## Case: Advancing "1+X" Party-Building Co-Construction



We extensively organize Party member responsibility zones, pioneer posts, commando teams, research-topic sign-ups, and problem-solving actions—pushing forward "1+X" co-construction of Party-building. This fosters synergy between Party-building and core tasks, fully leveraging grassroots Party organizations' battlefortress role and Party members' exemplary status. By end-2024, the Company had established 512 Party-member pioneer posts, 442 responsibility zones, 264 commando teams, 278 specialized research topics, and 325 pledged index items, solving 306 production and technical challenges.

## Fostering Work Style

The Company's Party Committee prioritizes strengthening work style, accelerating quality, speed, and efficiency across operations—thus providing powerful impetus and security for high-quality development. We implemented the "Forging Steel-Like Work Style, Carrying Out the New Development Strategy" Education and Practice Program, promoting a "High, Strict, Detailed, Real, Fast" ethos for all employees, and we continue "Four Rectifications, Four Improvements" and "Ten Discards, Ten Establishments." In June 2024, the Company's Party Committee released an *Execution Culture Construction Implementation Plan*, shaping an execution culture of "execute resolutely without hesitation, rapidly without procrastination, and firmly without wavering."

## Party Governance

Shandong Steel thoroughly enforces the comprehensive strict governance of the Party, establishing responsibility lists at each level, building a "four-responsibility" collaborative mechanism, and consistently reinforcing accountability for Party oversight. We continue to deepen a "grand supervision" framework—covering joint oversight, information sharing, accountability initiation, and performance appraisal—enabling precise, effective political oversight, comprehensive inspection, special targeted oversight, and progressive on-site supervision. We also focus on rectifying problems in key areas, firmly implement signed integrity agreements, and advance a three-year plan for building a new-era integrity culture. Consequently, the Company's political environment steadily improves.



## Standardizing Operations and Optimizing the Governance System

Shandong Steel upholds the principles of compliance first, proactive action, honesty, and trustworthiness to effectively safeguard shareholder interests and continuously advance corporate value creation. We strictly abide by the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Code of Governance for Listed Companies*, the *Rules Governing the Listing of Stocks on the Shanghai Stock Exchange*, the *Self-Regulatory Guidelines for Listed Companies of the Shanghai Stock Exchange (No. 1)—Standardized Operation*, and other relevant regulations, as well as the *Articles of Association of Shandong Iron and Steel Co., Ltd.* We have established a governance structure characterized by effective checks and balances and a standardized internal control system, fully protecting the legitimate rights and interests of the Company and all stakeholders, and promoting healthy, stable, and sustainable development.

## Improving the Governance System

Shandong Steel adheres to the "two consistent approaches," consolidating the fruits of the modern enterprise system demonstration project, and continuously refining a governance structure with clear rights/responsibilities, coordinated operations, and effective checks and balances. We have built a comprehensive, scientifically standardized, and efficient institutional framework ensuring that the Shareholders' Meeting, Board of Directors, Supervisory Committee, and managerial layer each have distinct powers and responsibilities while coordinating and fulfilling their duties.



• **Shareholders' Meeting:** This is the Company's highest authority, exercising its powers per the law. We treat all shareholders equally and fully safeguard their legitimate interests. In 2024, the Company convened **4** Shareholders' Meetings and reviewed **20** proposals. Each meeting complied fully with the *Rules for Shareholders' Meetings of Listed Companies* and the Company's Articles of Association, combining on-site and online voting while inviting minority investors to attend in person. Proposals relating to minority shareholders' rights were voted upon and tallied separately.



• **Board of Directors:** As the Company's decision-making body, the Board consists of the Strategic Planning and ESG Committee, Nomination Committee, Risk Management and Audit Committee, and Budget, Compensation, and Evaluation Committee. Except for the Strategic Planning and ESG Committee, the other three committees are chaired by independent directors, who form a majority of these committees; notably, the Budget, Compensation, and Evaluation Committee is entirely composed of independent directors. In 2024, we held **16** Board meetings considering **65** proposals, and organized **3** Strategic Planning and ESG Committee meetings, **8** Nomination Committee meetings, **7** Risk Management and Audit Committee meetings, and **2** Budget, Compensation, and Evaluation Committee meetings.



• **Board of Supervisors:** This committee serves as the Company's supervisory body, overseeing finances and supervising the legality of directors' and senior managers' duties, independently exercising its authority and promoting standardized operations. As of end-2024, the Supervisory Committee had three members (including one employee supervisor). In 2024, the Company convened **7** Supervisory Committee meetings, reviewing **16** proposals.



• **Management:** The management team handles daily operations and administration. It clarifies Board decisions, assigns responsibilities, refines measures, ensures implementation, and strengthens tracking of Board proposals, enabling effective execution. In 2024, we revised and refined *Rules of the General Manager's Office Meeting* and *List of Business Management Decision Matters*, deepened the General Manager's reporting mechanism to the Board, held **17** General Manager Office meetings, and tackled **147** topics—fully executing all **65** Board resolutions.

### Board Diversity

Shandong Steel actively advances Board diversity, aligned with the Company's development model and business needs. We comprehensively consider gender, age, education, experience, professional expertise, etc., to ensure diversity, independence, and compliance. By the end of 2024, the Company's Board comprised nine directors—1 female director, 1 employee director, 5 executive directors (specialized in metallurgy, business administration, economics, law, statistics), and four independent directors (expertise in metallurgy, automation, accounting, applied economics, etc.).

In 2024, the Company further optimized the composition of its Board of Directors and Supervisory Committee, completing re-elections and appointing new senior executives, including an employee director and a female director, thereby reinforcing governance for deeper reforms and high-quality growth. We continuously track the latest regulatory rules, updating our system in a timely manner to keep governance lawful, compliant, and effective. During the reporting period, the Company amended the *Articles of Association* twice, and formulated new systems including the *ESG Work Management System* and the *Independent Directors' Special Meeting System*. Additionally, the Company revised a series of existing systems, such as *Independent Directors' Work System*, *Working Rules of the Board's Risk Management and Audit Committee*, *Management System for Reporting Significant Information*, *Working Rules for the Board's Risk Management & Audit Committee*, *Major Information Reporting Management System*, *Board of Directors' Budget Management Policy*, and *Working Rules for the Board Secretary*. Furthermore, the Company compiled and finalized the *List of Business Management Decision Matters* to provide a comprehensive regulatory framework, ensuring standardized and efficient corporate operations.



## ▶ Strengthening Market Value Management

### • Disclosing Information in Compliance with the Law

Shandong Steel strictly adheres to laws, regulations, and listing provisions for listed companies, continuously perfecting its information-disclosure regime. We revised policies such as the *Management System for Information Disclosure Affairs*, *Management System for Reporting Significant Information*, *Working Rules for the Board Secretary*, and *Information Disclosure Management System for Subsidiaries and Entrusted Companies*, building a robust, sound, and well-structured system to ensure truthful, accurate, complete, fair, and timely. In 2024, the Company disclosed 131 announcements in a standardized manner on various resolutions by the Board, Supervisory Committee, Shareholders' Meeting, as well as performance forecasts.

### • Promoting Share Repurchases and Additional Holding

|  |   |
|--|---|
| <div>Share Repurchase</div> <p>Since February 5, 2024, the Company has implemented share repurchase for 12 months with an amount of RMB 200-400 million yuan (inclusive). As of December 31, 2024, we repurchased 96,170,452 shares (0.8989% of total share capital) for RMB 120,385,235.92 (excluding stamp duty, commissions, etc.).</p> | <div>Increasing Shareholding</div> <p>The Company actively coordinated with its controlling shareholder, SISG ("the Group"), which initiated a 12-month share increase of RMB 500 million–1 billion on June 13, 2024. By December 31, 2024, SISG had accumulated 389,627,601 shares of the Company, representing 3.64% of total capital, at a total cost of RMB 485,977,790.98 (excluding taxes, fees, etc.).</p> |
|--|---|

|   |                                 |
|---|---------------------------------|
| Repurchased <b>96,170,452</b> shares                    | <b>0.8989%</b> of total capital |
| SISG had purchased additional <b>389,627,601</b> shares | <b>3.64%</b> of total capital   |

### • Strengthening Investor Relations Management

Shandong Steel consistently reinforces investor relations, expands value communication, and fosters market recognition. Directors and senior management actively engage investors and other stakeholders, listening to feedback and responding promptly. Meanwhile, we broaden communication via Shareholders' Meetings, performance briefings, site visits, hotlines, SSE e-Interaction, and official WeChat, enhancing both breadth and depth. In 2024, the Company hosted 20 performance or investor exchange meetings (both online and offline) with 74 institutions (118 participants), covering topics like corporate strategy, market outlook, operational measures, double participation<sup>2</sup> synergy progress, procurement, marketing, pig iron costs, product benchmarking, etc. We replied to 104 investor queries on SSE e-Interaction and handled over 170 investor calls.

20 Performance or investor exchange meetings

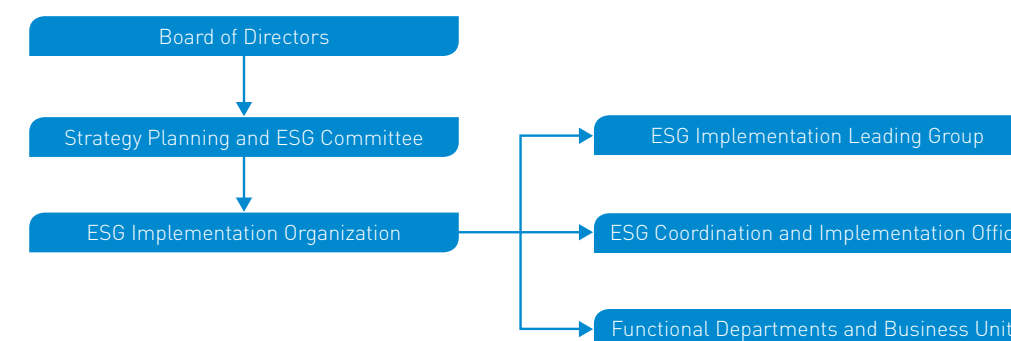
Replied to **104** investor queries

Handled over **170** investor calls

## Integrated Planning and Deepening ESG Management

### ▶ ESG Governance Framework

Shandong Steel regards ESG governance as an integral part of our overall corporate governance, establishing a three-tier ESG governance structure comprising the Board of Directors, the Board's Strategic Planning and ESG Committee, and an ESG promotion organization. By refining ESG's top-level design, we integrate governance, social, and environmental considerations into the Company's strategic planning and major decisions, thereby strongly supporting sustainable development. Among these bodies, the Board of Directors serves as the highest responsible authority for ESG management and information disclosure. The Board's Strategic Planning and ESG Committee researches and guides ESG work; the ESG Promotion Leading Group offers daily supervision and guidance; the ESG Coordination and Promotion Office organizes day-to-day ESG operations; and functional departments and business units act as the executors of ESG tasks. For detailed responsibilities, please refer to the Company's Announcement on the *Proposal of ESG Governance Structure Construction* (Announcement No. 2022-047).



ESG Governance Framework

<sup>2</sup> Double participation: China Baowu made a strategic investment in SISG, while Baosteel acquired a stake in SISG Rizhao Company.

Shandong Steel has issued the *Working Rules for the Strategic Planning and ESG Committee of the Board of Directors*, the *ESG Work Management System*, and related systems to optimize internal management mechanisms, clarifying the ESG governance concept, responsibilities, and working principles. The company has closely linked executive compensation to ESG factors such as safety, technological innovation, and risk management, further strengthening executives' sense of responsibility in the ESG field.

To deepen understanding and practice of cutting-edge ESG theories, we hold ESG-related training sessions, participate in ESG standard-setting and peer exchanges. In 2024, the Company participated in developing two industry group standards: *Guidelines for Environmental, Social, and Governance(ESG) Special Reports of Iron and Steel Enterprises* and *Guidelines for Environmental, Social, and Governance(ESG) Assessment of Iron and Steel Enterprises*, organized by the China Steel Development Research Institute, underscoring the Company's leadership in driving the steel industry's green transformation and sustainable development. Additionally, we conducted an ESG governance training session attended by management and mid-level or above leaders at the Steel City Base and Rizhao Base. The program deepened participants' understanding of ESG principles, further strengthening the Company's sustainability capabilities.

Looking ahead, Shandong Steel will further enhance ESG management by benchmarking the practice of sustainable development management of first-class enterprises at home and abroad, improving relevant systems and metrics, and establishing an ESG report review and enhancement mechanism that better leverages reporting to promote management improvements. We will also proactively meet stakeholder concerns, continually demonstrating our "non-financial statement" credentials.



• In 2024 Named among the "Top 20 in Governance" at the second Guoxin Cup ESG Golden Bull Awards  
• Rated a AAA-level ESG enterprise in China's iron and steel industry

Win.d • Wind ESG Rating: A

Sino-Securities Index Information Service (Shanghai) Co.Ltd • Sino-Securities Index ESG Rating: AA

Stakeholder Communication

Shandong Steel views engagement with stakeholders as a vital part of ESG management, dedicated to creating enduring value. Guided by honesty, interaction, equality, and transparency, we continuously refine our stakeholder engagement mechanisms and communication channels, establishing both regular and occasional platforms to gather demands and feedback. The Company then takes active measures to respond, ensuring all stakeholder expectations are understood and addressed.

| Stakeholder  | Key Concerns  | Communication Channels and Responses  |
|--|---|---|
| <br>Shareholders & Investors              | <ul style="list-style-type: none"><li>Corporate governance</li><li>ESG governance</li><li>Stakeholder communication</li><li>Economic and financial performance</li><li>Anti-bribery and anti-corruption</li></ul>   | <ul style="list-style-type: none"><li>Shareholders' Meetings</li><li>Information disclosure</li><li>Investor communication sessions</li><li>Performance briefings</li><li>On-site research</li><li>Other investor channels</li></ul>  |
| <br>Employees                             | <ul style="list-style-type: none"><li>Compensation &amp; benefits</li><li>Democratic management</li><li>Employee care &amp; support</li><li>Career development &amp; training</li><li>Occupational health &amp; safety</li></ul>  | <ul style="list-style-type: none"><li>Meetings &amp; training</li><li>Optimizing compensation &amp; benefits</li><li>Enhancing promotion mechanisms</li><li>Trade unions &amp; employee congresses</li><li>Employee assistance</li><li>Rich cultural &amp; sports activities</li><li>Intranet, bulletin boards, WeChat, etc.</li><li>Reporting channels</li></ul> |
| <br>Customers                           | <ul style="list-style-type: none"><li>Product quality and Customer service</li><li>Innovation</li><li>ESG governance</li><li>Green product R&amp;D</li><li>Environmental actions &amp; measures</li><li>Climate change response</li><li>Anti-bribery &amp; corruption</li></ul>                     | <ul style="list-style-type: none"><li>Quality management</li><li>Exchange visits</li><li>Official media platforms</li><li>Customer satisfaction surveys &amp; improvement programs</li><li>"Three Ones" new service model</li><li>QCDVS customized services</li><li>Co-building tech innovation centers</li><li>Customer complaint channels</li></ul>             |
| <br>Suppliers                           | <ul style="list-style-type: none"><li>Materials &amp; packaging</li><li>Supplier management</li><li>Supply chain security</li><li>ESG governance</li><li>Fair treatment for SMEs</li><li>Anti-bribery &amp; corruption</li></ul>  | <ul style="list-style-type: none"><li>Supplier audits/assessments</li><li>Supplier management</li><li>Exchange visits</li><li>Supplier training</li></ul>   |
| <br>Government Departments & Regulators | <ul style="list-style-type: none"><li>Occupational health &amp; safety</li><li>Climate change response</li><li>Environmental management</li><li>Emissions trading</li><li>Green actions &amp; measures</li><li>Anti-bribery &amp; corruption</li><li>Anti-monopoly &amp; fair competition</li></ul> | <ul style="list-style-type: none"><li>Compliance with laws &amp; policies</li><li>Participation in major projects &amp; policy proposals</li><li>Government &amp; regulatory meetings</li><li>Information disclosure</li><li>On-site surveys/inspections</li><li>Energy conservation &amp; pollution control</li></ul>  |
| <br>Community & Public                  | <ul style="list-style-type: none"><li>Social welfare</li><li>Climate change response</li><li>Wastewater discharge</li><li>Clean production</li><li>Air emissions</li><li>Waste disposal</li><li>Green actions &amp; measures</li><li>Stakeholder communication</li></ul>                            | <ul style="list-style-type: none"><li>Public welfare &amp; volunteer activities</li><li>Community dialogue</li><li>Interaction via official media, WeChat, etc.</li></ul>   |
| <br>News Media                          | <ul style="list-style-type: none"><li>Stakeholder engagement</li><li>Climate change response</li><li>Green actions &amp; measures</li><li>Social welfare</li><li>Economic &amp; financial performance</li><li>Anti-bribery &amp; corruption</li></ul>   | <ul style="list-style-type: none"><li>Official media, WeChat, etc.</li><li>Public welfare &amp; volunteer activities</li><li>Energy conservation &amp; pollution control</li><li>Information disclosure</li></ul>   |

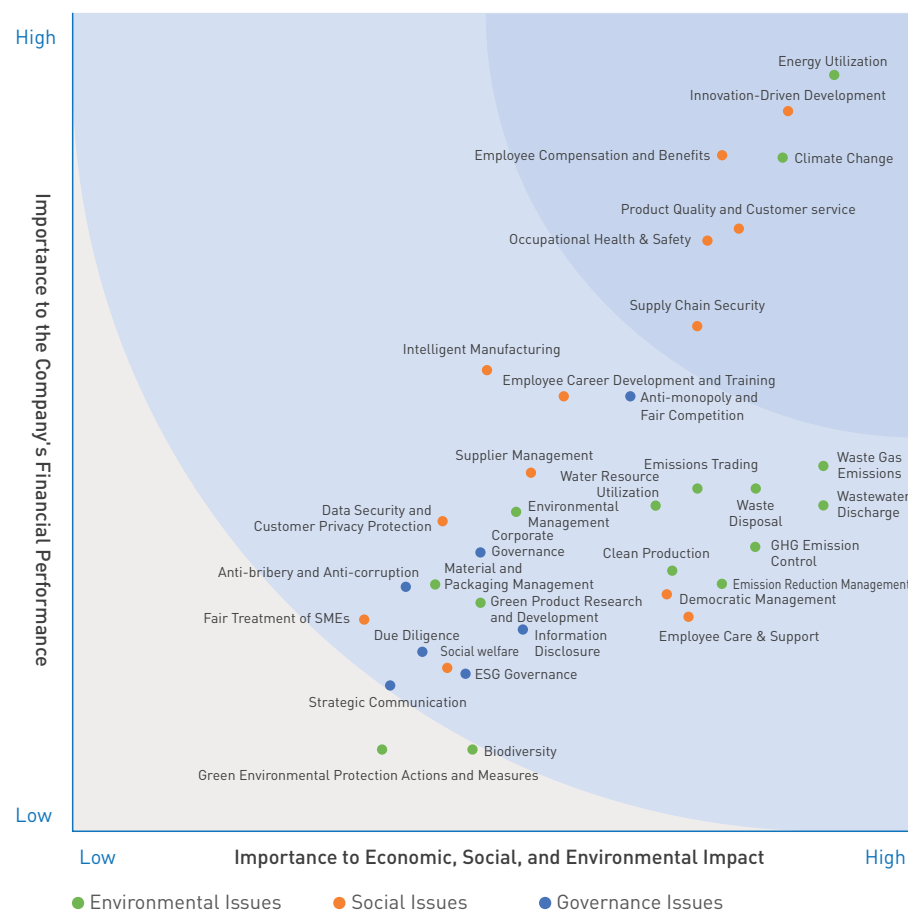


## Double Materiality Analysis

Shandong Steel adopts a "double materiality" assessment principle-considering both the impact materiality and the financial materiality of ESG issues-conducting annual materiality assessments and highlighting dual-materiality topics in this Report to address stakeholder expectations.

|                             |  |
|-----------------------------|--|
| Issues Screening            | We reference the Shanghai Stock Exchange guidelines, GRI standards, the United Nations Sustainable Development Goals (SDGs), and rating agency requirements, combined with industry policies and peer benchmarking, to compile an issue list. In the current year, the Company preliminarily identified 35 ESG-related issues. |
| Stakeholder Communication   | We distribute surveys and questionnaires among shareholders/investors, employees, customers, suppliers, government and regulatory bodies, communities and the public, and news media, to understand which topics they consider most important.   |
| Issues Assessment           | Taking into account stakeholder concerns and questionnaire feedback-plus both impact and financial significance-we evaluate each topic's influence, risks, and opportunities, and create a materiality analysis matrix.  |
| Validation and Confirmation | Based on the assessment results, the Company confirms highly material issues that require in-depth disclosure in this Report, ensuring all critical ESG concerns are fully covered, and using these as priorities for our ESG efforts.   |

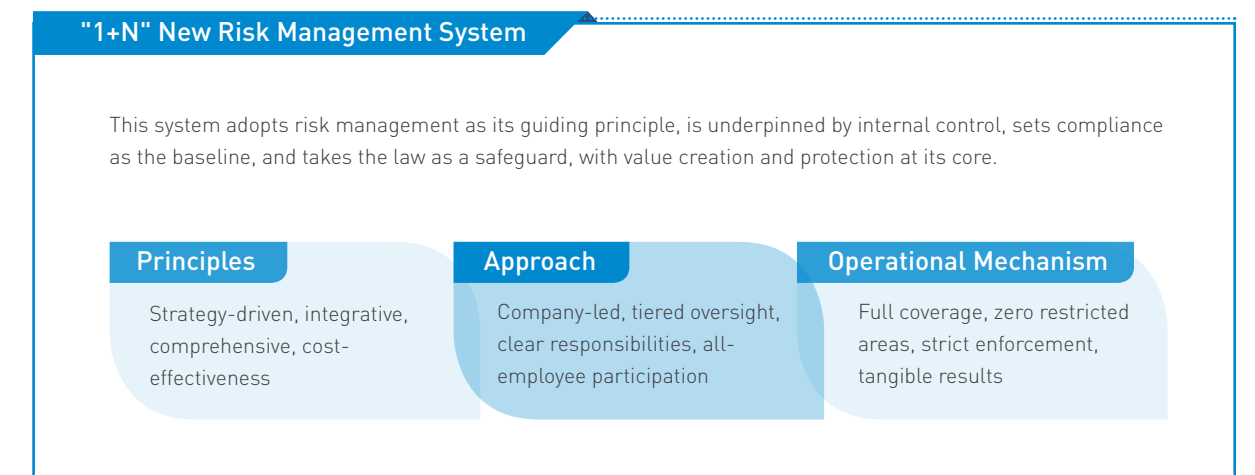
Based on the results of the 2024 Double Materiality Analysis, the Company has identified climate change, employees, and occupational health & safety as topics with both financial materiality and impact materiality. To address these material issues, the Company will comply with the Shanghai Stock Exchange disclosure requirements, covering the following four key dimensions: Governance, Strategy, Impact, Risk and Opportunity Management, and Metrics and Targets. This structured disclosure will demonstrate the Company's management effectiveness in handling these dual-materiality priorities.



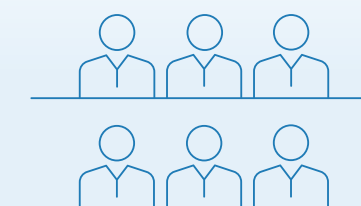
## Taking Precautions and Strengthening Risk Control Management

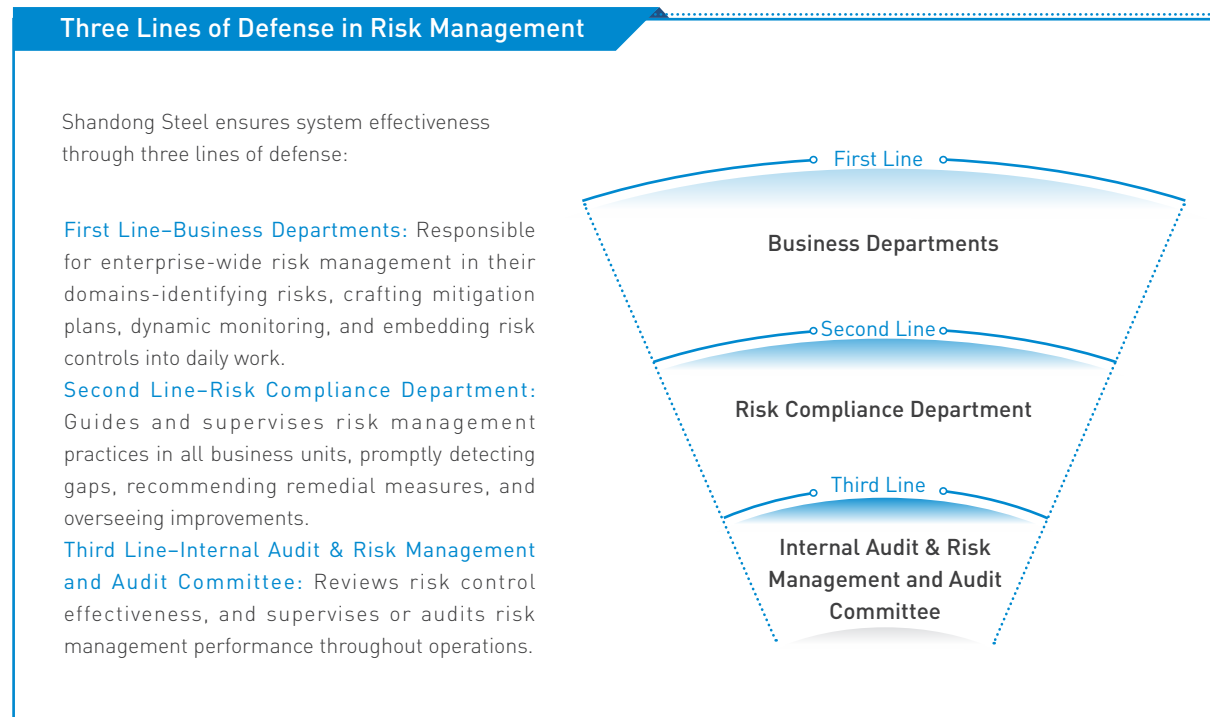
### Risk Management

Shandong Steel following the COSO-ERM framework and ISO 31000 standards, closely aligns risk management with our strategic planning and operational needs. We have developed an innovative, inclusive, integrative, synergistic, and continuously improving "1+N" risk management system, enabling proactive prevention, real-time control, and post-event handling of risks. This system ensures lawful, stable operations and high-quality, sustainable growth. Meanwhile, ESG-related risks-covering environmental protection, intellectual property, employee development, information security, and business-partner oversight- are embedded in our existing risk framework. The Board's Strategic Planning and ESG Committee identifies and supervises ESG risks and opportunities with a significant business impact on the Company, guiding management in implementing appropriate responses.

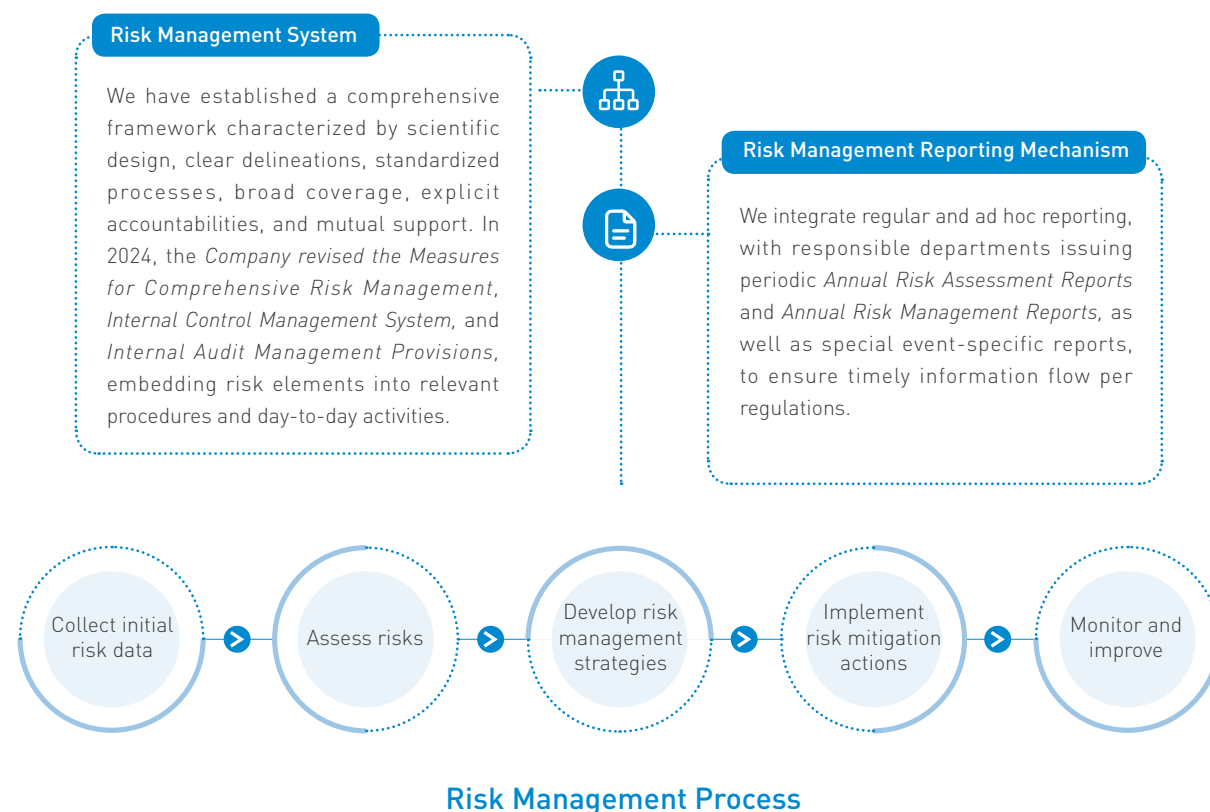


**Risk Management Structure:** Shandong Steel has established a standardized corporate governance framework, clarifying the roles and responsibilities of the risk management function, relevant departments, and each unit. From top to bottom-Party Committee, Board of Directors, Risk Management and Audit Committee, General Manager/managerial level, Risk Compliance Department, and each risk business unit-we maintain an integrated system with distinct responsibilities, regulated processes, hierarchical management, and coordinated synergy.





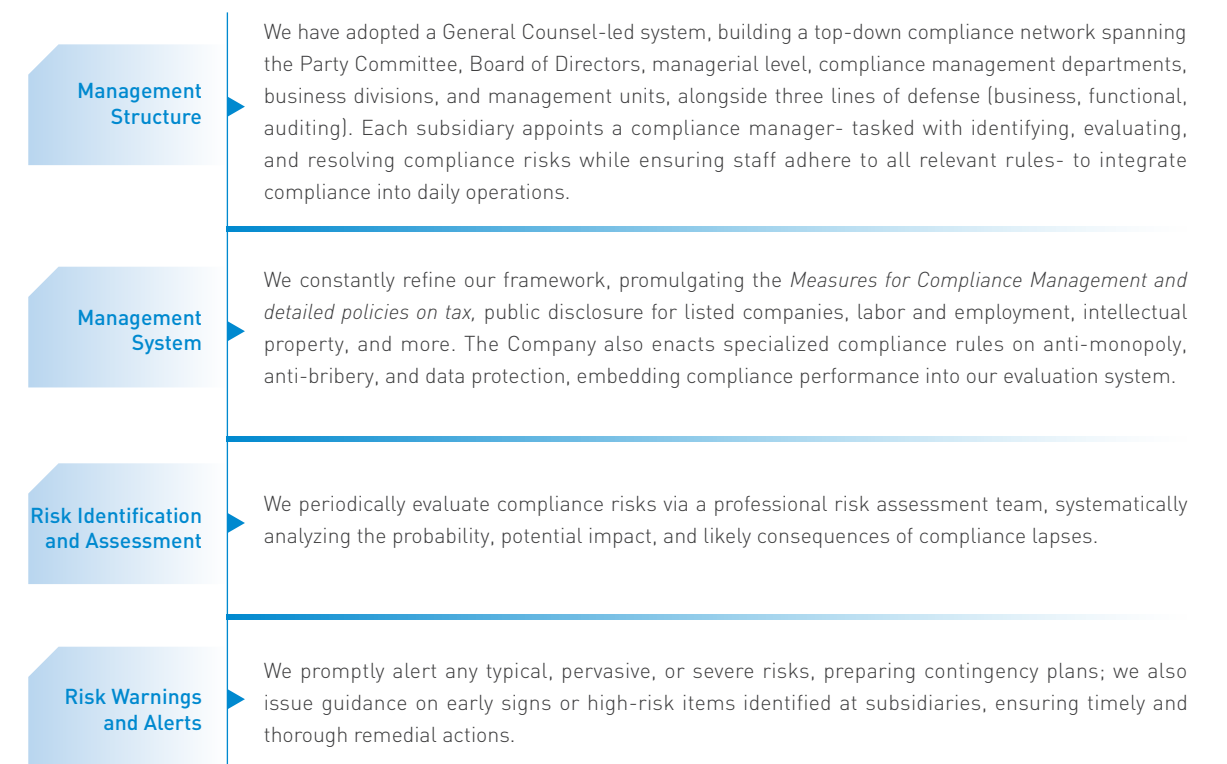
The Risk Compliance Department is deeply involved in bidding processes, investment management, related-party transactions, asset disposals, and overall operations. By participating in professional evaluations, we identify potential risks early and propose lawful, compliant, and rational recommendations, fully capitalizing on internal control's preventative role. In 2024, the Company kept all major risks under effective control.



| Risk                             | Risk Cause Analysis   | Response Measures  |
|----------------------------------|---|--|
| Environmental Protection Risks   | Intensified enforcement and penalties; rising environmental management costs; elevated regulatory demands on solid/hazardous waste                            | Advance ultra-low emission retrofitting; boost environmental performance investment; systematically formulate continuous environmental improvements; strictly follow "three-simultaneous" eco requirements; strengthen emergency management, supervision, and evaluation; conduct comprehensive environmental training |
| Product Quality Management Risks | Increased market differentiation and customization; difficulty meeting clients' unique quality demands, raising complexity in controlling product performance | Fully implement consistent quality and life-cycle management; invest in upgrading technology and equipment; enforce "one agreement, one product, one list" controls; deepen lean quality management; strictly follow the quality incident management system  |
| Production Safety Risks          | Complex operational environment with numerous high-risk factors; insufficient safety oversight for relevant parties or outsourced labor                       | Reinforce accountability for production safety; emphasize risk management in high-hazard operations; urge relevant parties to build robust safety systems and improve supervision of outsourced labor; intensify emergency safety drills   |

## Compliance Management

Shandong Steel has pioneered an integrated approach, aligning compliance with production and operations to achieve full coverage and normalized compliance oversight. We conduct rigorous compliance reviews for major operational decisions, reinforce compliance management and internal controls, and continually advance standardized, law-based corporate governance.





## Audit Management

Shandong Steel abides by the *Audit Law of the People's Republic of China*, the *Regulations for the Implementation of the Audit Law of the People's Republic of China*, the *Provisions of the Audit Office on Internal Audit Work*, and other relevant laws and regulations. We have promulgated the *Internal Audit Management Provisions*, enabling us to fully leverage internal audit's role and continuously improve the corporate governance system.

We have established a robust organizational framework for audit tasks. The Board of Directors serves as the leading body for the Company's auditing affairs. Under the Board, the Risk Management and Audit Committee guides and supervises internal audit work, while the Risk Compliance Department acts as the internal audit management body, receiving guidance and oversight from the Committee.

In 2024, Shandong Steel conducted 11 audits focused on key aspects of operational performance, engineering project development, and major risk management, thus helping to plug loopholes, guard against risks, improve performance, and standardize governance. We place great emphasis on rectification; through a monthly scheduling mechanism, all responsible units rigorously analyze root causes and devise practical corrective actions to ensure thorough solutions. The Company maintains a comprehensive audit-issue register, implementing "registration-and-closure" management with monthly follow-ups.

## Fostering a Risk and Compliance Culture

We actively foster a risk-and-compliance culture, encouraging all employees to learn about and adopt it throughout business operations. Regular internal trainings, external expert lectures, risk-control case studies, knowledge contests, and other activities ensure employees fully grasp compliance requirements and Company policies, boosting risk prevention and compliance capabilities. Through multiple communication channels-official WeChat accounts, work groups, and more-the Company disseminates news on risk-and-compliance events and relevant cases. Compliance management is a compulsory course for managers, key roles, and new recruits. In 2024, we hosted four compliance management and risk prevention training sessions, covering over 600 participants.

### Case: Special Training on Contract Management to Strengthen Risk Prevention and Control

In November 2024, Shandong Steel held a special training session on contract management, inviting judges from the Jinan Steel City District People's Court and attorneys from a law firm to present. Nearly 100 staff from across the Company attended.

Focusing on the *Civil Code of the People's Republic of China* (Contract section), the program analyzed legal risks and preventative measures for corporate contracting. From a compliance perspective, it also provided concrete, practical strategies to address common contract issues and explored ways to improve contract management systems and efficiency.



In the future, Shandong Steel will continue to enhance comprehensive risk management, including dynamic major-risk assessments, specialized evaluations for key matters, and full risk coverage to avert any significant threats. We will further build and refine our compliance framework and risk-control mechanisms, ensuring all business activities operate lawfully and in compliance. Meanwhile, the Company will keep strengthening its risk-and-compliance culture, deepening employee awareness and forming a lasting risk management improvement system. We will also step up our audit management efforts, fully utilizing audits' supervisory and service functions.

## Advocating Virtue, Fulfilling Promises, and Adhering to Business Ethics

Shandong Steel maintains a professional, honest, and upright stance in all commercial transactions and relationships, operating under applicable laws and the highest standards of ethics. We aim to foster a fair, transparent, and honest work and business environment, placing strong emphasis on nurturing a corporate culture of integrity. The Company firmly opposes and vigorously punishes any acts of commercial bribery or corruption that may compromise its integrity and reputation.

## Integrity Risk Management

Shandong Steel strictly complies with the *Criminal Law of the People's Republic of China*, *Anti-Money Laundering Law of the PRC*, *Anti-Unfair Competition Law*, *Provisional Provisions on Prohibiting Commercial Bribery*, and other laws and regulations. We have enacted and implemented documents such as the *Guidelines for Special Prevention and Control of Commercial Bribery Risk* to continuously improve our integrity management framework. This provides a robust institutional basis for anti-bribery and anti-corruption efforts. The Company resolutely safeguards a fair, open market environment; rejects any form of bribery, extortion, fraud, money laundering, or monopoly; and adheres to zero tolerance for unethical conduct. In 2024, we incurred no fines or settlements due to unfair competition, conflicts of interest, money laundering, or insider trading.

The Company views integrity risk management as an important part of strategic risk management, embedding preventive measures throughout operations to achieve full-process oversight. We regularly evaluate integrity risk controls, pinpoint vulnerabilities, strengthen relevant measures, and establish a comprehensive risk-prevention system. Upon identifying recurring or serious issues, we swiftly launch targeted governance actions-focusing on both systematic and fundamental improvements, from enhancing awareness and refining processes to instituting post rotations-thereby effectively preventing integrity risks.

We continually reinforce integrity oversight for employees in crucial positions. We introduced the *Provisions on Clean Interaction for Key Personnel and Service Recipients*, plus an eight-item "negative list" to standardize interactions between key personnel and management clients, ensuring a clean, transparent business relationship. Meanwhile, the Company harnesses digital tools to boost governance efficacy, monitoring critical roles and sensitive procedures in real time, steadily eliminating any potential risks.

## Building a Culture of Integrity

Shandong Steel has released *Several Measures on Strengthening the Construction of an Integrity Culture* and the *Three-Year Plan for Deepening Integrity Culture in the New Era (2024-2026)*, forming a "1+4" educational matrix centered on political and Party-focused education, with "embedded" disciplinary education, "layered" warning education, "interactive" family education, and "ladder" on-site education. By utilizing this matrix, we innovatively conduct integrity training, integrate compliance requirements into daily operations, and enhance employees' risk-control awareness. In 2024, business ethics training covered our entire workforce, with more than 200 integrity-related sessions held across the Company- total attendance exceeding 15,000 people.

## "1+4" educational matrix centered on political and Party-focused education

### "Embedded" Discipline Education

Incorporates integrity lessons into project management and production workflows via bulletin boards, Party lectures, theme activities, educational videos, and staff pledge-signing, creating a strong culture of integrity.

For three consecutive years, we have run a series of family-oriented integrity activities-such as home visits and parent-child sessions-that integrate anticorruption awareness into daily life, strengthening "off-duty" supervision and forging a family-company joint defense. In 2024, we carried out "Uphold Integrity, Starting at Home" campaigns, including "zero-distance" visits, "one-on-one" integrity classes, and signing *Commitments to Clean Practice and Family Advocacy for Integrity*.



### "Interactive" Family-value Education

### "Layered" Warning Education

Tailors sessions for senior leaders, middle management, and frontline employees-e.g., specialized lectures by external experts, case reviews, and compliance trainings. For new hires and younger cadres, "Young & Clean Classroom" modules deliver customized integrity instruction.

Shandong Steel has developed purpose-built integrity education bases represented by the "Steel Integrity Culture Garden" at our Rizhao Base, as well as the "Mirror Garden" at our Steel City Base, alongside 20 demonstration sites and cultural corridors for integrity education. These collectively supply abundant resources and a supportive environment for ongoing integrity training.

### "Ladder" Learning Platform Education

## Jointly Building a Clean Ecosystem

Shandong Steel is devoted to shaping an integrity-based, mutually beneficial ecosystem with its partners. We have formulated the *Sunshine Procurement Management Measures*, consistently refining transparent procurement methods and bolstering integrity risk controls. Following "all bids must be tendered," the Company maintains a 100% online purchasing rate across categories. Signing an *Integrity Agreement* is required for every contract-prohibiting all forms of commercial bribery-thus ensuring fair, transparent competition and preempting unfair conduct.

Each year before New Year's Day, the Company circulates a *Letter to Business Partners*, emphatically championing "integrity, honesty, and mutual benefit," and resolutely combating demands for bribes, borrowed capital, or shifting of costs, all of which undermine competitive fairness. We operate official WeChat accounts like "Integrity Bridge" to post relevant policies, highlight wrongdoing cases, provide holiday integrity reminders, and offer a one-click reporting channel-enhancing partner engagement and fostering a clean business environment.

The Company upholds legality, fairness, impartiality, and openness while reviewing supplier contracts. Each contract clarifies mutual rights and obligations-covering product or service quality, pricing, and promotional methods-to ensure compliance with relevant laws, prevent misleading publicity, and guard fair competition. Confidentiality and intellectual property clauses further protect trade secrets and IP, respecting all parties' rights and maintaining orderly markets.

## Reporting and Investigation Mechanism

Shandong Steel has solidified its whistleblowing framework, expanding complaint and reporting options via letters, visits, online platforms, calls, and a mobile supervision channel. We encourage stakeholders to submit real-name or anonymous reports concerning unethical conduct, and periodically assess the effectiveness of these pathways. Should a report concern a specialized area, the pertinent management unit investigates and responds, ensuring accessibility and prompt feedback. Suspicions of legal or disciplinary violations are referred to relevant agencies, such as the discipline inspection department. The Company implements strict confidentiality, e.g. designating dedicated staff, specialized storage, and a unique hotline, and rewards verified real-name whistleblowers. In 2024, our timely resolution rate for reports remained at 100%.

Reporting Hotline: 0531-77920968

Online Reporting E mail: gf77920968@shan-steel.com

Address: No. 99, Fuqian Street, Gangcheng District, Jinan City, Shandong Province, 271104, P.R. China.



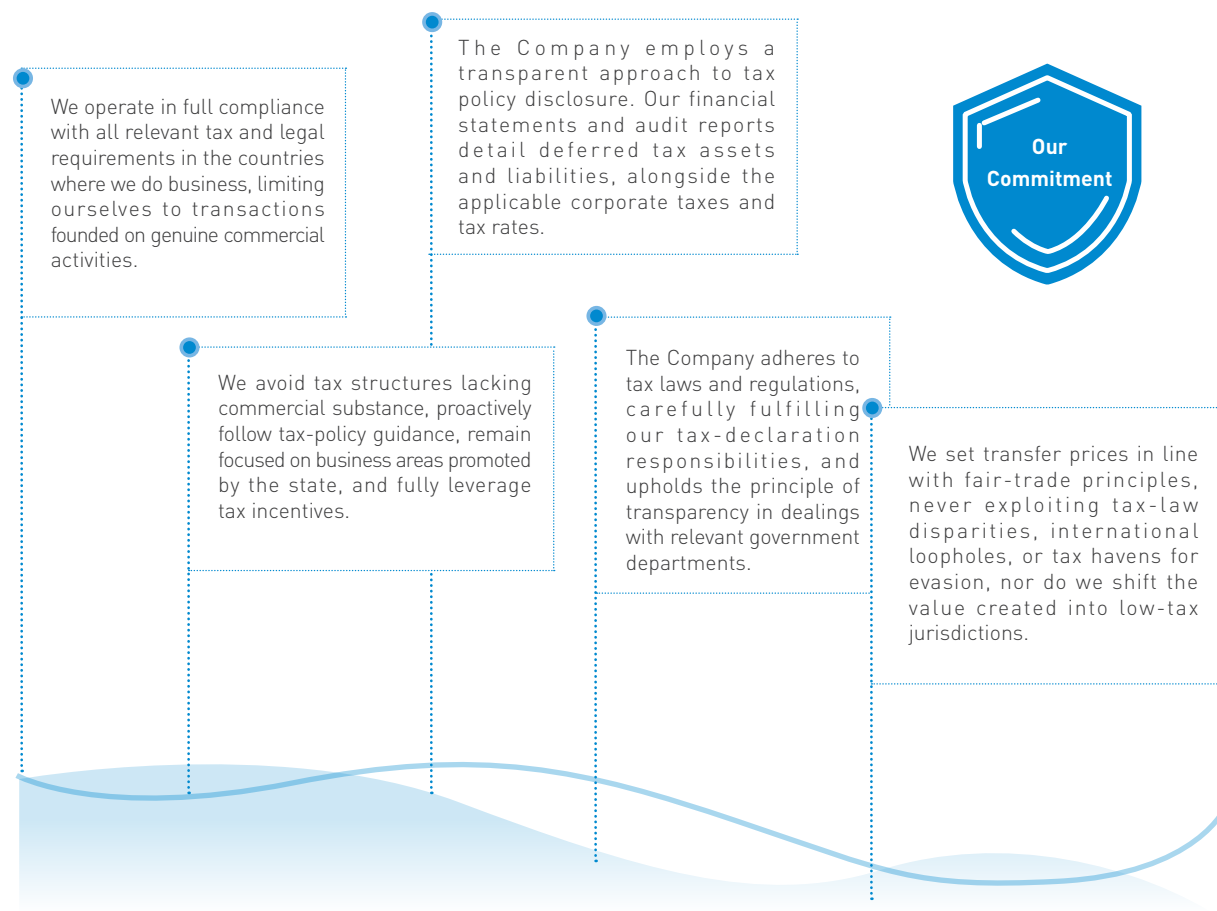
## Operating with Integrity and Optimizing Tax Management

Shandong Steel has always regarded tax management as a critical component of enterprise management, earnestly implementing national tax policies and fulfilling its tax obligations in accordance with the law. We strictly abide by national tax laws and regulations, paying all taxes and fees fully and on time. Meanwhile, the Company continually strengthens its internal management and standardizes accounting procedures to ensure the authenticity and accuracy of tax data. When handling international tax-related matters, we comply with international tax laws and regulations, observing principles such as tax jurisdiction, avoidance of double taxation, exchange of tax information, international tax adjustments, anti-avoidance and anti-evasion measures, single-taxation, the beneficiary principle, and international tax neutrality, thus guaranteeing that all business activities are authentic.

Shandong Steel strictly complies with local tax-authority requirements, filing and paying taxes in accordance with the law. Our annual tax credit rating remains Grade A.

### "Steel Integrity Culture Garden," of Rizhao Base ",Mirror Garden" Integrity Education Center of Steel City Base





## ► Tax Administration

We have established a modern, institutionalized, and standardized tax-management system by continuously refining and innovating our tax practices, integrating production, finance, and tax functions to ensure transparent, standardized, and equitable taxation. The Company's headquarters conducts unified tax management for different lines of business and across various regional units. The financial departments at headquarters and at each management unit include specialized tax-management sections or positions, fully responsible for tax-risk controls, implementing tax and accounting policies, and handling tax-related matters.

To ensure standardized, specialized tax management, we have formulated various measures such as *Management Measures for Enterprise Income Tax*, *Tax Management Measures for Overseas Non-Trade Businesses*, and *Management Standards for Taxation*, *Management Standards for Tax Returns*, *Management Standards for Enterprise Income Tax*, and *Management Standards for Accounting of Taxes on Properties and Behaviors*. These documents further refine the operational processes and requirements for tax management, solidifying standardization.

## ► Tax Risk Management

Shandong Steel continuously enhances tax-compliance risk management and has established a robust tax-risk prevention mechanism. We have introduced instruments such as the *Tax Risk Management Measures* and the *Tax Risk Management Standards* to enable early warning, in-process control, and post-event evaluation of tax risks, comprehensively monitoring the Company's tax exposures across prevention, avoidance, control, and response.



Controlling risk at the source through front-end oversight. We shift the risk-management process forward, covering all phases before, during, and after operations. Procurement, sales, maintenance, engineering, and finance all fall under tax-risk scrutiny—from contract signing and invoicing to accounting and fund transfers—thereby strengthening tax-related assessments of major issues and detailed controls over business processes while providing early warnings for probable risk points. Meanwhile, the Company dynamically updates its database of tax laws, regulations, and preferential policies, and performs regular internal audits and tax-related self-inspections to detect and eliminate potential risks in a timely manner.

Enhancing tax information exchange and training. We actively engage in tax-related courses—such as large-enterprise risk-management training—organized by tax authorities and professional institutions, occasionally inviting external experts to provide in-house instruction. This approach strengthens both risk awareness and the professional skills of our tax-management team. The Company also maintains close communication with tax advisory firms and other external experts, ensuring timely discussion of new regulations and policy updates, so that our tax practices remain law-abiding.

During the reporting period, we faced no major tax violations.





02

Environment

## Transition to Green Development, Painting a Scroll of Blue Waters and Clear Skies

We still have time to choose another path- a wiser one that leads us to live in harmony with nature. This path is full of hope, demanding that we explore nature's mysteries with both wisdom and humility.

—Rachel Carson, *Silent Spring*



- ◆ Guided by the Dual-Carbon Strategy, Optimizing Climate Management
- ◆ Strengthening the Foundation and Deepening Environmental Governance
- ◆ Maximizing Energy Efficiency and Enhancing Resource Utilization
- ◆ Saving Water and Protecting Our Source of Life
- ◆ Recycling and Enhancing Solid Waste Disposal
- ◆ Harmonious Coexistence, Safeguarding Biodiversity





## Transition to Green Development, Painting a Scroll of Blue Waters and Clear Skies



Shandong Steel firmly embraces a path of green development, achieving harmonious coexistence of steel production with clear skies and clean waters. The Company took the lead in completing an ultra-low-emissions transformation for the entire steelmaking process in Shandong Province and was among the earliest in the industry to achieve region-wide A-level environmental performance, fully showcasing the advantages of green development. In recent years, we have successively earned honors such as "National Environmentally Friendly Enterprise," "National Greening Model Unit," "National Pilot Demonstration Enterprise for Promoting Energy Conservation and Emission Reduction via Informatization-Industrialization Integration," "National Top Ten Enterprise for Comprehensive Resource Utilization," "Cleaner Production and Environment-friendly Enterprise in China's Steel Industry," "National Water Efficiency Leader," and "National Green Factory."

## Guided by the Dual-Carbon Strategy, Optimizing Climate Management

### ► Governance

Climate governance is a crucial global concern. In October 2023, SISG joined the Global Low-Carbon Metallurgy Innovation Alliance, with Shandong Steel playing a key role. The Company's management team acts as the decision-maker for climate governance, overseeing our carbon peaking and neutrality targets and development plans, deliberating major carbon issues, and drafting carbon management systems per national policies.

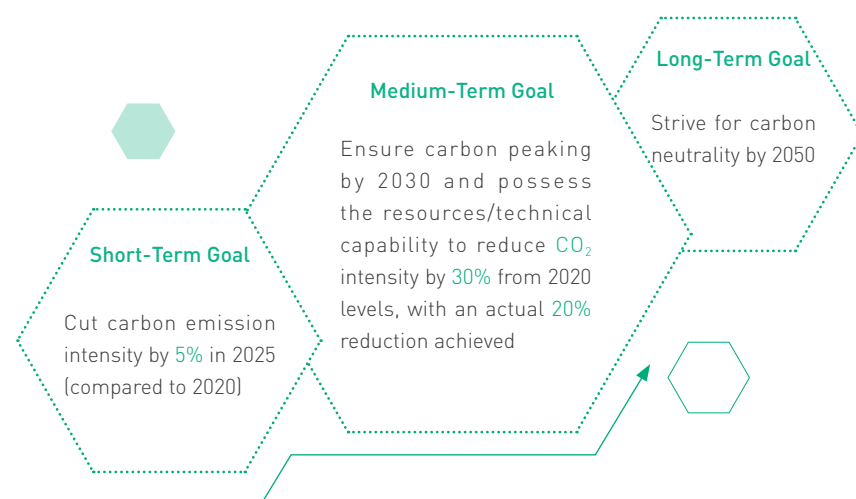
The Energy and Environmental Protection Department acts as the governance layer for climate strategies, featuring a dedicated low-carbon position responsible for low-carbon policy research, R&D/application of green and low-carbon technologies, carbon emission reduction, carbon asset management, and external exchange/cooperation. It also supervises and evaluates the executive level's implementation of climate measures.

All relevant departments and subsidiaries of the Company form the executive layer of climate governance, charged with implementing specific energy conservation and emission reduction measures, and accepting oversight from the Energy and Environmental Protection Department.

### ► Strategic Initiatives

#### Dual-Carbon Strategy

Shandong Steel actively responds to China's dual-carbon strategy and, in line with the *Carbon Peak Work Program*, has set its own carbon peaking and neutrality objectives:



### Carbon Reduction Initiatives

The Company has clarified a multi-pronged carbon reduction path: "scientific planning, extreme energy efficiency, process innovation, technological innovation, and green development." During the reporting period, we implemented the process carbon reduction projects, actively developed new carbon-reduction technologies, and bolstered energy-conservation and low-carbon awareness among employees, steadily exploring a path toward long-term deep decarbonization.

#### • Production Process Carbon Reduction

The Company consistently optimizes blast furnace burden structure, lowers the iron-steel ratio, raises the scrap ratio, and has executed thick-bed sintering, sintering hot gas ignition, hot gas sintering, pellet waste heat recovery, and other process-oriented projects to curb CO<sub>2</sub> emissions. At the Rizhao Base, converter scrap ratio reached 23.6%-7.9 percentage points higher year-on-year, while at the Steel City Base, it rose from 12.45% in 2023 to 14%.

#### • Technological Carbon Reduction

We proactively adopt advanced low-carbon measures, such as CO<sub>2</sub> top-bottom blowing in converters and BF injection of coke-oven gas. At the Rizhao Base, the No.1 and No.2 converters smoothly run a top-bottom CO<sub>2</sub> blowing smelting project that replaces argon for bottom stirring, thus reducing argon use, boosting stirring and dephosphorization, and minimizing iron loss for a new low-carbon breakthrough. Designed annual CO<sub>2</sub> usage is 30,000 tonnes, saving roughly 4,760 tonnes of standard coal. The No.3 and No.4 converters will also apply this technology in the future.

Looking ahead, Shandong Steel will continue focusing on production-process carbon reduction, energy mix adjustments, adopting energy-conservation/carbon-reducing technologies, and tracking cutting-edge low-carbon smelting. The Rizhao Base plans to implement 12 energy-conservation/carbon reduction projects by 2025, saving about 46,000 tonnes of standard coal yearly, while the Steel City Base aims to cut about 51,000 tonnes of standard coal via multiple energy-efficiency projects.



#### Carbon reduction path

- Scientific planning
- Extreme energy efficiency
- Process innovation
- Technological innovation
- Green development

Scrap Ratio in Converters of Rizhao Base reached

**23.6%**

Steel City Base rose to

**14%**

Rizhao Base will save about

**46,000** tonnes of standard coal yearly by 2025

Steel City Base aims to

cut about **51,000** tonnes of standard coal by 2025



Enhancing Energy-Conservation and Low-Carbon Awareness

Shandong Steel actively observes an Energy Conservation & Environmental Protection Promotion Month, contributing to "Beautiful Shandong Steel, Beautiful China." Through environmental outreach, knowledge lectures, low-carbon knowledge contests, neighborhood campaigns, and essay activities, the Company raises awareness among employees, families, and local residents about resource conservation and environmental protection as fundamental national policies. We disseminate green and low-carbon development concepts, promote environmental stewardship and carbon-reducing mindsets, encourage thrift and eco-friendly social practices, and advance green, low-carbon production and lifestyles.



Risk and Opportunity Management

Climate change risks can directly or indirectly impact a company's operations and finances. Shandong Steel analyzes these risks and opportunities based on policies, regulations, and markets, identifying five climate-related risks that could materially affect the Company's business.

| Type of Risk    |                           | Potential Impact  |
|-----------------|---------------------------|---|
| Physical Risk   | Typhoon                   | The Rizhao Base lies on the Yellow Sea coast, making it prone to typhoons. With frequent extreme weather events in recent years, this may lead to potential asset impairment or loss, as well as additional economic losses.  |
|                 |                           |   |
| Transition Risk | Policy & Laws/Regulations | As the steel sector joins the national carbon market, and the Carbon Border Adjustment Mechanism (CBAM) is fully enforced in 2026, the Company could face higher carbon prices, growing carbon compliance costs, policy constraints on energy transition, and "green trade barriers" (e.g., overseas "carbon tariffs"), leading to increased investments, operating, and export costs while lowering revenue. |
|                 | Technology & Costs        | In the low-carbon transformation, we must invest more in energy-saving and environmental technologies and low-carbon smelting R&D. This raises R&D costs and risk of value loss of fixed assets.  |
|                 | Market                    | Domestic steel demand has plateaued. Driven by the green and low-carbon shift across the entire chain, demand for low-carbon steel will rise. Competition among steelmakers may intensify, and a slower green transition could shrink the Company's market share.   |
|                 | Reputation                | Stakeholders' and the public's concerns about our climate initiatives may result in reputational risks that affect operations.  |

Climate change is also reshaping social and economic development, bringing opportunities for sustainable corporate growth. By analyzing industry and market conditions, along with the Company's resources and strategies, we identified:

Products and Services

We can capitalize on surging steel demand in new energy sectors, vigorously developing wind-power steels, marine equipment steels, etc. Through R&D of ultra-high yield strength plates, pipeline steels, and other green low-carbon products, the Company meets market and customer needs for lower-carbon options.

Resource Efficiency

By optimizing production processes, maximizing energy usage, and recycling resources, we improve energy efficiency, foster energy conservation and emissions cuts, and help reduce operating costs.

Energy Sources

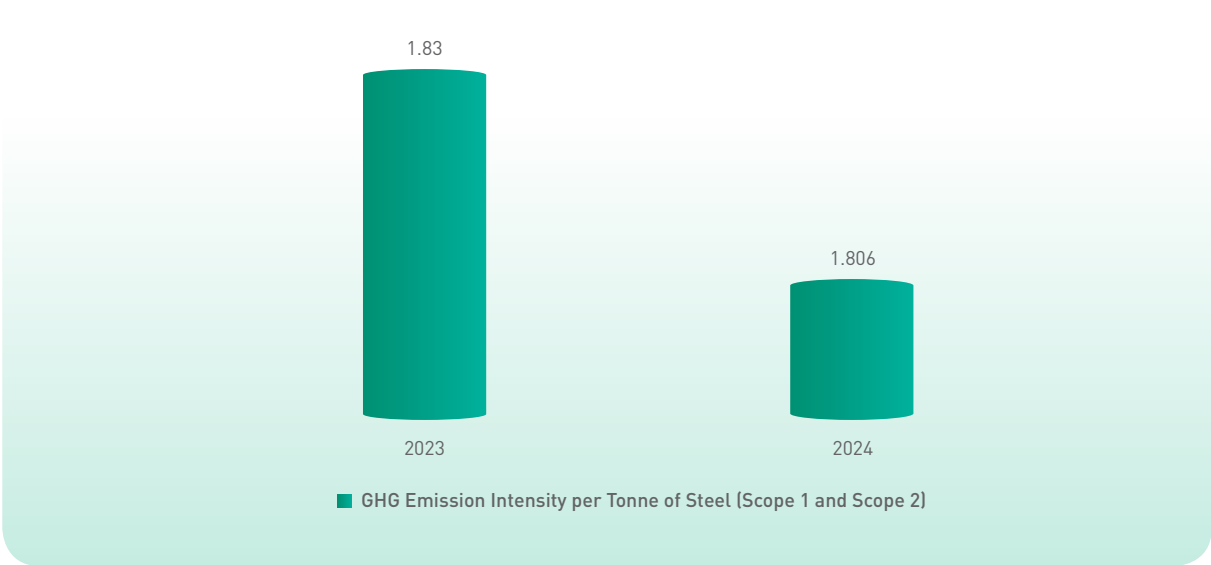
The Company replaces traditional high-carbon fuels with clean energy, steadily increasing the use of solar, wind, hydropower, and more, building a circular green economy that reduces our energy expenses and compliance costs while contributing to low-carbon development.

Indicators and Performance

To ensure our dual-carbon goals are met, the Company continuously monitors and manages direct and indirect GHG emissions. In this reporting period, we measured greenhouse gases in accordance with national standards, further lowering total emissions. GHG emission intensity per tonne of steel decreased to 1.806 tCO<sub>2</sub>e, as shown below:

| Indicator                         | Unit               | 2022       | 2023       | 2024       |
|-----------------------------------|--------------------|------------|------------|------------|
| GHG emissions [Scope 1]           | tCO <sub>2</sub> e | 23,712,624 | 24,512,877 | 24,821,339 |
| GHG emissions [Scope 2]           | tCO <sub>2</sub> e | 4,150,032  | 2,670,937  | 2,331,860  |
| GHG emissions [Scope 1 + Scope 2] | tCO <sub>2</sub> e | 27,862,656 | 27,183,813 | 26,988,399 |

Note: Carbon emissions in 2024 are preliminary data.



## Strengthening the Foundation and Deepening Environmental Governance

### Environmental Compliance Management

In 2024, Shandong Steel optimized the organizational structure of environmental management systems and formulated or revised more than 10 environmental management systems, including *Management Provisions on Environmental Protection Responsibility System and Accountability*, *Management Measures for Environmental Protection Supervision*, *Management Provisions on Waste Gas Emission Control*, *Management Provisions on Wastewater Emission Control*, *Management Provisions on Environmental Protection of Construction Projects*, and *Management Provisions on Environmental Monitoring*, ensuring standardized environmental management practices. We conducted the annual supervision and audit of the environmental management system according to ISO 14001 and GB/T 24001-2016 standards, achieving 100% certification coverage.



### Environmental Inputs and Performances

Shandong Steel continues to increase investment in environmental protection. Through source emission reduction, process control, and end-of-pipe treatment, we implemented comprehensive, company-wide environmental governance. The Company consolidated and maintained an "A" level environmental performance rating, continuously enhancing its governance capability and management efficiency.

During the reporting period, the Company invested RMB 1172 million in key environmental projects, such as coke oven flue gas desulfurization and denitrification system upgrading, ultra-low emission renovations of sintering machine flue gas, and deep treatment of sulfur dioxide from gas-fired power generation, maintaining A-level environmental performance. The environmental protection "Three Simultaneities" system for construction projects achieved a 100% implementation rate, and pollutant discharge compliance, hazardous waste disposal compliance, and synchronous operation rate of environmental protection facilities all reached 100%, with zero significant environmental pollution incidents or regulatory penalties, maintaining the environmental credit "green label."

Invested **RMB 1172** million in key environmental projects

Maintaining **A**-level environmental performance

**100%** Implementation rate of "Three Simultaneities" system for construction projects

**100%** Synchronous operation rate of environmental protection facilities

**100%** Pollutant discharge compliance rate

**100%** Hazardous waste disposal compliance rate

### Environmental Risk Management

Shandong Steel strengthens environmental risk management and control, safeguarding the bottom line of safety and environmental protection. We have listed environmental risks, such as excessive emissions and environmental penalties, as major risks requiring comprehensive control. The Company has hired a law firm as its eco-environmental legal compliance consultant to provide periodic consulting services, and regularly invites environmental authorities and professional organizations to conduct on-site assistance and guidance. We proactively identify and address environmental risks, and formulate control plans to reduce compliance risks.

The Company has formulated the *Emergency Response Plan for Environmental Emergencies* in accordance with applicable laws and regulations, establishing and continuously improving an emergency response mechanism, enhancing our capability to respond to and prevent sudden environmental pollution incidents. We regularly conduct emergency drills covering scenarios such as material leakage, fire, environmental facility failures, and radiation accidents. In 2024, the Company and its subordinate units conducted 67 emergency drills, with a total duration of approximately 78 hours.



Conducted **67** emergency drills

with a total duration of approximately **78** hours

#### Case: Rizhao Base Strengthens Standardized Radiation Management to Ensure Radiation Safety

All 60 employees involved in radiation-related operations at Rizhao Base hold radiation safety qualification certificates and received full occupational health examinations. The Company organized 8 specialized radiation safety training sessions and emergency drills, involving over 100 person-times, greatly improving the coordinated response capability for radiation incidents.

#### Case: Steel City Base Jointly Conducts Emergency Drills and Training with Government Departments

Steel City Base signed the *Emergency Material Storage and Emergency Rescue Agreement* with the Steel City Branch of Jinan Eco-Environmental Bureau. Experts from the Steel City Branch and Jinan Institute of Environmental Research were invited, using a combined approach of on-site lectures, exchanges, and field drills to conduct emergency response exercises, standardized management training for hazardous waste, and pollution discharge permit ledger management training. Over 160 management, technical, and operational personnel participated, with total training hours reaching 10, significantly enhancing the professional capabilities of environmental protection staff.





## Environmental Protection Training

On World Environment Day (June 5), the Company conducted ecological civilization training for all employees and launched the Energy Conservation and Environmental Protection Awareness Month in 2024, encouraging company-wide participation in related awareness campaigns, enhancing ecological awareness and capabilities, and supporting the building of a beautiful Shandong Steel and a beautiful China.

In 2024, the Company invited legal advisors and environmental regulators to conduct specialized training on standardized hazardous waste management, pollution discharge permit ledger management, and key points for environmental protection inspections. We conducted a total of 16 large-scale training sessions, involving over 4,000 person-times and totaling approximately 108 hours.



## Clean Production

Shandong Steel actively promotes the establishment of clean production and environmentally friendly enterprises. Both the Steel City Base and Rizhao Base have been recognized as clean production environmentally friendly enterprises in China's iron and steel industry. The Company has formulated continuous clean production plans, actively carried out research and development of new clean production technologies, optimized production processes and operation procedures, and adopted clean raw materials and fuels, including low-sulfur coal and low-sulfur iron ore. By applying advanced clean production and process control technologies, we have consolidated our achievements in clean production. The emission indicators of key air pollutants all surpassed the level-one standard of the Clean Production Evaluation Indicator System.

Continuously Improving the Proportion of Clean Transportation. Rizhao Base has invested RMB 365 million in constructing an internal dedicated railway line and cooperated with the outside to build a port-dredging railway. Additionally, more than 180 electric heavy-haul trucks have been put into operation, maintaining the proportion of clean transportation above 85%, surpassing the 80% target required by A-class enterprises with environmental protection performance. Steel City Base mainly uses railway, road, and conveyor belt transportation. Railway transportation primarily leverages the Company's dedicated railway lines (Yanzhuang Station and Laigang Station), conveniently connected to the Jinan Railway Bureau of China Railway, ensuring efficient transportation in supply and sales operations. The internal railway and dedicated automobile lines primarily handle hot metal transportation within the plant. Conveyor belt transportation is mainly used for cross-regional coke delivery. Road transportation is conducted in cooperation with third-party logistics providers to satisfy the logistics needs of surrounding regions. The proportion of clean transportation remains above 80%.



More than **180** electric heavy-haul trucks have been put into operation in Rizhao Base

The proportion of clean transportation remains above **85%**

Surpassing the **80%** target required by A-class enterprises

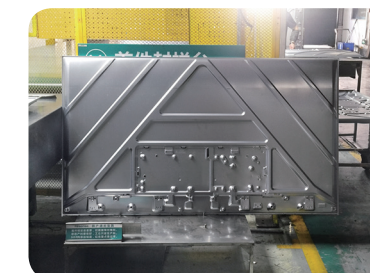
## Green Product Design and R&D

### Green Products

Shandong Steel continuously develops green low-carbon steels featuring high strength, corrosion resistance, and energy efficiency, while collaborating with downstream steel users to advance carbon-reduction efforts.

#### Fingerprint-Resistant Hot-Dip Galvanized Steel Sheets

Named "fingerprint-resistant" because its surface remains smudge-free when touched with a clean finger, this steel is widely used in home appliances and electronics for its superb fingerprint resistance, electrical conductivity, and corrosion resistance.



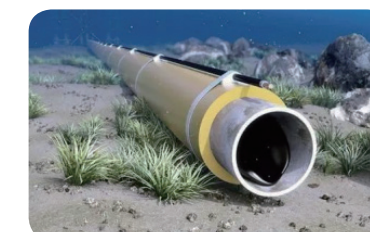
#### EH690 Series Offshore Steel



This ultra-high-strength offshore engineering steel applies to main hulls, drilling decks, pile shoes, cantilever beams, pile legs, racks, and half-circular plates for offshore drilling and oil production. It offers a 50% longer service life than vessel-grade steels, requiring low internal segregation, minimal banding, fewer inclusions, and uniform microstructure, plus excellent shaping, hot/cold formability, and weldability. Our latest product reaches 800 MPa tensile strength, >100 J impact toughness, ≥35% Z-direction lamellar tear resistance, and superior weld properties. Thickness can exceed 85 mm.

#### X60M0 Hot-Rolled Plate for High-Grade Submarine Pipelines

At our Rizhao Base, we successfully developed X60M0 hot-rolled plate for high-end submarine pipelines, used in a major domestic project. With thicknesses above 14 mm, these coils demand rigorous strength, low-temperature toughness, and newly added CTOD performance requirements (CTOD measures low-temperature toughness at a higher standard than conventional tests), making production extremely challenging.



#### X60MS Dual-Resistant Pipeline Steel



Incorporating hydrogen-induced cracking (HIC) and sulfide stress corrosion cracking (SSCC) resistance with a 415 MPa yield strength, X60MS was delivered to a sour-service oil and gas pipeline project in Qatar, broadening the Company's dual-resistant pipeline steel offerings and reaching a new production milestone.



### Thick-Walled, High Crack-Arrest Pipeline Steel for Supercritical CO<sub>2</sub>

Based on CCUS/CCS (carbon capture & storage) technology, these pipes serve specialized CO<sub>2</sub> sequestration needs. Developed at the Rizhao Base, they provide CO<sub>2</sub> corrosion resistance, solid low-temperature impact properties, drop-weight shear capacity, and acid resistance- successfully applied in China's largest-diameter, thickest LSAW pipes for supercritical CO<sub>2</sub> transport.



### Large Deformation-Resistant Pipeline Steel via Hot Rolling



Exhibiting high strength, toughness, a low yield ratio, and a large uniform elongation, this steel fully meets seismic-fault pipeline demands. Produced in small batches and approved by user UOE pipe evaluations, the Company pioneered hot rolling line production of large deformation-resistant pipeline steel, filling an industry gap and supporting national energy pipeline expansion with notable economic and social advantages.

### 9Ni Steel for China's Largest LNG Storage Tanks

With exceptional low-temperature toughness (-196°C) and high strength, 9Ni steel can withstand substantial loads without brittle fracture. We supplied over 6,000 tonnes for the nation's largest-volume LNG tank under construction, which will process up to 6 million tonnes of LNG annually. This achievement is vital for national energy security, optimizing the energy mix, and advancing "dual-carbon" goals.



### Steel for Building Structures



Shandong Steel led domestic development of  $\geq 600$  MPa seismic-reinforced bars, cutting steel use by 20%-30% with substantial environmental and economic benefits. We also created an 80 mm thick Q460GJD acicular ferrite-based plate for building structures, addressing uniformity issues at extra-thick specs and achieving a complete product range from Q345GJ to Q460GJ. In sections, we research multi-phase-structure functional building sections, enabling a full lineup of high-strength, tough hot-rolled H-beams.

### • Green Design

The Company follows Life Cycle Assessment (LCA) and green design concepts, actively promoting green steel product design and certification. In 2024, we completed LCA designs for four section-steel production lines, and pipeline steel was included in the Ministry of Industry and Information Technology (MIIT)'s 2022 Green Design Product List. During 2024, Shandong Steel released four Environmental Product Declarations (EPDs), totaling eight EPD reports so far.



### ► Air Pollution Control

Shandong Steel strictly abides by national laws and regulations, formulating the *Waste Gas Emission Management Regulations and the Three-Year Action Program for Environmental Performance A (2024-2026)*, among other documents, to comprehensively reduce pollutant emissions, improve environmental quality, and reinforce A-level environmental performance across all operations via source emission reduction, process control, and end-of-pipe treatment.

In 2024, the Company carried out 28 major environmental remediation projects. Sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and particulate matter (PM) all reached ultra-low emission levels. Emissions per tonne of steel stood at 0.09 kg for SO<sub>2</sub>, 0.27 kg for NO<sub>x</sub>, and 0.18 kg for particulates.







### Source Emission Reduction

Shandong Steel decreases pollutant generation by optimizing production processes, adopting low-sulfur coal/ore, and integrating advanced technologies. We utilize wet electrostatic precipitators, membrane bag filters, cartridge dust collectors, etc. At Steel City Base's coking operations, we employ state-of-the-art microcrystalline adsorbent technology for coke oven gas, drastically lowering total sulfur content. At Rizhao Base, we recover blast furnace top gas via pressure equalization, reducing flue gas from its source.



### Process Control

The Company implements rigorous quality control during production to fulfill environmental standards. Through real-time monitoring and data analytics, we promptly identify and address potential emission issues. Both Steel City Base and Rizhao Base adopt an environmental oversight model combining online pollution-source monitoring, ongoing self-monitoring, and ecological inspections, supported by full-plant monitors for exhaust gas and ambient air. Within Rizhao Base's coking plant gas purification area, online detection technology achieves a new milestone for controlling H<sub>2</sub>S in coke oven gas, raising desulfurization efficiency to 98%.



### End-of-Pipe Treatment

We further mitigate emitted flue gases using high-efficiency dust collection plus desulfurization/denitrification devices. Rizhao Base runs significant flue gas governance efforts-like deep desulfurization and denitrification for coke oven gas and ultra-low emission retrofits for sintering lines-adopting cutting-edge pre-charged direct-flow bag filtration, thereby keeping particle outputs below ultra-low emission thresholds. At Steel City Base, all six coke ovens' charging and pushing lines are equipped with standby dust removal systems, preventing over-limit or disorganized emissions when environmental facilities require repairs or maintenance.

## Maximizing Energy Efficiency and Enhancing Resource Utilization

### Energy Use

Shandong Steel embraces the principles of a "systemic approach, scientific approach, and value creation," adhering to an energy-saving strategy of "systematic energy conservation, collaborative energy conservation, and technical energy conservation." By focusing on "energy management, process energy conservation, and technological energy conservation," we push consumption limits and regard enhanced energy efficiency as the most economical and direct path to a green, low-carbon transition.

#### System Construction

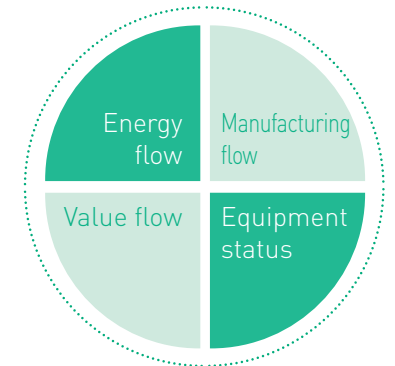
The Energy and Environmental Protection Department of the Company oversees all energy management, revising and improving Energy Management Systems. Both production bases have achieved ISO 50001 certification, reaching 100% certification coverage.



#### Managing Energy Conservation

Shandong Steel uses value creation as a guiding principle to deeply tap into energy-conservation and consumption-reduction potential, systematically boosting energy utilization efficiency and energy value utilization level. At the Rizhao Base, in line with the "three flows and one status" concept (energy flow, manufacturing flow, value flow, and equipment status), we integrate energy and other operational management to build a lean synergy model. By coordinating energy-production, benefits, and maintenance and following "forecast, budget, foreknowledge, prediction, pre-control, prevention," the Company has maximized gas utilization. In 2024, blast furnace gas diffusing reached zero, surpassing the industry's 0.2% average.

We also intensify electricity-saving measures by tailoring specific power-saving plans to each production line. For continuous processes like coking, ironmaking, and steelmaking, the Company focuses on auxiliary-equipment energy management. For rolling lines, we schedule shutdowns, roll changes, and maintenance during peak-price periods to optimize overall energy use.



"Three flows and one status" Concept



### Case: Multiple Blast Furnaces and Converters Recognized as "Pioneer Furnace" and "Excellence Furnace"

In July 2024, the annual results of the National Key Large Energy-Consuming Steel Production Equipment Energy-Conservation Benchmark Competition were announced, awarding nine "Champion Furnaces," 31 "Excellence Furnaces," and 33 "Pioneer Furnaces." Among them, the No.1 5,100m<sup>3</sup> blast furnace and No.1 210t converter at Rizhao Base received "Pioneer Furnace" honors, the 3,800m<sup>3</sup> blast furnace at Steel City Base was named an "Excellence Furnace," and the No.1 480m<sup>2</sup> sintering machine was also designated a "Pioneer Furnace."



#### Collaborative Energy Conservation

The Company fully utilizes Baosteel's integrated collaborative support platform to achieve energy conservation and synergy. Through technical exchanges and on-site diagnoses, we excel in converter gas recovery, converter waste-heat steam recovery, boosting high-efficiency power generation loads, reducing back-feeding, and balancing peak-valley power usage. Rizhao Base has conducted 32 collaborative exchanges with Baosteel, implementing 3 annual synergy projects, such as improving converter gas recovery, cutting steelmaking power consumption, and lowering gas consumption in thick-plate lines. Steel City Base carried out 7 synergy projects- ranging from extreme converter gas recovery and coking-based enhancement of CDQ steam output to curbing rolling-line gas use and slashing O<sub>2</sub>/N<sub>2</sub> consumption in steelmaking and ironmaking-yielding significant energy conservation.

### Case: Rizhao Base Lowers Power Consumption in Steelmaking

Reducing power consumption is pivotal for the Rizhao Base Steelmaking Plant. By continuously reinforcing energy and environmental management, refining smelting processes, integrating intelligent models, and adopting precise, efficient converter scheduling ("3×12+N" and "3 converters for 4 casters"), along with a production timetable to optimize process flow, we cut steelmaking electricity consumption per tonne by 4.8 kWh in 2024 (compared to 2023), enabling green, low-cost, high-efficiency, stable production.



### • Technical Energy Conservation

Shandong Steel drives technical energy-conservation retrofits across all processes and sites, further advancing energy conservation. During the reporting period, the Company continued to promote energy-conservation technology improvements-achieving 100% recovery of coke oven gas and blast furnace gas and stable limit recovery of converter gas-leading to 245,000 tce in total energy savings by 2024. Rizhao Base carried out 16 energy-saving projects with an annual saving of 43,700 tce; Steel City Base completed a coke oven riser heat-exchanger project and accelerated multiple initiatives, such as external gas pipelines for Lubi New Material Technology, yielding notable results.

**Actively Advancing Extreme Converter Gas Recovery Technology.** Through process optimization, technical improvements, and robust management, Rizhao Base raised converter gas recovery per tonne of steel to 0.92 GJ-10% above the previous year-reaching a leading national level. The steelmaking plant boosted converter gas metrics by over 8% via extreme recovery and CO<sub>2</sub> top-bottom blowing. At Steel City Base, model-based operations minimized flaring during recovery, achieving 100% converter gas capture and 0.78 GJ recovered per tonne of steel-significantly higher than in 2023.

**Maximizing Self-Generated Electricity.** Shandong Steel adheres to the principle of "lean supply, total recycling, efficient power generation, and tiered utilization," continually enhancing waste heat and residual energy usage. In 2024, the Company achieved 3.062 billion kWh of power from waste heat/residual energy. Rizhao Base contributed 1.27 billion kWh at a 35% self-generation ratio, saving 156,000 tce annually; Steel City Base generated approximately 1.792 billion kWh of self-supplied electricity, achieving an 87.8% self-generation rate and annual energy-conservation equivalent to 220,200 tonnes of standard coal.

Steel City Base achieved **100%** converter gas capture

Self-generated power accounted for **87.8%**

### Case: Rizhao Base Tundish Mixed-Gas Preheating Project

On the public gas pipeline outside the existing steelmaking workshop, we set up a gas-mixing platform drawing coke oven gas and converter gas from the public network. These are blended per a designated ratio and routed to the continuous caster's tundish for baking. Ensuring a calorific value  $\geq 10,000$  kJ/Nm<sup>3</sup>, from January to April 2024 the coke oven gas usage was 2.5 m<sup>3</sup>/t, then May to September it was 0.89 m<sup>3</sup>/t, with converter gas at 0.15 m<sup>3</sup>/t, yielding~6,792 tce/year in technological energy conservation.

### • Extreme Energy Efficiency

Shandong Steel follows the 50 benchmark energy-conservation technologies issued by the China Iron & Steel Industry Association (CISA) to execute special actions for energy reduction in key processes. In 2023, both the Steel City Base and the Rizhao Base were designated as cultivation units for "Energy Efficiency Benchmarking Demonstration Plants with Dual-Carbon Best Practices," and the Company earned the title of "Advanced Collective in Organizing and Promoting the Three-Year Action of Energy Efficiency Benchmarking for the Extreme Energy Efficiency Project in 2023."

During the reporting period, key processes (coking, blast furnace, converter) at the Rizhao Base reached a 100% benchmark compliance rate, successfully passing CISA's acceptance for the "Dual-Carbon Best Practice Energy Efficiency Benchmark Demonstration Plant." Rizhao Base thus became the first steel enterprise in Shandong Province to pass acceptance and be officially announced, and in 2024, we were recognized as an "Advanced Enterprise of the Three-Year Action for Energy Efficiency Benchmarking in the Extreme Energy Efficiency Project."



### Improving the Energy Management System

Under the principle of "horizontal to the edge, vertical to the end," the Rizhao Base follows a "management first, business-driven, system-support, organizational assurance" promotion route. We established two major control platforms-an energy management system and an energy control center (one "static" and one "dynamic")-to ensure efficient energy system operations.

### Grid-Based Energy Efficiency Diagnosis

The Rizhao Base employs a systematic energy conservation philosophy of "forward-looking thinking, holistic planning, integrated promotion," performing grid-based energy efficiency diagnostics. With reference to CISA's 50 benchmark energy conservation technologies and Baowu's 138 standards for extreme energy efficiency, the Company utilizes a "rolling propulsion strategy"-implementing, reserving, and developing a set of technologies-identifying 68 measures to enhance extreme energy efficiency. We formulated a 2023-2025 plan targeting coking, blast furnace, and converter processes across management, technology, and process dimensions, defining 22 key measures with RMB 176 million total investment and an annual energy conservation of 144,000 tce.

### Challenging Extreme Energy Efficiency

Rizhao Base reinforced energy-conservation technologies and launched specialized energy-reduction campaigns in priority processes. In coking, by using new technologies such as high temperature and high pressure CDQ and waste heat recovery of riser, the energy utilization efficiency is maximized, lowering coking process energy consumption (July 2023-June 2024) by 3.50 kgce/t compared to 2022. In ironmaking, waste heat recovery from slag flushing water and closed-loop cooling, plus total recovery of pressure-equalized gas, trimmed energy consumption by 1.40 kgce/t. In steelmaking, new methods such as AI image recognition for converter gas extreme recovery and dedusting-fan energy controls steadily reduce per-ton steel energy use. By building a converter gas extreme recovery control model-optimizing holder speeds, refusal temperatures, gas turbine co-firing rates, and an AI-based patented image recognition system for furnace-mouth micro-positive pressure-we reached an industry-leading converter gas recovery volume, cutting converter energy consumption (July 2023-June 2024) by 4.80 kgce/t compared to 2022.



• Renewable Energy

Shandong Steel actively explores renewable energy. At the Steel City Base, an on-site survey found roughly 1.5 million m<sup>2</sup> of rooftop space, with >600,000 m<sup>2</sup> feasible for PV installation. The feasibility study and bidding for the rooftop photovoltaic project are complete, with~80 MW total capacity and~90 million kWh projected annual generation, saving~11,100 tce yearly.

➤ Circular Economy

Shandong Steel emphasizes “green, low-carbon, and recycling,” leveraging an industrial cluster advantage in the circular economy. We have developed a standard system encompassing five key recycling chains-solid waste treatment, cascade water utilization, gas resource utilization, cascade waste heat usage, and deep coal-chemical processing. This system achieves efficient resource utilization and yields significant economic and social benefits.

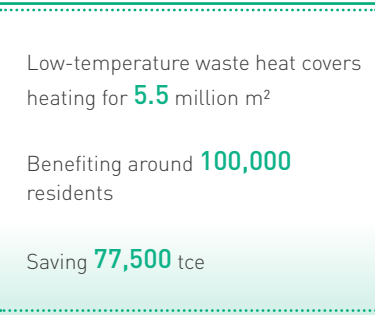
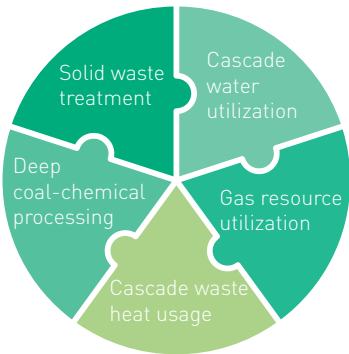
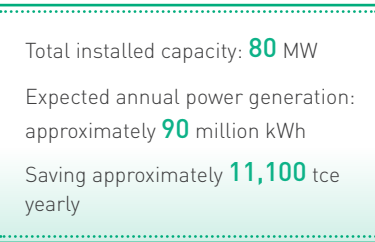
At the Rizhao Base, we fully utilize coke oven gas and surplus industrial nitrogen to produce LNG, synthetic ammonia, and related products-converting 100% of coke oven gas into clean energy.

During the reporting period, the LNG output totaled 196,900 tonnes, bringing cumulative production since startup to over 1 million tonnes.



Rizhao Base also harnesses low-grade heat sources for district heating in adjacent municipalities and aquaculture operations, establishing “steel-municipal” and “steel-fishery” ecological industrial chains. By 2024–2025, it can supply 123,000 GJ of surplus heat per year, and once the project is operational, annual external heat supply will reach 2.07 million GJ.

Steel City Base Achieves 100% Waste-Heat Heating. At the Steel City Base, low-temperature waste heat covers heating for 5.5 million m<sup>2</sup>, benefiting around 100,000 residents and saving 77,500 tce annually.



➤ Materials and Packaging Materials

Shandong Steel rigorously enforces steel packaging standards, with each plant developing its own material management/use rules based on packaging quality and business needs. In line with “reduce” and “recycle” principles, the Company cuts packaging consumption by adopting minimal packaging, improving equipment precision, and increasing recyclable material usage. In 2024, total packaging usage stands at about 50,000 tonnes. Key reduction measures include:

Promoting Reduced Packaging

Using high-strength materials to ensure product safety while lowering packaging volume. Subdividing strap lengths cuts overlap and waste.

Enhancing Equipment Control Accuracy

By refining the length/width cutting precision, we reduce overlap and save materials.

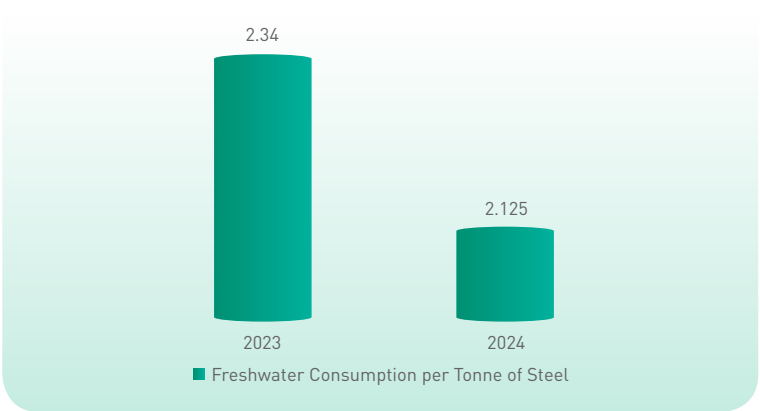
Increasing Recyclable Materials

Through a material substitution strategy, the Company tracks industry trends and expands recyclable packaging usage, elevating reusability rates.

Saving Water and Protecting Our Source of Life

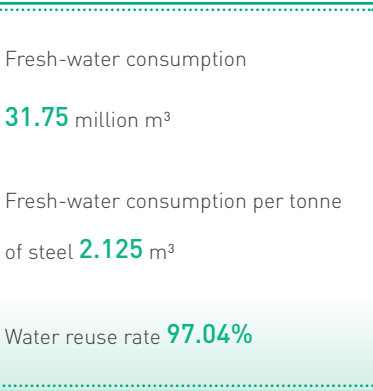
➤ Water Withdrawal and Water Consumption

Shandong Steel practices water conservation, scientific use, and rational consumption. We have formulated *Water System Management Measures* and *Water Supply and Water Resource Management Measures* to ensure compliant water intake and usage. During the reporting period, the Company held a valid intake permit, implemented water-saving measures and projects, enhanced water-use efficiency, and maintained sustainable resource utilization, with fresh-water consumption of 2.125 m<sup>3</sup> per tonne of steel Year-on-year decrease of 9.32%, and a water reuse rate over 97%.



Steel City Base optimized its water intake model and consistently refined its consumption structure-using about 10,000 tonnes/day of reclaimed municipal water and achieving a 98% industrial recycled-water reuse rate. In 2024, total water intake reached approximately 41 million m<sup>3</sup>, of which~11 million m<sup>3</sup> came from self-supplied wells and~10.8 million m<sup>3</sup> from reclaimed sources, fulfilling the plan set by local water authorities.

Rizhao Base conducted water-balance testing, set scientific water-saving goals, and pursued R&D on water-saving. We apply “three dry” water-saving techniques: coke dry quenching, gas dry dedusting of BF, gas dry dedusting of converter-plus BF soft-water closed loops and high concentration cycles, reducing new water intake. Main processes keep a 4–5 concentration multiplier in circulating water. By employing supercritical generator sets with direct seawater cooling and desalination, the Company replaces large amounts of fresh water. Post-desalination water is nearly potable, curtailing surface water usage. Per-tonne steel fresh water usage stands at 1.99 m<sup>3</sup>, maintaining a national leading position in water efficiency.





### Case: Rizhao Base Seawater Desalination Project

Rizhao Base employs reverse osmosis desalination with a 20,000-tonne/d design, diversifying water supply and improving its security, while lowering wastewater generation and contributing significantly to zero wastewater discharge.



### Water Source Protection

Shandong Steel's facilities do not lie within legally designated nature reserves, scenic sites, drinking-water protection areas, or other specially protected zones. Steel City Base is located in the Yellow River Basin, emphasizing surface water and unconventional water to reduce groundwater extraction and safeguard water sources. Going forward, the Company will fully implement the CPC Central Committee's *Opinions on Comprehensively Promoting Ecological Protection and High-Quality Development in the Yellow River Basin*, continuing to tap water-saving potential and contribute to ecological protection in the Yellow River Basin.

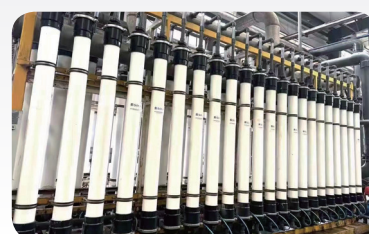
### Wastewater Management

Shandong Steel has formulated *Management Regulations on Wastewater Discharge Control and Supervision and Management Measures for the Operation of Comprehensive Sewage Treatment Stations* in accordance with national laws, adopting source reduction, process control, and cascade wastewater reuse to boost water reuse rates and reduce external discharge. In 2024, we discharged 6.741 million tonnes of wastewater, with COD at 124.43 tonnes, down 6.46% year on year. Our COD and ammonia nitrogen emission intensities were 0.0083 kg/tonne and 0.0002 kg/tonne, respectively, surpassing Level 1 clean-production standards.

Steel City Base Aiming for Zero Wastewater Discharge. To reach zero discharge, Steel City Base applies biochemical treatment, CDRO membrane treatment, and other processes, reinforcing water-saving and cascade reuse for balanced wastewater generation and consumption. The coking plant, special steel plant, and section steel plant have completed rain-sewage separation, achieving zero discharge control. A coking wastewater deep-treatment reuse project (BOO mode), completed in September 2024, uses a "dual-mode + salt extraction" process. First-stage RO product water goes to the circulating system, while concentrated brine is further processed for industrial sodium chloride. Some salt brine undergoes additional treatment to meet slag flushing or coke quenching demand, maximizing wastewater reuse.

### Case: Steel City Base Achieves Zero Wastewater Discharge in the Section Steel Area

We transformed the water output pipeline of the section steel sewage treatment station to fully utilize its treated water. Hourly fresh water consumption fell by 100 t/h, wastewater discharge fell by 85 t/h, saving 876,000 tonnes of industrial fresh water and reducing wastewater by 744,600 tonnes annually, along with 900 tonnes less industrial salt usage, effectively advancing zero discharge in the section steel area.



Rizhao Base follows a "fresh-water source reduction, cascade reuse in processes, wastewater treatment and recycling" pathway, combining decentralized and centralized treatment for deeper wastewater processing. This ensures zero discharge:

**Coking phenol-cyanide wastewater deep treatment:** Integrating "biochemical + ozone catalytic oxidation + reverse osmosis," meeting direct-discharge standards, reusing substantial fresh water in coking, and fully utilizing concentrated brine.

**Acid/oil wastewater deep treatment in cold rolling:** With distinct streams of oil emulsion, leveling fluid, diluted oil, acid waste, coatings, etc., the Company uses a scientifically chosen combination of biochemical, MBR, ultrafiltration, and RO. Reclaimed product water replenishes circulation, and all brine is utilized.

**Comprehensive wastewater treatment plant:** Plant-wide industrial and domestic sewage is collected, desalinated via RO, and the high-quality product water goes to main production. Concentrated brine is used for slag flushing, realizing zero discharge. By classifying users, coupling water quality/quantity, and building buffer facilities, we fully use the standard-compliant effluent for BF slag flushing or converter slag quenching, minimizing fresh water usage.



## Recycling and Enhancing Solid Waste Disposal

### Waste Management

Shandong Steel strictly complies with national laws, including the *Law on Prevention and Control of Environmental Pollution by Solid Wastes* and the *Standard for Pollution Control on the Storage and Disposal Site for General Industrial Solid Wastes* (GB18599-2020). Considering its specific operational context, the Company has formulated the *Measures for Solid Waste Management*, *Measures for Hazardous Waste Management*, *Standards for Hazardous Waste Management*, and *Management Measures for the Disposal of Hazardous Waste and General Industrial Solid Waste Class 1 Materials*, thereby strengthening and refining its solid waste recycling industrial chain and management system. Through source-based waste reduction controls and professional recycling and utilization management, the Company has achieved 100% lawful and compliant disposal or utilization of solid and hazardous wastes, continuously improving resource utilization levels.

In 2024, the Company generated 8.3395 million tonnes of waste, down by 10.5% year-on-year. The utilization rate reached 95.27%. Non-hazardous waste generation was 7.9534 million tonnes, all of which achieved resource recovery or authorized disposal. Hazardous waste generation was 386,100 tonnes, all of which were managed through compliant external disposal.

Total waste generation decreased by **10.5%** year-on-year

The utilization rate reached **95.27%**

| Indicator                            | Unit         | 2023  | 2024  |
|--------------------------------------|--------------|-------|-------|
| Scrap steel recycling rate           | %            | 100   | 100   |
| Waste generation                     | 1,000 tonnes | 9,306 | 8,340 |
| General waste generation             | 1,000 tonnes | 8,935 | 7,953 |
| General waste recycled               | 1,000 tonnes | 8,921 | 7,945 |
| Hazardous waste generation           | 1,000 tonnes | 371   | 386   |
| Hazardous waste of harmless disposal | 1,000 tonnes | 371   | 386   |
| Waste Recycling Rate                 | %            | 95.86 | 95.27 |

## ➤ Solid Waste Recycling and Reuse

Shandong Steel actively promotes a "zero discharge" approach by recycling waste resources internally. The Company utilizes iron oxide scale and scrap steel as main raw materials to foster a powder metallurgy industrial chain, and leverages blast furnace slag and other solid waste resources to build a non-metallic solid waste utilization base centered on building materials production lines. We emphasize the recycling of iron-and carbon-containing resources, greatly improving resource efficiency.

### Rizhao Base

**Rizhao Base** has formulated an action plan for achieving "zero discharge of solid waste," specifying 20 management improvement measures and three key environmental renovation projects. Progress has been made through optimizing steelmaking ladle turnover rates, increasing from 1.6 to 1.8; reducing furnace lining material consumption, decreasing steel slag generation per tonne of steel from 0.142 tonnes to 0.129 tonnes. In August 2024, sludge from rolling water treatment began to be reused; in September, waste emulsion liquid underwent recycling.

### Steel City Base

**Steel City Base** has implemented multiple measures, including steel slag generation reduction, briquetting and recycling of steelmaking sludge and dust, and the high-value utilization of carbon-and iron-containing resources such as coke dust and iron oxide scale. Through optimizing these processes and reusing resources effectively, including recycling fine powder in rotary kilns and coking dust and iron oxide scale, the Company continuously improves the efficiency and level of solid waste recycling and resource utilization.

Established a non-metallic solid waste resource industry chain centered around building materials production lines, utilizing patented technology developed by Academician Xu Delong to construct a slag powder production line. This line utilizes approximately 3.2 million tonnes of blast furnace slag annually, achieving 100% resource utilization.

Realizing 100% eco-friendly recycling of steel slag, the iron-containing steel slag recovered per tonne of steel remained consistently above 0.7 kg, providing strong support for circular economy and reducing steel consumption.

Independently developed technology for extracting graphite carbon from desulfurization slag achieved breakthroughs, becoming the first in China with an annual processing capacity of 100,000 tonnes. This project annually extracts over 3,000 tonnes of industrial-grade graphite carbon with purity meeting or exceeding 90%, enabling high-value utilization of desulfurization slag.

Established processes such as briquetting and reuse of steelmaking dust removal ash, direct reuse of zinc-containing dust through rotary kilns, and recycling dust with fewer harmful elements directly back into sintering. Annually, approximately 750,000 tonnes of various dust and sludge are recycled, achieving 100% recycling of iron-containing waste.



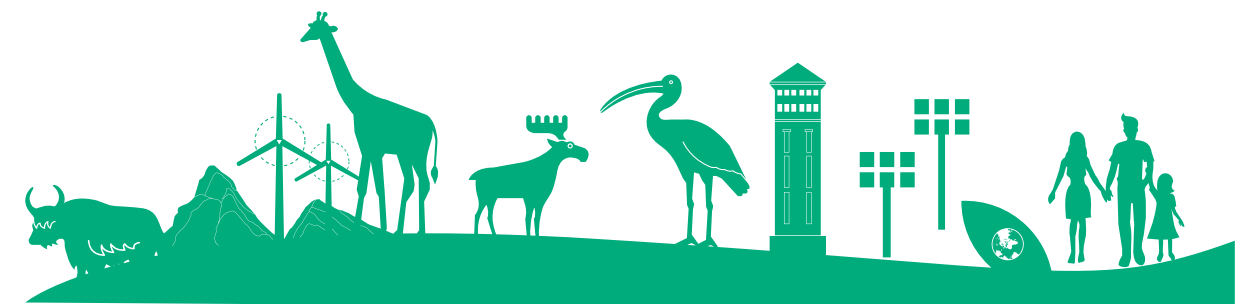
### Case: Cross-Industry Solid Waste Resource Utilization

Shandong Steel actively explores and practices innovative models for cross-industry solid waste recycling, particularly targeting red mud generated in the electrolytic aluminum industry. In 2024, through technological innovation and process optimization, the red mud utilization project was successfully implemented, achieving the utilization of over 100,000 tonnes of red mud. This significantly enhanced the cross-industry recycling of solid waste resources, opening up new avenues for green development.

## Harmonious Coexistence, Safeguarding Biodiversity

Biodiversity underpins human survival and development, closely affecting food security, quality of life, economic progress, and disease prevention. Shandong Steel strictly complies with international, national, and local regulations on biodiversity protection, ensuring all business activities meet regulatory standards and proactively avoiding operations in areas of high biodiversity value. At the same time, we uphold the ecological red-line policy and prohibit construction projects near national ecological protection zones, working concretely to maintain ecological balance.

While pursuing production and operations, the Company aims to build a "garden-style" plant-taking into account the suitability and diversity of plant species, actively organizing tree-planting, accelerating environmental restoration, and greening factory grounds. By 2024, we increased green coverage to 26%.





### Case: Welcoming Spring and Planting New Green-Active Tree-Planting for a Greener Home

In March 2024, the Company organized 100 cadres and employees for a volunteer tree-planting event, cultivating fresh green hopes for a beautiful Steel City. Nearly 3,000 seedlings of 10 varieties (including ginkgo, cherry blossom, and white pine) were planted across 3,500 m<sup>2</sup> of newly greening space.



At the Steel City Base, Dawen River National Wetland Park (AA) represents a prime example of integrated factory-city governance, reflecting a harmonious relationship between the steel industry and the natural environment. The Dawen River Basin is a haven for wildlife-particularly bird species such as white storks, egrets, and mallards that are frequently spotted in the wetland park, vividly illustrating the allure of biodiversity.



### Case: Rizhao Base Invites Citizens to Experience Green Shandong Steel

To further demonstrate environmental results and build a positive social image, in June 2024, the Rizhao Base and Kui'an Community together held an environmental-awareness event in Jinyu Jiayuan Community. We distributed the *Citizens' Code of Conduct for the Ecological Environment (Trial)* and Green Shandong Steel brochures, explaining eco-friendly behaviors and garbage classification. Community representatives, employees' families, and others visited the exhibition hall, Ironmaking Square, Ore Town, and a coastline restoration demonstration site, where the beautiful environment, intelligent production lines, and advanced processes drew wide acclaim for Rizhao Base's environmental accomplishments.



The Rizhao Base leverages its coastal advantage to develop a National AAA Tourist Attraction. Over 120 plant species have been cultivated, attracting more than 20 bird species (e.g., magpies, turtledoves) to settle here, composing a green tableau of "a plant amid forests, and people amid scenery."





03

Society

## Uniting and Building a Harmonious Society Together

True social wealth is not only reflected in the abundance of goods, but also in the fact that everyone can earn a decent living through his or her own labor. This equitable system of distribution is the foundation of sustained social prosperity.

——Adam Smith, *The Wealth of Nations*



- ◆ Innovation-Driven, Unleashing Development Momentum
- ◆ High-Quality Products to Establish the Market and Build a Series of Brands
- ◆ Win-Win Cooperation, Deepening Supply Management
- ◆ Excellent Quality, Forging Customer Value
- ◆ Information Security, Strengthening Data Defense
- ◆ People-Oriented, Building a Better Home Together
- ◆ Putting Safety First, Protecting Occupational Health
- ◆ Caring for Society, Fulfilling Responsibilities





## Uniting and Building a Harmonious Society Together

Shandong Steel actively fulfills its social responsibilities and remains committed to a "user-centered" philosophy. Through continuous R&D innovation and technological advancement, the Company ensures excellent product performance and steadily propels its transformation toward green and intelligent operations. By offering diverse, customized services closely aligned with customer needs and relying on a robust supply chain, Shandong Steel guarantees product quality. The Company also places great importance on employee growth, providing broad career development channel and a comprehensive training system that maximizes employees' potential. In addition, Shandong Steel enthusiastically participates in social welfare activities, contributing to social harmony and progress.

## Innovation-Driven, Unleashing Development Momentum

Shandong Steel embraces an innovation-driven development strategy, furthering the approach of "talent-driven, collaborative innovation, and leveraging intelligence for market success." By continually refining its scientific and technological innovation system, enhancing its R&D capabilities, and accelerating digital transformation, the Company strives to cultivate core competencies with independent intellectual property rights, advance key industries, and stimulate its intrinsic vitality.

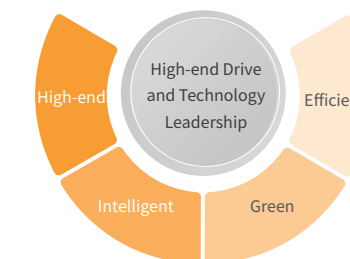


## R&D Innovation System

Shandong Steel has established an integrated R&D and innovation framework, formulating the *Measures for the Management of Science and Technology Innovation Projects* and the *Implementation Plan for Deepening Reforms in the Science and Technology Innovation System* to facilitate resource aggregation and efficient R&D. The Company optimizes its organizational structure, fosters cross-base collaboration, and develops specialized industry experts who actively engage at the frontline to expedite the practical application of scientific achievements. By creating a good atmosphere for innovation and stimulating employees' innovative potential, Shandong Steel infuses sustainable development with new momentum.

### Collaborative Innovation Platform

Following the principle of "high-end drive and technology leadership," Shandong Steel concentrates on both on-site operations and market demands, with an emphasis on four key directions: high-end, intelligent, green, and efficient. The Company increases the proportion of R&D investment, driving high-quality development. It also deepens industry-academia-research-application cooperation, building national, provincial, and municipal multi-level innovation platforms- such as a national enterprise technology center and a Shandong Province academician workstation- and forming joint laboratories and collaborative innovation centers with major universities, institutes, and downstream users. Leveraging these internal and external R&D resources, Shandong Steel realizes collaborative innovation and provides strong support for ongoing sustainability.



In 2024,

the Company invested RMB **2.708** billion in R&D, with **3.3%** of operating income.

During the reporting period, the "Key Laboratory of Advanced Iron and Steel Materials and Processes in Shandong Province," led by Shandong Steel, was approved as a provincial key laboratory. Its mission is to form a holistic innovation pipeline- from basic steel research through technological breakthroughs and on to commercialization- driving the steel industry's green, low-carbon, high-quality development. Additionally, the "Jinan Key Laboratory of Digital Intelligence Steel Technology" was recognized as the 2024 Jinan Key Laboratory, laying a strong foundation for further enhancing the core competencies required to convert scientific achievements into real-world applications.

In 2024, the Laiwu Automation Branch of Shanxin Software was recognized as a "Specialized, Sophisticated, Distinctive and Innovative" SME in Shandong Province.

### Innovative Talent Cultivation

Shandong Steel revised its scientific and technological innovation management policies- such as the *Measures for the Management of Scientific Research Projects* and the *Evaluation and Incentive Criteria for Scientific Research Projects*- improving career development channel for R&D personnel and establishing a multidimensional evaluation system with a performance-based appraisal model. By optimizing its reward framework, the Company spurs innovation and promotes the conversion of scientific achievements. Rigorously observing academic and ethical norms, Shandong Steel consistently undertakes high-quality research and technological innovation, shaping a "tech for good" culture with appropriate safeguards.

Focusing on core, cutting-edge technologies, Shandong Steel fosters top-tier talent development through major R&D initiatives and competitive programs. At present, the Company hosts several specialized teams.

The Rizhao Base Plate Research Institute received the  
**National May 1 Women's Model Post**

User technology application team was honored as a  
**Rizhao Most Beautiful Science and Technology Worker (Team).**

## Scientific, Technological, and Innovative Achievements

To integrate technological and industrial innovation, Shandong Steel harnesses R&D as the key driver of industrial advancement, expanding the practical application of scientific achievements. In 2024, the Company organized 112 science and technology projects, applied for one National Key R&D Project, and obtained one project approval from Shandong Province for scientific research.

### Intellectual Property Protection

Strictly complying with the *Patent Law of the People's Republic of China*, Shandong Steel has implemented internal regulations such as the *Patent Management Measures* and the *Patent and Technical Secrets Management Measures*. Aligning with RSS18005 *Patent Management Standards* for patent filing, examination, and evaluation, the Company prioritizes value creation to guide patent and R&D achievement management. By establishing a system that measures contributions to scientific innovation, Shandong Steel safeguards intellectual property and ensures effective oversight of patents and technological accomplishments. In 2024, the Company applied for 544 patents, including 381 invention patents, and 163 utility models.



Shandong Steel held  
**1,662** valid patents in total



with **979**  
Invention patents

### Industry Standard Setting

In 2024, Shandong Steel led or participated in formulating 22 standards (including 2 industry standards submitted for approval but not yet officially released). Among these, the Company hosted 3 national standards, 4 industry standards, and 8 group standards, while participating in the development of 3 national standards, 2 industry standards, and 2 group standards. Among them, the following two are representative:

Continuing to break through core technologies, Shandong Steel has formed new collaborative models linking upstream and downstream segments of the industrial chain, thereby advancing the standardization and commercialization of innovative outcomes. In the prefabricated steel structure field, the Company co-drafted and finalized the national standard *Hot Rolled Steel for Prefabricated Steel Structure Buildings* (GB/T 43893-2024), aligning material and engineering standards, enabling the adoption of hot-rolled steel in low-carbon, high-efficiency prefabricated constructions, and accelerating rapid industry growth.



The Company also promotes the standardization of advanced processes and inspection methods, furnishing technical support for green, efficient steel industry production. Under Shandong Steel's leadership, the national standard *Determination Method of Assimilation Properties of Iron Ore* (GB/T 43877-2024) provides steel enterprises with unified, scientifically rigorous testing methods for iron ore assimilation. This method significantly optimizes sintering ore blending, enhances sinter strength, cuts costs, and guides the procurement of iron ore.

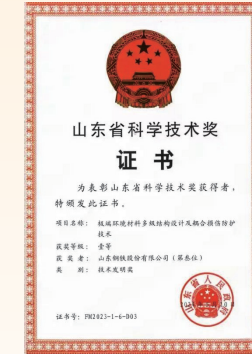
### Scientific and Technological Achievement Awards

In 2024, Shandong Steel earned: 1 Second Prize of the National Science and Technology Progress Award, 44 Metallurgical Science and Technology Awards, including 14 First Prizes; 25 Shandong Province Metallurgical Science and Technology Progress Awards, including 6 First Prizes. 5 awards in the Shandong Province Employee Innovation and Efficiency Creation Competition. During the reporting period, the Rizhao Base received 1 Third Prize in the 11th Huaihai Science and Technology Award and 2 First Prizes in the Rizhao Science and Technology Achievement Awards.



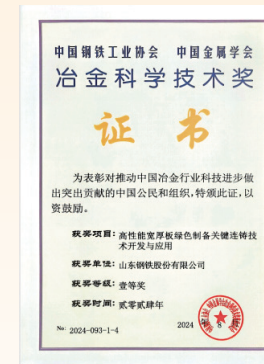
#### Second Prize of the National Science and Technology Progress Award

"Development and Application of Key Common Technology for Electromagnetic Regulation of Large Metal Billet Preparation"



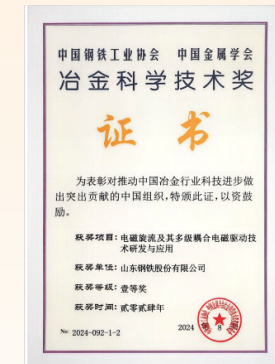
#### First Prize of the Shandong Provincial Technical Invention Award

"Multi-Level Structure Design and Coupling Damage Protection Technology for Materials in Extreme Environments"



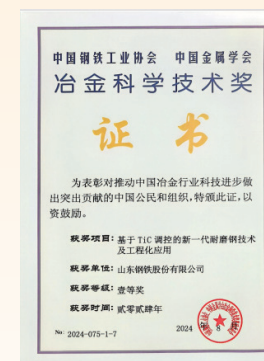
#### First Prize in Metallurgical Science and Technology

"Development and Application of Key Continuous Casting Technology for Green Manufacturing of High-Performance Wide and Thick Plate"



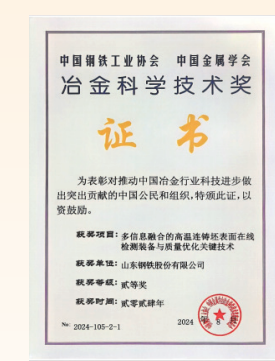
#### First Prize in Metallurgical Science and Technology

"R&D and Application of Electromagnetic Cyclone and Its Multi-Stage Coupled Electromagnetic Driving Technology"



#### First Prize in Metallurgical Science and Technology

"Next-Generation Wear-Resistant Steel Based on TiC Control and Its Engineering Application"



#### Second Prize for Metallurgical Science and Technology

"Multi-Information Fusion of High-Temperature Continuous Casting Slab Surface On-line Inspection Equipment and Key Technologies in Quality Optimization"



In August 2024, Shandong Steel secured 8 awards at the Shandong Province "Elite Talent for a Strong Shandong" Initiative Exchange Exhibition and the 20th Shandong Youth Vocational Skills Competition (Innovation and Efficiency Special Category) Finals. The awards include 1 gold award in the technical innovation category, 3 silver awards in the R&D innovation category, and 4 bronze awards in the technical innovation category.



## ► Innovative Technology Exchange

Shandong Steel is dedicated to forming an open, collaborative chain encompassing innovation, industry, and supply, with the goal of consolidating diverse resources, stimulating innovative energy, and advancing overall industry development. The Company actively participates in and hosts various technical exchange events, conferring with both internal and external partners to discuss steel industry trends, deepen industry-academia-research cooperation, and jointly propel the steel sector's transformation, upgrading, and high-quality development.

### Case: Shandong Province Metallurgical Machinery Industry Chain Innovation Studio Alliance Established at Shandong Steel

In June 2024, the Shandong Province Metallurgical Machinery Industry Chain Innovation Studio Alliance commenced its construction and exchange activities at Shandong Steel, an important initiative to foster industrial innovation collaboration. This alliance aims to dismantle technical barriers among enterprises, create a shared training resource system, and enable "face-to-face" exchanges between supply and demand. By forging a new collaborative innovation platform, members can jointly resolve the technical challenges restricting industry growth.



## High-Quality Products to Establish the Market and Build a Series of Brands

Shandong Steel supports national strategies, key projects, and major engineering initiatives by continually focusing on product innovation. This not only broadens our product portfolio but also raises technological content and added value, contributing significantly to the country's economic development and infrastructure construction. Our products span multiple premium steel categories- such as section steel, special steel, hot-rolled wheel steel, pipeline steel for special service environments, automotive beam steel, and steel for photovoltaic supports. Meanwhile, in the plate segment, high-strength wear-resistant steel, container steel, and ultra-high-strength offshore steel are also crucial directions of innovation.

**Section Steel.** These products find extensive applications in building structures, high-end equipment, engineering machinery, and bridge or tunnel support, positioning the Company as a leading domestic producer of corrosion-resistant and low-temperature-resistant section steel. Shandong Steel has supplied large quantities of specialized H-beams for numerous electrified railway projects in China and participated in formulating relevant national standards. Additionally, we can provide a full range of specialized low-temperature-resistant steel sections for extremely cold regions, with our products successfully applied in significant international engineering projects in the Arctic.

**Plates Segment.** In this segment, we offer customers a broad range of plate products- covering high-strength structural steel, wear-resistant steel, bridge steel, and shipbuilding steel- to meet the requirements of construction, machinery manufacturing, transportation, and other sectors.

**Hot-Rolled Steel.** Our hot-rolled steel products are widely used in automotive manufacturing, oil and gas pipelines, and other fields due to their high strength, excellent toughness, and robust formability. Shandong Steel has successfully developed high-performance offerings such as large-deformation-resistant pipeline steel hot-rolled coils and hot-rolled duplex steel for automotive use, filling industry gaps and meeting market demand for high-quality hot-rolled steel.

**Specialty steel segment.** our products are mainly applied in equipment manufacturing industries such as automotive, construction machinery, railway, and mining equipment manufacturing. We provide specialty steel products compliant with national standards, American standards, industry-specific standards, as well as customized specifications according to customer requirements. Our product portfolio has gradually developed into six major series: gear steel, automotive structural steel, construction machinery steel, steel for wind power and energy applications, bearing steel, and tool and die steel.

**Cold-rolled segment.** our products are characterized by cutting-edge technology and exceptional quality, covering high-precision materials such as pickled coils, cold-rolled coils, and galvanized coils (GI coils), widely used in automotive and home appliance industries. Our products offer outstanding surface finish, dimensional accuracy, and mechanical properties, with consistent quality ensured through rigorous quality control systems. Leveraging advanced production equipment and mature process technologies, we provide customized lightweight and high-strength solutions, driving industrial upgrading.

### Typical Products

- **Hot Stamping Steel:** Used in hot-stamping processes, which- compared with cold stamping- can produce ultra-high-strength automotive body components. Featuring excellent formability, high dimensional accuracy, and high strength, hot-stamping steel is one of the top choices for lightweight automobiles.
- **DH Steel:** An enhanced-formability dual-phase steel that excels in meeting automotive lightweighting and safety standards. Compared with traditional dual-phase steel, DH steel more readily fulfills the requirements for producing complex, high-ductility parts; compared with TRIP steel, it features lower alloy costs. It can be broadly utilized in hood inner and outer panels, door outer panels, A-pillars, front longitudinal beams, and many other components.
- **High-Strength Wheel Steel:** Attaining the highest domestic level in cold-forming processes, this steel exhibits outstanding welding and fatigue performance and is widely used in manufacturing 29.5 kg lightweight commercial vehicle wheels.
- **High-Strength Corrosion-Resistant Steel Strip:** Q550NQR1 is primarily applied in railway carriage plates and stands as the highest grade in the Railway Carriages with Atmospheric Corrosion-Resistant Steel standard, offering high strength, excellent low-temperature impact toughness, and atmospheric corrosion resistance. Suited to extreme climates, it reduces vehicle weight and extends service life, reflecting the industry's "green, low-carbon, lightweight" development trend.
- **Pipeline Steel:** Combining high strength, good toughness, weldability, and stable formability, pipeline steel uses a low-carbon micro-alloy design and controlled rolling/cooling processes- "using water instead of adding costly alloy elements"- to minimize alloy consumption and comply with green manufacturing. It is extensively used for transporting crude oil, refined oil, natural gas, synthetic gas, coal water slurry, and other media on land and at sea.

### Case: Section Steel for Bridges and Building Structures

Shandong Steel leads in developing Q345qE/qD H-beams and channel steel for bridges, demonstrating robust technological innovation. Backed by strong technical guarantees, we have effectively solved performance homogeneity challenges- achieving Z-direction performance  $\geq 50\%$  and a yield ratio  $\leq 0.80$  for high-rise building steel- ensuring stability and safety under complex stress. These products are widely applied in numerous major construction projects at home and abroad, including landmark bridges such as Padma, Changtai Yangtze River Bridge, and Tongzi River Bridge under the "Belt and Road" Initiative, as well as the National Stadium (Bird's Nest), Beijing Winter Olympic Stadium, Daxing International Airport, Hong Kong-Zhuhai-Macao Bridge, the Urumqi Ring Road Bridge, and the Changshen Expressway Bridge. With their excellent quality and performance, Shandong Steel has earned two Third Prizes of the Shandong Provincial Science and Technology Progress Award, garnering high recognition within the industry.



### Case: Assisting Major National Projects with High-Quality, High-Strength Rebar

The Company leads domestic R&D and production of 600–635 MPa high-strength seismic rebar (specifications  $\Phi 12$ – $\Phi 32$  mm), employing V/N ratio control to raise strength and seismic performance. Using 600 MPa hot-rolled seismic rebar in large public buildings and civil defense underground projects can save 20%–30% in steel and cut costs by over 15%. For instance, the Wuhan Dongxihu Sports Center fully leveraged the advantages of this high-strength rebar to achieve notable green and economic benefits. Additionally, these products are widely used in the Daya Bay Nuclear Power Station, Pudong International Airport, the Three Gorges Project, and the National Stadium (Bird's Nest), the Qingdao-Lianyungang Railway, Jiaozhou Airport, the Pingtan Bridge in Fujian Province, Haier Real Estate, and other large structures.



### Case: Crawler Profiles

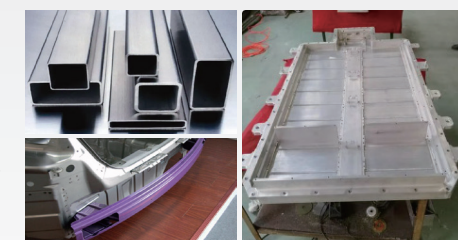
Shandong Steel independently developed Fore-Rolling digital simulation technology, reaching an internationally advanced level. We offer seven series of triple-tooth, double-tooth, and single-tooth crawler plates (L3W135/154/171/175, L3S190/216, L2W228) featuring excellent performance, including a hardenability bandwidth controlled within  $J1.5 \leq 8HRC$ , hardness  $\leq 255HB$ , and a decarburization layer  $\leq 0.5$  mm. Our products serve leading enterprises such as Sany, XCMG, and Shantui.

Focusing on breakthroughs, the Company introduced China's largest-spec 317 single-tooth track plate, ending foreign monopolies in the field. We also won the Second Prize of the Metallurgical Science and Technology Award and led the development of industry standard YB/T 5034 *Hot Rolled Profiles for Crawler*, showcasing our leadership and technical strength in crawler profiles.



### Case: Martensitic Steel with Tensile Strength Above 1000 MPa

The company has successfully developed martensitic steel with tensile strength levels above 1000 MPa, specifically the CR700/980MS and CR950/1180MS grades. This achievement fills the gap at the Rizhao Base for ultra-high-strength steels suitable for cold forming. These steel grades are characterized by high strength and low production cost, mainly applied in lightweight commercial vehicles. With the growth of the new energy vehicle market, these steels have gradually found applications in battery packs, significantly supporting the lightweight development of commercial vehicles and new energy vehicles.



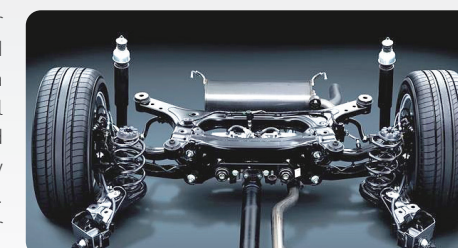
### Case: Successful Development of Q500qE High-Grade Bridge Steel for World-Class Construction

Shandong Steel successfully developed Q500qE high-grade bridge steel, bridging the gap in mass application of top-level bridge materials in China. This product was deployed at the Qingyun-Zhangqiu Expressway Yellow River Bridge project. With outstanding performance meeting various specialized requirements, it not only raises China's bridge construction standards but also strengthens national infrastructure efforts.



### Case: Steel for Automotive Structural Parts

Shandong Steel has achieved remarkable results in steel for automotive structural parts. Our quenched and tempered steels have been certified by SAF-Holland, Daimler-Benz, Dana Incorporated, and Shaanxi Automobile Group, meeting global high-end standards. Meanwhile, non-quenched steels, certified by ThyssenKrupp, have entered the EU market and are used by Volvo, Volkswagen, and BMW, earning worldwide recognition. Non-quenched steel also received the "Golden Cup Award" for metallurgical product quality.



On the innovation front, we hold 11 authorized invention patents and actively participate in setting national and industry standards to facilitate industry progress. Addressing challenges with sulfur-containing steels, the Company developed Ca-Mg composite treatment technology to overcome technical bottlenecks and enhance steel quality. By regulating sulfide morphology, the lateral impact toughness and machinability of non-quenched steel are substantially improved, further suiting high-end automotive manufacturing needs.

### Case: Breakthrough in Large-Deformation-Resistant Pipeline Steel Hot-Rolled Plate, Boosting National Energy Construction

The Company successfully developed a large-deformation-resistant pipeline steel hot-rolled plate, addressing the industry shortfall in producing such materials on hot rolling lines and providing a solid foundation for national oil and gas pipeline construction. These products were applied in the seismic rupture zone of the second phase of the Shaanxi Natural Gas Tongbaitong Project, demonstrating excellent performance and stability, and yielding significant economic and social benefits. This achievement represents an important step forward in China's high-end pipeline steel materials sector.





## Win-Win Cooperation, Deepening Supply Management

Shandong Steel attaches great importance to stakeholder rights and interests, devotes itself to building a stable, sustainable supply chain system, and leverages digital platforms to foster an efficient cooperative environment. By jointly assuming green development responsibilities with suppliers, the Company achieves win-win growth with its partners.

### Supplier Management System

The Company strengthens the management effectiveness of its supply chain system and advances the construction of its procurement framework. It strictly complies with the *Bidding and Tendering Law of the People's Republic of China* and other relevant laws and regulations, comprehensively optimizing the Sunshine Purchasing and Sales Management Information Platform to ensure all operations remain legal and compliant. Relying on the core resources of SISG, the Company is committed to building an integrated supply chain collaboration, innovation, and development service platform that ensures solidity, trust, and sustainable, healthy growth across the supply chain.

#### Supplier Management Mechanisms

The Company implements responsible supply chain management, having successively revised *Management Measures for Material Procurement (Trial)*, *Management Measures for Material Quality Objections*, and other relevant systems. Adhering to the principles of "transparency, standardization, and efficiency," we have built a healthy, sustainable supply chain ecosystem encompassing multiple dimensions: diversified supplier sourcing, systematic assessment, rigorous credit evaluation, precise grading, and a fair penalty mechanism. From supplier admission- undergoing strict evaluation and review- through to exit management, the Company enforces full-process oversight and closed-loop administration to ensure supply chain vitality.

The Company comprehensively evaluates and categorizes suppliers into five grades- A, B, C, D, and E- based on assessment results. Among these, 167 suppliers are priority-level (A), 1,637 are regular-level (B), and 175 are in Class C. Class D indicates unqualified status (restricted or probationary), and Class E is prohibited. If the evaluation result is D or E, the Company revokes the supplier's qualified status. In 2024, we conducted evaluations on 14,142 contracts/orders (covering 1,979 suppliers) with an excellence rate of approximately 8.5%.

**167** Priority-level (A) suppliers

**1637** Regular-level (B) suppliers

**175** Class C suppliers

#### Supplier ESG Management



##### Green Procurement

The Company prioritizes adopting energy-conserving and environmentally friendly new technologies and processes, as well as selecting suppliers with strong social responsibility awareness, in its procurement decisions. Requirements related to "ESG and social responsibility awareness" are included in supplier admission assessments and annual evaluations. Going forward, we will gradually establish a green procurement system, incorporating carbon footprint requirements into procurement as needed, reinforcing environmental standards for suppliers, and encouraging the entire supply chain to fulfill environmental and social responsibilities.



##### Supplier Due Diligence

In 2024, the Company conducted supplier due diligence to analyze environmental and social risks, including environmental management and occupational safety issues, as well as potential violations or administrative penalties involving taxation, environmental protection, and work safety. Based on the risk analysis results, we apply tiered controls and perform on-site audits to evaluate supplier performance. During the reporting period, over 500 suppliers underwent annual due diligence audits.

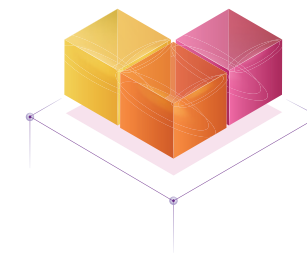
In 2024, 60% of the Company's suppliers obtained certifications in quality management, environmental management, and occupational health and safety management systems.

## Supply Chain Risk Management

The Company incorporates supply chain risk management into its corporate development strategy, aiming for stability, efficiency, and reduced risks. We have formulated and issued the *Notice on Adjusting the Approval Process of Sunshine Purchasing and Sales Platform*, the *Notice on Standardizing the Management of Bidding and Public Procurement Evaluation Process*, and the *Notice on the Management and Operation of Raw Material Suppliers on PLMS*, continuously standardizing business processes. Through market research, supplier assessments, logistics monitoring, and digital platforms, we identify, evaluate, supervise, and respond to supply chain risks, ensuring timely and effective risk management to comprehensively prevent supply chain vulnerabilities.

### Responsible Minerals Management

The Company has a strict supply chain management system to ensure all raw materials and components come from legal, reliable sources. We commit not to using any conflict minerals and require suppliers to pledge that their products do not contain conflict minerals from high-risk areas.



### Supplier Integrity

The Company and its partners collaboratively build a "transparent and open" industrial supply chain, organizing the signing of Integrity and Honesty Agreements to emphasize commercial ethics and uphold the bottom line of honest, trustworthy operations. In 2024, we held five joint integrity-building sessions with suppliers, achieving a 100% signing rate of integrity agreements and promoting social responsibility concepts in environmental protection, safety, health, and anti-corruption. This fosters mutual improvement in quality and shared integrity.

### Procurement Digitalization Platform

The Company advances procurement digital transformation, leveraging the centralized procurement scale of both SISG and China Baowu Steel Group. By relying on digital procurement platforms- such as the Sunshine Purchasing and Sales Management Information Platform, Raw Material Procurement and Logistics Management System (PLMS), Procurement Supply Chain System (PSCS), OBE E-shopping, and OBE Mall- we efficiently coordinate the centralized procurement of bulk raw materials, fuels, spare parts, and engineering equipment, achieving resource sharing, transparent purchasing, cost reduction, and enhanced efficiency. This strengthens risk management and improves overall supply chain service quality.



Rizhao Base Intelligent Control Center



## Protecting the Rights and Interests of SMEs

The Company employs a unified e-procurement platform with open operations and controlled processes. We continuously standardize platform procurement practices to ensure compliance with established standards and procedures. In procurement, the Company treats suppliers in good faith and provides equitable opportunities for SMEs to participate. Simultaneously, we respond actively to the Regulation on the Protection of Payments to SMEs, making prompt payments to SMEs and safeguarding their legitimate rights and interests.

## Industry Exchange and Development

### Internal Coordination

The Company fully leverages internal resources, enhancing business synergy and cooperation. We continuously deepen close collaboration with the China Baowu Steel Group procurement system and internal enterprises of SISG, improving resource synergy and structural optimization. In 2024, the Company's production bases and SISG's internal enterprises collectively promoted 35 synergy projects. Additionally, the Rizhao Base Raw Material Procurement Center and Baosteel Raw Material Procurement Center achieved effective resource sharing, joint market analysis, and simultaneous bidding and procurement, increasing overall operational efficiency.

### Case: Industrial Products Procurement Integration Management Promotion Meeting and Entrustment Management Agreement Signing Ceremony

In December 2024, Shandong Steel held an integration management promotion meeting for industrial product procurement and signed an entrustment management agreement. This collaboration leverages OEI's professional advantages in procurement management, enabling shared resources, channels, and talent between both parties. The Company attaches great importance to this agreement and looks forward to further optimizing steel procurement costs, improving procurement efficiency, enhancing supply chain service quality, and strengthening risk management via this partnership.



### External Collaboration

Shandong Steel strives to strengthen synergy and cooperation with suppliers, customers, and partners, enhancing supply chain responsiveness through information sharing, resource integration, and process optimization. We also explore supply chain financial services, providing financing support for suppliers to reinforce collaboration and linkages throughout the industry chain, jointly building a supply chain ecosystem that fosters win-win development.

### Industry Exchanges

The Company actively organizes and participates in various industry activities, focusing on sector development hotspots and our own business needs. This approach promotes an environment of mutual learning and collective progress, injecting fresh momentum into the steel industry's high-quality development.

### Case: Shandong Steel Jointly Hosted a Steel Structure Industry Supply-Demand Matchmaking Meeting

In November 2024, Shandong Steel and Ouyeel co-hosted the 2024 Annual Steel Structure Industry Supply-Demand Matchmaking Conference, aiming to build an industry chain exchange platform, facilitate in-depth dialogue and collaboration between the supply and demand sides, explore new models of industry cooperation, and seek future development opportunities. It was also a key initiative to establish a collaborative innovation ecosystem and promote high-quality development of the industry.



### Case: Rizhao Base Participated in Shandong Province's 2024 "Ten Chains, One Hundred Groups, Ten Thousand Enterprises" Advanced Iron and Steel & Supporting Industries Chain-Fusing Exchange

In December 2024, Shandong Province organized the 2024 "Ten Chains, One Hundred Groups, Ten Thousand Enterprises" advanced iron and steel and supporting industries chain-fusing exchange in Rizhao. The Rizhao Base released its latest scenario cooperation lists, product matching demands, and technical improvement procurement requirements. The "Ten Chains, One Hundred Groups, Ten Thousand Enterprises" special action aims to enhance the driving force of "chain-master" enterprises, pulling upstream and downstream partners to accurately build, supplement, extend, and strengthen the supply chain. This significantly bolsters the stability and competitiveness of the industrial and supply chains, fueling high-quality economic development.





## Excellent Quality, Forging Customer Value

Shandong Steel upholds a quality philosophy that "Quality Creates Premium Products, Premium Products Support Brands, and Brands Create Value." We formulate quality standards consistent with sustainable development goals, implement full-staff, full-process quality control, and continuously enhance product quality. By cultivating and expanding a brand matrix founded on reliable quality, the Company delivers high-quality products to its customers.

### Quality Management

#### Management System Construction

The Company has issued quality management regulations such as *Product Quality Management Measures* and *Product Quality Objection Rectification Management Measures*, formulating or revising a total of 38 technology-oriented quality management regulations. These include new management measures for major production technology breakthroughs, revised standards for quality accident grading, and improved change grading management, thereby further refining the overall quality management system. Meanwhile, grounded in IATF 16949, GB/T 19001, and other standards, we defined the general requirements, guidelines, objectives, and management responsibilities in our *Quality Management Manual*. By implementing a four-tier quality management system tree and performing risk identification and controls on key processes and activities, the Company meticulously plans its quality management system, achieving full-staff and full-process quality oversight, improving product quality, and strengthening our brand matrix.

#### Product Quality Certification

In 2024, the Company completed renewal audits for the ISO 9001 Quality Management System and the IATF 16949 Automotive Industry Quality Management System, and obtained the Hazardous Chemicals Production License, along with renewal audits for the China Classification Society and EU quality management systems. We also passed two supervision audits under the British Standard CARES for rebar, a JIS section steel renewal audit, CMT MC rebar product supervision and standard conversion audits, Russian GOST renewal and expansion audits, Japan Classification Society anchor chain steel renewal audits, American Bureau of Shipping anchor chain steel and section steel renewal audits, EU CE certification, an Italian Classification Society H-beam steel certification, and 16 other product certifications in total.


The Steel City Base received laboratory accreditation from the China National Accreditation Service for Conformity Assessment (CNAS), indicating that its product reliability laboratory meets ISO 17025 management system standards. This provides strong technical support for the quality assurance of Shandong Steel's products and R&D innovation.



#### Fine Control of Product Quality

In line with our principle of integrated quality management, the Company continuously advances quality management innovation. We have formulated control measures across the entire chain of user demand identification, order review, product design, process control, interface management, logistics, warehousing, and transportation, always prioritizing user satisfaction. Through these optimized quality management practices, we maintain highly stable product quality. In 2024, our scrap, defect, and spot-sales rates all outperformed the annual targets.

|  |   |
|--|---|
| <br>Process Quality Supervision and Audit                 | The Company has built a comprehensive "quality gate" management system covering crucial steps from incoming raw materials to production, logistics, and warehousing, with 5,014 "quality gates" and 137 processes in total, shifting from mere result evaluation to real-time process monitoring. We've also established a process quality inspection system that strengthens oversight throughout raw material intake, manufacturing processes, and product production.  |
| <br>Promoting Ultra-Stable Product Quality                | The Company introduced an <i>Action Plan for Ultra-Stable Quality Control of Products</i> , emphasizing precise process control, extremely stable quality indicators, and an excellent user experience, supported by daily monitoring, weekly reviews, and monthly evaluations. Adhering to user satisfaction as the core standard, we continue to implement a "one customer, one product, one table" method to maintain ultra-stable product quality.  |
| <br>Carrying Out Supplier Quality Management             | The Company revised <i>Management Measures for Material Procurement</i> , clarifying supplier management requirements and issuing <i>Management Rules for Suppliers of Bulk Raw Materials</i> . This ensures product quality is controlled from the source and that hazardous substances are monitored and regulated, guaranteeing full compliance with prohibited and restricted substance standards.  |
| <br>Product Quality Assessment and Research             | The Company carries out product quality evaluations and diagnostics, formulating and implementing the <i>2024 Quality Improvement Planning Program</i> and organizing dedicated quality-improvement initiatives to enhance cross-process quality control. We also launched the " <i>Fighting Crisis, Seeking Survival</i> " <i>Quality Problem Elimination Special Action</i> , effectively lowering the incidence of quality issues.   |
| <br>Improving the Product Recall and Improvement System | The Company standardized its customer complaint mechanism by issuing <i>Management Measures for Defective Goods</i> , <i>Management Measures for Rectification of Product Quality Objections</i> , and <i>Management Measures for Objections to the Quality (Measurement) of Iron and Steel Products</i> . We also established a customer demand database to promptly relay feedback to relevant departments, formulate improvement plans, and elevate product and service quality. In 2024, we visited customers over 310 times, compiled 186 issues, enhanced service awareness, boosted user loyalty, and achieved a 100% complaint resolution rate. |

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- ▶ "Tempered High-strength Oil Storage Tank Steel Plate for Large Heat Input Welding" was listed among the "Made in Shandong · Qilu Excellence Products."
  - ▶ "Innovation and Practice of Digital Quality Control in the Whole Process of Iron and Steel Enterprises" won the Second Prize of the Quality Technology Award from the China Quality Association.
  - ▶ Low-alloy high-strength structural hot-rolled H-beam steel products were selected as part of the first batch of "Spring City Good Products" in Jinan, further enhancing Shandong Steel's brand image.
  - ▶ "High-Temperature Continuous Casting Slab Surface Online Inspection and Quality Optimization System" was included in the Jinan New Quality Productivity Digital Scenario Recommendation List.

### Case: Rizhao Base Intelligent Quality Control Scenario Selected as a 2024 Industry and Information Technology Quality Improvement & Brand Building Example

The Company follows the principle of "quality first, customer first, and high-quality products," implementing a "big data-driven intelligent quality management" approach. Throughout the entire data and production process, we set multiple key quality checkpoints, applying intelligent means at each control point to monitor factors that affect quality- persons, machines, materials, methods, environment, and measurement- so that product quality remains stable and meets user demands. This case of "Implementing Big Data-driven Intelligent Quality Management" was recognized as a typical example of quality improvement and brand building in the 2024 industry and information technology sector.

#### Building a Quality Culture

The Company aligns with quality management system standards to provide multi-level quality management training, conducting Six Sigma management, green product certification, centralized integrated quality management, and "Quality Month" activities. These efforts drive quality culture establishment and reinforce our quality management foundation. In 2024, we organized nine quality-related training programs, with 9,993 participants joining the Total Quality Management Knowledge Contest.

- Six Sigma Advanced Training: A comprehensive analysis of Six Sigma fundamentals, core principles, practical tools, and implementation steps empowers employees to effectively apply Six Sigma methods in daily tasks, accurately identifying and resolving quality issues to significantly elevate product and service quality.
- Quality Control Centralized and Consistent : We implement unified management of quality, production, contracts, planning, and materials, ensuring every stage- from raw material entry to finished goods shipment- is effectively monitored.
- Training Green Product Certification: The Company conducts training on green product certification processes, covering key evaluations such as environmental performance, resource consumption, and pollutant emissions. By achieving green certifications, we showcase an eco-friendly brand image and strengthen market competitiveness.

### Case: "Quality Month" Activities Enhance the Quality Management System

During the 47th "Quality Month," we carried out a variety of promotional activities to expand quality management system implementation and continually heighten employees' quality awareness and competence. At the Steel City Base, this encompassed strengthening on-site standardization, supplier support, key equipment controls, strict final inspections, and a "quality fault-finding" campaign that rewarded effective suggestions, motivating employees to participate in quality improvement. Meanwhile, the Rizhao Base introduced "One Agreement, One List, One Center" initiatives, pursuing "three zeros" (zero production deviations, zero product defects, zero user complaints) and offering multi-dimensional quality training. By conducting special audits, reinforcing 4M (man, machine, material, method) controls, and assigning 13 specific quality-improvement projects with clear responsibilities, we fortified our respect for quality and ensured customer satisfaction.

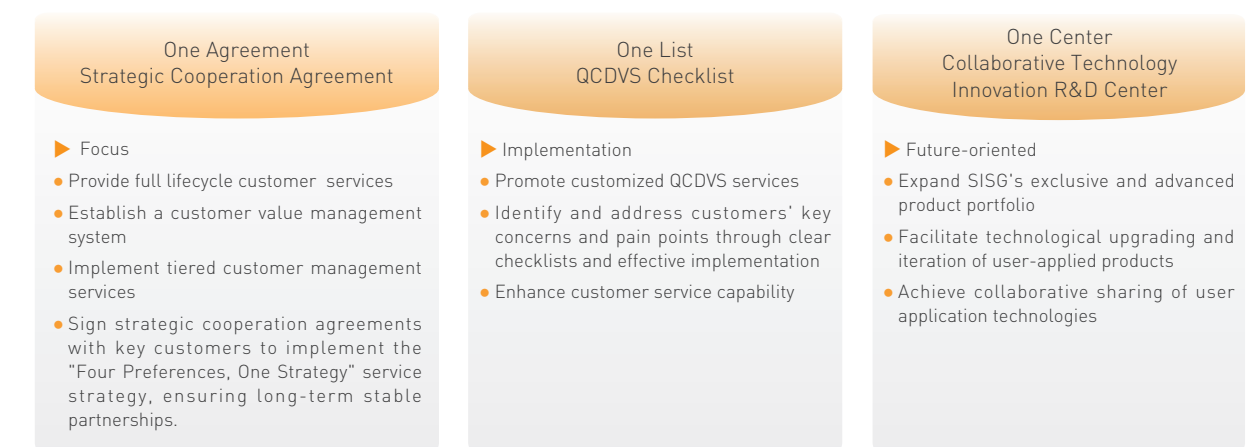


#### Customer Service

Shandong Steel continuously refines customer service, deepens user needs identification, improves the service experience, and creates a win-win customer service system.

#### Customer Service System Construction

Upholding a "user-centered" philosophy, Shandong Steel has formulated customer service regulations, such as Customer Service Management System, Management Measures for Customer Classification and Maintenance Strategies, and Management Measures for Customer Visits, to build a highly efficient and outstanding customer service framework. To reinforce synergy and improve service quality, we optimized our marketing organization, restructured departmental roles, and established a collaborative framework for customer service. Focusing on customer needs, the Company leverages advantages in marketing, production, and R&D, continuously implementing a "One Agreement, One List, One Center" cooperation model to earn user trust with high-quality services and deepen partnerships that foster a safe, efficient, and sustainably developing steel industry ecosystem.



The "One Agreement, One List, One Center" New Service Model

#### Optimizing the Customer Experience

Visiting customers is key to enhancing the user experience. The Company adopts an account manager responsibility system, strengthens user visits, formulates annual and monthly visit plans, emphasizes high-level marketing, and efficiently resolves customer needs. By 2024, we had conducted 925 visits to strategic key users.

Shandong Steel practices experiential marketing, offering free product trials for key end users so they can directly experience our products' superior quality and unique value. We maintain close communication with customers, address feedback in a timely manner, and continually explore personalized needs to ensure tailor-made product and service experiences. During the reporting period, there were no major safety or quality incidents related to our products and services.

### Case: Optimizing Customer Service Experience—Deep-Processing and Distribution Bases for "Last Mile" Service

The Company deepens its three-level service system by continually improving process technology, product quality, and delivery capability to meet the personalized needs of users, such as processing and distribution. Shandong Steel's section steel plant, in collaboration with Laigang Group, has established a deep-processing and distribution base that integrates sorting, processing, and distribution, thereby bridging the "last mile" of user service. This initiative provides professional deep-processing services for home appliance and automotive users, further enhancing the overall customer service experience.





## • Responding to Customer Feedback

The Company enacted an *After-sales Service Management System* and other feedback-handling mechanisms, standardizing complaint processes, response times, and related measures. For product quality objections and similar issues, we devised appropriate handling procedures and a rapid channel for quality objections, assigning specialized departments to address these concerns and ensuring a 100% resolution rate.

Upholding the concept that "customer demand is our pursuit," *Shandong Steel introduced a Customer Satisfaction Enhancement Program* and launched a "Customer Satisfaction Project," building a three-tier service system and applying the "Four Excellences and One Policy" classification service. In 2024, the Company scored 90 points in customer satisfaction assessment, adopting stratified quota sampling across five dimensions- brand image, marketing effectiveness, product quality, service experience, and customer needs- to accurately capture user perspectives.

**Complaint Channels** Official websites and product warranties carry after-sales service hotlines. Account managers also provide feedback and tracking via the customer management system and IMC integrated marketing platform, enabling convenient, real-time updates on complaints and timely user feedback.

**Rapid Response** We respond to customer objections within 8 hours, arrive on-site within 3 working days for in-province clients (5 working days for out-of-province), conduct investigations and evaluations, and negotiate a resolution plan with the customer.

**Complaint Handling** Centered on customer needs- "the customer's demand is our pursuit, the customer's standard is our standard"- the Company prioritizes customers' legitimate interests and ensures robust protection of their rights.

**Follow-up Visits** After resolving quality objections, we conduct return visits to rate satisfaction regarding complaint channels, response speed, outcomes, timeliness of resolution, and after-sales personnel quality. We also listen to further feedback and continuously enhance problem-solving efficiency and service quality.

## • Customer Rights Protection

Shandong Steel highly values customer privacy protection and has established a comprehensive customer property management program. This program clarifies sensitive information types (technical agreements, order contracts, customization agreements, intellectual property) and defines detailed protective measures to prevent information leaks and maintain data security. During the reporting period, the Company recorded no customer data leaks or network information security incidents.

We consistently practice responsible marketing, formulating and enforcing relevant systems in a lawful, compliant manner. The Company strictly follows honest operations and fair competition principles to provide customers with high-quality products and services, cultivating a healthy, sustainable market environment. In 2024, we strengthened our marketing team training by organizing multiple thematic lectures and compliance sessions, reinforcing compliance management and supervision to guarantee the legality and standardization of marketing activities. During the reporting period, no incidents infringing customer rights or interests occurred.

Looking ahead, Shandong Steel will focus on upgrading its services, continuously building a mutually beneficial user service system; emphasize system optimization to raise marketing management standards; and concentrate on team capacity-building to enhance the overall competencies of all employees.

### Case: Honored as "2019-2024 Excellent Supplier" by Anhui HELI Co., Ltd.

In November 2024, Shandong Steel was named "2019-2024 Excellent Supplier" by Anhui HELI Co., Ltd. at its 2024 Supplier Conference. The two parties have cooperated for over twenty years, forming a "strong alliance" through high-level visits and diverse interactions. The Company has successively completed the R&D and mass production of dozens of product specifications- such as C- and H-type steel- for Anhui HELI, helping its products expand globally, and expanded their cooperation scope to forklift beam series. This honor underscores Anhui HELI's trust in Shandong Steel's consistent quality, ongoing innovation, and efficient services, laying a solid foundation for deeper collaboration, market exploration, and industry development.



### Case: Recognized as a "Gold Medal Supplier" by China Shipbuilding Group Co.

On November 15, 2024, Shandong Steel received the "2023 Gold Medal Supplier" title at the Modern Supply Chain Construction (Supplier) Conference of China Shipbuilding Group Corporation (CSGC), marking the second consecutive year of this honor. This reflects CSGC's acknowledgment of both parties' deep collaborative relationship and affirms the Company's ongoing efforts in technology, quality, and service. Since 2022, they have actively explored partnership models aligned with lightweight, eco-friendly shipbuilding trends, advancing ship plate upgrades and new product development. Going forward, Shandong Steel will continue providing high-quality products and professional services, remain committed to innovation, and collaborate with partners to push the industry forward.



### Case: 2024 Overseas Section Steel Seminar

In April 2024, Shandong Steel hosted a seminar for key overseas section steel customers, inviting them to discuss cooperation, seek collective growth, and shape a shared future. Internationalization is a dominant trend in China's steel industry and a strategic imperative for the Company to become a world-class enterprise. Going forward, Shandong Steel will uphold an open posture, actively introduce world-class equipment and technologies, continuously refine value creation capabilities, and strive to become a globally renowned steel materials manufacturer and comprehensive service provider. Working with all partners, we will tackle challenges, chart a development blueprint, and create a better future with higher-quality products and services.



Information Security: Building a Solid Data Barrier

Network information security is a key factor in ensuring stable operations and sustainable development for enterprises. Shandong Steel continues to refine its information security governance and management system, strengthen relevant institutional frameworks, and enhance data protection and control measures to comprehensively prevent information security risks. Meanwhile, we emphasize safeguarding trade secrets, establishing a solid defensive line for information security.

Building the Organizational System

The Company has established an Informatization and Intelligent Manufacturing Management Committee, fully responsible for implementing and executing policies on informatization and intelligent manufacturing. To further reinforce information security control and ensure data integrity, availability, and confidentiality, we are optimizing our information security governance and management system. Looking ahead, the Company plans to develop a data governance system to strengthen information security measures even further.

Improving System Construction

Shandong Steel complies with the *Data Security Law of the People's Republic of China*, the *Personal Information Protection Law of the People's Republic of China*, and other relevant legislation, implementing a strict data security management system that covers data classification, full lifecycle management, monitoring and early warnings, emergency handling, and accountability. Currently, the Company is revising its network security and data security management regulations to build a comprehensive information security management framework. In 2024, we completed our first data classification and grading program and filed our data directory. Meanwhile, the Rizhao Base achieved Level 3 certification under the DCMM (Data Management Capability Maturity Model).

Preventing Information Security Risks

The Company continuously enhances data security risk prevention by organizing data classification, grading, and network security training sessions, which enhance employees' awareness of data security and customer privacy protection while effectively boosting their ability to avert information leakage risks.

In 2024, we adopted both online and offline approaches to conduct information security training and related programs, upgrading employees' professional competencies and practical skills in data security and network management.



Training on data security



Training on network control capabilities

People-Oriented, Building a Better Home Together

Shandong Steel upholds the principle that "talent is the foremost resource, and talent superiority is the core corporate advantage." We strengthen our talent team construction, continually optimizing recruitment, training, promotion, and employee care. In doing so, the Company creates a workplace environment conducive to comprehensive talent development.

Governance

The Human Resources Department functions as the primary division for human resource planning, recruitment and allocation, compensation and benefits, employee training, and so on. Each enterprise under the Company assigns personnel specialists to handle relevant tasks, safeguarding employee rights and interests.

Strategic Initiatives

Embracing a "talent-first" principle, the Company implements a human resource strategy focused on creating a high-level talent team for the steel industry, ensuring a sufficient workforce with an optimized structure and solid professional qualities. We build a market-oriented employment and labor organization model, enhance talent introduction, training, and performance assessments, and promote labor-sharing mechanisms. By applying scientific job design, talent mapping, and flexible talent recruitment, Shandong Steel energizes human resources and elevates operational efficiency. Simultaneously, we refine talent management and quality-improvement systems, regularly evaluating risks and opportunities and crafting responsive solutions to establish a strong foundation for high-quality growth.

| Employee Rights & Benefits and Career Development | Policy and Institutional Safeguards   |
|---|---|
| Recruitment and Assessment                        | <i>Measures for Managing the Introduction of Talents</i><br><i>Management of Employee Performance Appraisal</i>   |
| Remuneration and Benefits                         | <i>Employee Post and Benefit Salary System</i><br><i>Scheme Measures for the Administration of Employees' Working Meal Subsidies (Trial)</i><br><i>Management of Kindergarten Fee Reimbursement for Children of Employees</i>   |
| Promotion and Development                         | <i>Management of Staff Career Development (Trial)</i><br><i>Ten Measures to Vigorously Discover, Cultivate, and Select Outstanding Young Cadres</i>   |
| Talent Cultivation                                | <i>Implementation Program for the Enhancement of the Quality and Competence of All Staff in 2024</i><br><i>Opinions on the Implementation of the "Youth Promotion Program" for Cultivating Young Talents</i><br><i>Measures for the Administration of Occupational Skill Level Evaluation</i><br><i>Measures for the Management of External Experts</i> |

Risk and Opportunity Identification

We develop scientific risk control strategies by regularly evaluating risk sources in talent recruitment, employee turnover, and performance management. By optimizing our recruitment process, offering career advancement opportunities, and reinforcing performance appraisal systems, the Company enhances employee satisfaction and loyalty, ensuring a stable talent strategy that effectively mitigates talent risks and provides a robust human resource guarantee for ongoing development.



| Risk and Opportunity Identification | Risks   | Opportunities  | Measures   |
|-------------------------------------|---|--|--|
| Attrition Risks                     | The steel industry faces challenges retaining skilled workers and senior management. Heightened market competition demands higher remuneration, while unique industry characteristics mean key positions may be hard to fill, risking the loss of innovative talent and R&D capabilities. This can erode competitiveness and innovation capacity. | In recent years, large steel enterprises have expanded scale and synergies through M&As. The Company seizes this chance to attract more top talent and boost overall competitiveness.  | Create comprehensive mechanisms for talent cultivation and introduction, strengthen collaboration with universities/research institutes, and foster a healthy corporate culture and atmosphere-boosting employees' sense of belonging and loyalty.   |
| Talent Structure Mismatch           | The steel industry's green and intelligent transformation requires a diverse talent mix (technology, management, sales, etc.), but the current structure is relatively homogeneous, struggling to meet these diverse needs.   | As the industry accelerates toward green, low-carbon, and eco-friendly development, Shandong Steel can intensify recruitment and training of environmental technology specialists, promoting sustainable growth. Meanwhile, intelligentization and digitization define the industry's future. By actively attracting and nurturing talents in these fields, the Company drives intelligent upgrades, digital transformation, greater efficiency, and improved product quality. | As the industry accelerates toward green, low-carbon, and eco-friendly development, Shandong Steel can intensify recruitment and training of environmental technology specialists, promoting sustainable growth. Meanwhile, intelligentization and digitization define the industry's future. By actively attracting and nurturing talents in these fields, the Company drives intelligent upgrades, digital transformation, greater efficiency, and improved product quality. |



● Employee Rights and Benefits



The Company abides by the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, and other relevant statutes, continually refining its employee management system. We emphasize both morality and skill, promote diversity and equal opportunity, forbid discrimination of any kind, oppose forced labor or harassment, prohibit child labor, and ensure fair treatment for employees of all nationalities, races, genders, religions, and cultural backgrounds. In 2024, the Company effectively safeguarded employee rights, recording zero human rights complaints, no major labor disputes, and no child labor.

As of 2024, we employ 16,031 staff, with 88.5% male and 11.5% female; 91 minority employees (0.57% of the total). Our turnover rate is 0.57%, and labor contract coverage is 100%.



The Company has instituted a standardized talent recruitment management process, ensuring strict confidentiality of personal data (e.g., resumes) throughout recruitment, evaluation, and remuneration procedures. In accordance with the law, we sign labor contracts and provide the agreed-upon work conditions and wages. By continuously refining and optimizing the "introduce, nurture, select, store, and retain" talent mechanism, we build a high-caliber workforce aligned with our high-quality development. The Company also intensifies scrutiny during talent intake to ensure top graduates, creates multiple platforms for diverse talent roles (especially high-tech and skilled personnel), and implements an annual performance appraisal for outsourced staff. This flexible approach to bringing in talent seeks to maximize resource allocation and usage.



Aligned with our talent development strategy, the Company applies a scientific compensation structure that closely links an employee's remuneration to their position and grade, adhering to "post changes mean salary changes." We run comprehensive performance assessments with objective, fair standards, establishing performance-based pay according to our performance appraisal system and outcomes, thus ensuring equity, incentivizing value creation and sharing, and energizing the organization.

The Company offers robust employee welfare policies, paying social insurance and housing funds as mandated by law, along with enterprise annuities and supplementary medical insurance- ensuring employees have "six insurances and two funds": pension insurance, medical insurance, unemployment insurance, supplementary medical insurance, work injury insurance, maternity insurance, plus housing provident funds and enterprise annuities. We strictly follow legal provisions for female employees' pregnancy and maternity leaves, protect their rights, provide statutory allowances (e.g., work meal subsidies, heatstroke prevention fees), arrange routine health checkups, and reimburse kindergarten fees for employees' children. We also ensure employees have adequate rest, paying overtime wages for statutory holidays as required by law. In 2024, the Company achieved 100% coverage in social insurance, and employees averaged 9.5 days of paid leave.



By broadening diverse channels for democratic communication and refining the democratic management system, the Company covers grassroots staff representative conferences fully, offering employees additional opportunities to engage in corporate governance and express opinions. We established two-way communication mechanisms (e.g., employee forums, satisfaction surveys) to gather wide-ranging input and continuously improve processes. In 2024, we implemented 66 proposals from employee representatives, achieving 100% response and 100% employee satisfaction.

Career Development

The Company enhances its rank management system and standardizes qualification requirements and procedures for employee promotion by clarifying job sequences, establishing a career development mechanism, and implementing cadre assessment measures.

Promotion and Development

Based on the nature and scope of each role, the Company divides positions into three sequences: management, technical/business, and operation/maintenance. We offer a vertical and horizontal career channel that grants equal advancement opportunities for all employees in different roles. The Company strictly enforces a cadre assessment and evaluation process, actively identifying, cultivating, and selecting outstanding young cadres through annual recommendations and secondments, providing a fair competition platform for them to excel.

To form a high-caliber workforce for the steel industry, Shandong Steel implements a talent echelon initiative, focusing on four groups: senior operational managers, high-level technical/business experts, highly skilled operators/maintainers, and a robust pool of young successors. By refining talent development mechanisms, optimizing the growth environment, and enhancing the overall quality of our talent teams, we provide essential intellectual support for the steel industry's high-quality development. Simultaneously, the Company remains committed to creating an environment that nurtures both personal and professional growth, using a "talent chain" to reinforce the "innovation chain" and elevate the competitiveness of the "industry chain."

Staff Training

Adhering to the principle of "strengthening the enterprise by nurturing talents," the Company deepens its talent-focused strategy and reinforces employee education and training. The Human Resources Department aligns training plans with employees' skill advancement and job requirements, defining training content and methods by category and level, developing an effective training curriculum, upgrading the Boutique Lecture Hall 2.0 and training bases, and bolstering training outcomes. Concurrently, we conduct vocational skill-level evaluations, intensify "multi-skilled" management, and improve independent appraisals, providing a strong human resource foundation for high-quality development.

We continually enhance our digital learning platform, launching an upgraded Boutique Lecture Hall 2.0, with each employee logging an annual average of 88 hours of online self-directed learning. Shandong Steel also values constructing and optimizing practice bases- upgrading electrical and mechanical training facilities and developing a blast furnace simulation system- to achieve "precise empowerment" and quickly raise employees' skill levels through practical learning. Meanwhile, we encourage talent exchange and learning by arranging job rotation training for 105 core professionals at benchmark enterprises in 2024.

Placing great emphasis on craftsmanship, the Company devised the Management Measures for the Selection of Craftsmen, focusing on frontline employees and adhering to the principle of "public recognition, selecting the best of the best." Through a bottom-up, step-by-step process, we identify and cultivate outstanding craftsmen, fostering a "knowledge-based, skill-based, and innovative" pool of highly skilled talents and opening a fast track for their development.

In 2024

Approximately RMB **95.04** million yuan invested in employee training

Yielding **4.1** million total training hours

**100%** coverage in employee training

**100%** coverage in professional skill training

**100%** coverage in leadership training



Case: Shandong Steel Excels in the First National "Red Flag Cup" Team Leader Competition

From August 20-21, 2024, the inaugural national "Red Flag Cup" Team Leader Competition Finals took place in Changchun, Jilin Province. In the fiercely contested "Steel Track," Shandong Steel performed exceptionally well, placing five team leaders in the nation's top ten. Among them, Yang Chengwei, leader of the section steel electrician group at our Energy and Power Plant's Electric Repair Workshop, claimed second place in the "Steel Track."

Shandong Steel consistently emphasizes talent cultivation and innovation-driven development, actively creating an innovation evaluation system aligned with employees' personal growth needs. We treat workplace innovation and improvement as key criteria for career path creation, occupational grade assessments, performance evaluations, and compensation design, encouraging employees to explore, innovate, and surpass themselves. So far in 2024, Shandong Steel's 45 innovation studios for model workers (craftsmen/high-skilled personnel) have launched 87 innovation projects and devised 44 training and exchange programs, injecting strong momentum into both company innovation and talent development.



Case: 2024 National Steel Industry Vocational Skills Competition Held at Rizhao Base

From December 11-13, 2024, the National Iron and Steel Industry Workers' Vocational Skills Competition convened at the Rizhao Base. Local employees Li Chenglong, Zang Junjie, Zhou Yingnan, Chen Hongchuan, and Zhuang Qianga earned first prizes in Converter Steelmaking and Thick Plate Rolling, while Chen Guangjiao, Li Shaoshuai, Li Zhao, and Zuo Jinjun at the Steel City Base clinched second prizes. Rizhao Base also received a Special Contribution Award. The Company leveraged this event to deepen a culture of "respecting knowledge, skills, and talent," inspiring employees to grow on the job, improve their technical capabilities through practice, and infuse the steel industry with renewed vitality.



In 2024:

- 2 employees received State Council allowances
  - 3 became Taishan Industry Leading Talents
  - 1 was named Shandong Province Technical Skill Master
  - 1 received the "Qilu Master Craftsman" honor
  - 1 became a "Qilu Craftsman"
- 4 were appointed Qilu Chief Technicians
  - 2 joined the 2024 MIIT Manufacturing Talent Support Program
  - 2 were recognized as National Iron and Steel Industry Skilled Workers
  - 2 became "Hai You Plan" industry-leading talents in Jinan
  - 2 obtained Rizhao City Chief Technician titles
  - 2 gained recognition as Rizhao City Innovative Talents



### Case: Rizhao Base Establishes Employee Empowerment Center

In May 2024, Rizhao Base held an inauguration ceremony for its Employee Empowerment Center, furthering industrial workforce reform, advancing the new-era talent development strategy, and building a high-quality employee team. Occupying 1,000 square meters, the Center comprises a Craftsman Lecture Hall, a Qilu Craftsman Innovation Workshop, an Intelligent Manufacturing Innovation Research Room, a Safety Experience Center, a multimedia training room, and a multi-functional classroom. Blending skill training, competition, innovation research, and simulation, the Center precisely elevates employees' skills while gathering a knowledge-based, skill-based, and innovative industrial workforce. This initiative empowers the Company's high-quality growth.



### Case: The Company Participates in the "Shagang Cup" 11th National Steel Industry Vocational Skills Competition

In September 2024, Shandong Steel organized a team for the "Shagang Cup" 11th National Iron and Steel Industry Vocational Skills Competition. Wang Xubo from our Ironmaking Plant placed 15th in the Blast Furnace Ironmaking Worker category, earning the title "National Iron and Steel Industry Skilled Worker," while Shandong Steel received an "Excellent Organization Award." This competition covered four occupations- blast furnace operator, metal rolling operator, electrician, and crane operator- and combined theoretical tests, practical operations, simulations, and VR troubleshooting. After three days of intense contests, all four of Shandong Steel's entrants ranked within the nation's top 30.



### Employee Care

Employees are the most valuable asset of any enterprise. Shandong Steel maintains close alignment with its employees through the "Happy Heart · Work-Benefit" service initiative, continuously improving the employee service and support system, upholding legitimate employee rights, and fostering a happy, harmonious workplace. By forming union alliances, delivering assistance and relief, expanding inclusive cultural and sports events, and offering psychological support, the Company ensures mutual growth for employees and the enterprise.

**Employee Assistance and Relief:** Through the "Ecosphere Labor Union Chairman's Alliance," the Company collaborates to expand employment channels for employees' families. Centering on the "Happiness and Harmony Practical Project," we continue upgrading the "three rooms, one hall, and one institute" facilities and promoting supplementary medical insurance plus honorary retirement for employees. We also implement a "special targeted assistance line, daily relief and warmth line, mutual aid security line, supplementary medical care line, serious illness green channel line, and quality-of-life benefit line," conducting programs like "Spring Job Delivery, Summer Cooling, Golden Autumn Student Aid, Winter Warmth, and Single Employees Support."



In 2024, trade unions at all levels of the Company visited and provided comfort to **308** distressed employees and their families, distributing **613,000** CNY in relief funds and **544,700** CNY of summer cooling supplies. Completed the 2024 Golden Autumn Student Aid program.

Providing **148,000** CNY in financial assistance.

Annual universal benefits for union members reached **1,100** CNY per person.

**Women's Care:** By signing and enforcing the *Special Collective Contract for Special Rights and Interests of Female Workers*, the Company carried out diverse protective activities for women workers' unique rights, boosting their legal awareness. We organized 21 lectures and law-to-enterprise publicity events for 1,638 female employees. Following President Xi Jinping's instructions on family education, women's union organizations at each level hosted 16 "Cultivating Good Family Traditions- Women in Action" events, covering 1,642 participants. We also encouraged female workers to participate in labor contests, technical competitions, and universal job innovation, with 524 total involvements; 155 female employees advanced technical skill levels, 27 received professional titles through assessments, and 14 upgraded their academic credentials. The Company launched a "Mom's Hut" upgrading campaign- improving spaces and facilities, broadening functionality, and establishing 10 "Mom's Huts" by the end of this reporting period. We perform biannual screenings for "two cancers" in female workers, investing 3.1495 million CNY and benefiting 3,394 women employees.



The Steel City Base has one National May 1 Women's Model Post (the Water Treatment Team in the Steelmaking Plant) and three female employees honored as National May 1 Women's Model Workers.



Rizhao Base won two model posts recognized as National "May 1" Women's Model Posts and Shandong Province "May 1" Women's Model Posts, respectively.





**Humanistic Care:** Shandong Steel formulated and released the "Huixin · Empowerment" *Mental Health Services Implementation Opinions*, striving to create a "Party and government-led, union responsible, targeted services, employee-benefitting" pattern for workplace mental health. Each unit fully utilizes facilities like the "Mind Harbor" Mental Health Service Center, Employee Empowerment Center, Employee Health Station, Women's Home, and the Baolan Tea Bar, organizing team counseling, individual psychological support, themed lectures, and group-building events. In 2024, the Company conducted 21 employee health lectures, physical fitness checks, and mental health trainings, while arranging rest and recuperation activities for 193 front-line employees, model workers, and craftsmen. We also upgraded our Zhao Shilong and Yang Lei model worker innovation studios, further enhancing employees' happiness index.

**Cultural and Sports Activities:** The Company carefully plans and organizes a variety of cultural and sports events, including Lantern Festival fairs, walking and mini-marathons, and online/offline "cloud walks." We formed a tug-of-war team that participated in the 2024 National Tug-of-War Championships, winning the men's 600-kg category and finishing third in both the men's 640-kg and the mixed 580-kg categories. Meanwhile, 16 cultural and sports associations (e.g., basketball, badminton) held an array of activities, significantly enriching employees' cultural lives.



"Locomotive Cup" Staff Basketball Tournament



"Ironmaking Cup" Staff Badminton Competition



"Plate and Strip Cup" Women's Air Volleyball Competition



Company Walks-Cross-Country Running and the 12th Employee Culture & Sports Festival Launched

### Indicators and Performance

In 2024, Shandong Steel focused on comprehensively boosting talent competitiveness and innovation capacity, deepening human resource reforms, implementing balanced training that emphasizes professional skills and holistic quality, building an appraisal and distribution mechanism driven by results, and reinforcing innovation studios. These efforts provide a solid talent foundation for the Company's sustainable development, ensuring that talent-building achievements effectively translate into performance gains and stronger market competitiveness.

| Indicator   | Unit      | 2024   |
|---|-----------|--------|
| Total number of employees                                   | Person    | 16,031 |
| Number of male employees                                    | Person    | 14,181 |
| Number of female employees                                  | Person    | 1,850  |
| Number of employees aged 30 or younger                      | Person    | 2,018  |
| Number of employees aged 30-50                              | Person    | 9,556  |
| Number of employees aged 50 or older above                  | Person    | 4,457  |
| Number of ethnic minority employees                         | Person    | 91     |
| Number of employees with disabilities                       | Person    | 41     |
| Percentage of employees with disabilities                   | %         | 0.26   |
| Employee turnover rate                                      | %         | 0.57   |
| Turnover rate of male employees                             | %         | 0.48   |
| Turnover rate of female employees                           | %         | 0.09   |
| Amount invested in employee work safety liability insurance | RMB 1,000 | 555    |
| Amount invested in employee work injury insurance           | RMB 1,000 | 22,212 |
| Employee work injury insurance coverage                     | %         | 100    |
| Signing rate of labor contracts                             | %         | 100    |
| Proportion of employees covered by collective agreements    | %         | 100    |
| Number of labor dispute cases                               | Item      | 0      |



| Indicator   | Unit      | 2024      |
|---|-----------|-----------|
| Number of discrimination and harassment incidents   | Item      | 0         |
| Training ratio of employees for anti discrimination and opposition to human rights violations | %         | 100       |
| Social insurance coverage   | %         | 100       |
| Total number of female employees on parental leave  | Person    | 158       |
| Return rate and retention rate of female employees on parental leave                          | %         | 100       |
| Number of assisted employees in difficulty  | Person    | 352       |
| Number of paid annual leave days per capita   | Day       | 9.5       |
| Employee satisfaction   | %         | 100       |
| Annual investment in vocational training  | RMB 1,000 | 95,040    |
| Employee training coverage  | %         | 100       |
| Total training hours  | Hour      | 4,102,890 |
| Training hours per capita   | Hour      | 99        |
| Percentage of employees receiving regular performance and career development reviews          | %         | 100       |

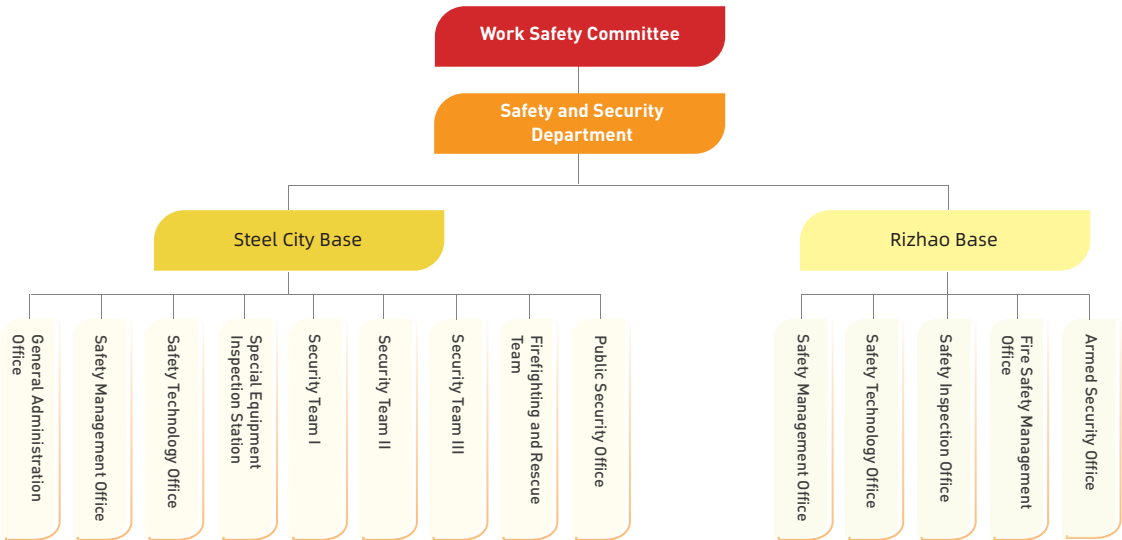
Looking Ahead, Shandong Steel will continue strengthening our cadre and talent teams by building a scientific cadre echelon, delivering sustained energy for high-quality development. We will promote personnel efficiency improvements in a coordinated manner and implement an assessment/incentive mechanism that fully spurs employee enthusiasm and innovation. The Company will deepen salary and insurance management, enhance employee welfare and rights protection, and continually consolidate synergy for high-quality growth. We will further refine talent cultivation and growth systems, deepen talent team building, and solidify the enterprise development foundation.

Safety First, Protecting Occupational Health

Shandong Steel continuously refines its health and safety management system, strictly implements safety responsibility protocols, and bolsters production safety defenses, effectively safeguarding the occupational health and safety of employees and stakeholders.

Governance

The Company has formed a Work Safety Committee, serving as the highest authority for occupational health and production safety decisions and deliberations. Under it, six specialized safety committees operate, while the Safety and Security Department oversees day-to-day safety management. Production units assume local safety responsibilities, enforcing a traceability mechanism and adopting “one position, one responsibility list; one position, one evaluation.” We formulated the *Work Safety Supervision and Management Measures*, linking evaluation outcomes to annual safety award assessments and further enhancing managers’ safe performance capabilities.



Strategic Initiatives

Occupational health and safety objectives are integrated into the Company’s strategic planning, examined and approved by the Work Safety Committee, then translated into implementation plans and allocated resources. The Safety and Security Department regularly monitors and evaluates progress, adjusting plans based on feedback to address future challenges and promote sustainable growth.

Health and Safety Management System

The Company upholds “life first, safe development,” rigorously abiding by safety regulations, advancing a three-year plan to address fundamental safety risks, and applying an all-staff safety responsibility system. We strengthen the principles of “one post, two responsibilities” and “three management, three musts,” continuously executing safety risk classification, hazard investigation, and risk prevention mechanisms, fully protecting employees’ occupational health and establishing a robust safety defense for stable operations.

To provide institutional assurance for safety, we have built a comprehensive work safety management framework. In 2024, we revised 67 measures- including the *Measures for Supervision and Management of Work Safety of Relevant Parties*, the *Measures for Management of Work Safety Training and Education*, the *Measures for Safety Management of Major Hazard Sources of Hazardous Chemicals*, and the *Measures for Safety Management of Hazardous Operations*- and introduced 59 new systems, such as the *Measures for Managing Commitments to Work Safety*, the *Measures for Managing Work Safety Reporting, Rewards, and Issue Resolution*, the *Regulations on “Morning Meetings” for Work Safety*, and the *Management Standard for Work Team Safety Activities*.

We closely integrate our safe production management system with the Company's development strategy and manage it strictly per occupational health requirements. In 2024, Shandong Steel obtained ISO 45001 and OSHMS occupational safety and health management system certifications.



During the reporting period, the Steel City Base maintained its Grade 2 safety standardization status, while the Rizhao Base successfully attained a Grade 3 safety standardization rating.



### ● Firefighting and Emergency Management

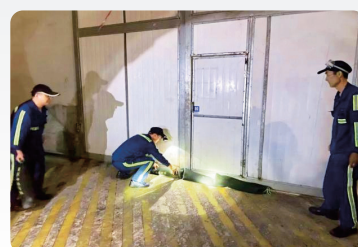
By establishing emergency management organizations, standardizing emergency processes, formulating emergency response management systems, and conducting drills, the Company has effectively enhanced its emergency response capabilities and safety management. In 2024, we revised our comprehensive emergency plan, 47 specialized emergency plans, and 410 on-site disposal plans, providing solid institutional support for emergency management. Simultaneously, we optimized the hierarchical management of key firefighting areas and bolstered the periodic assessment and updating of emergency plans, ensuring their currency and applicability.

The Company held **5,040** emergency drills

Over **94,966** participants

#### Case: Rizhao Base Implements Flood and Typhoon Emergency Plan

The Rizhao Base carried out special inspections for flood and typhoon control, updated its flood and typhoon emergency plan, identified 27 key flood-prone locations, and promptly activated relevant procedures. Monthly flood-prevention meetings were convened to address critical issues, achieving the target of safe operations during flood season.



#### Case: Jinan Steel Enterprises' Gas Leakage Emergency Drill Held at Steel City Base

In June 2024, a gas leakage emergency drill for Jinan's steel enterprises was conducted in the new area of the Steel City Base's Steelmaking Plant. Following real-world practice standards, the drill simulated a pipeline rupture of gas purification and recovery, aiming to advance "Safety Production Month" efforts, improve emergency responsiveness at city steel enterprises, and validate the *Comprehensive Emergency Plan for Production Safety Accidents* and the *Special Emergency Drill Plan for Gas Leakage Accidents in Steelmaking Plants*. It also tested emergency teams' coordination and employees' risk prevention and self-rescue capabilities.



### ● Related Party Management

Shandong Steel reinforces regional synergy, strictly observing the "Four Uniform" guidelines for managing relevant parties. We issued the *Safety Performance Evaluation Program for Collaborating Units*, rigorously implementing performance evaluations, performance-based scoring, and thorough inspections, promoting standardized safety teams among partners. Meanwhile, we supervise processes diligently by formulating the *Provisions on Handling Safety Accidents and Violations by Cooperative Suppliers*, improving "no-entry" management for partner units/personnel, concentrating on site management and operational behaviors, employing differentiated oversight, and emphasizing high-risk operations. In this way, Shandong Steel ensures partner personnel safety at all times.

### ➤ Risk and Opportunity Management

Shandong Steel is dedicated to establishing a robust safety risk management system to strengthen its risk resilience. Adhering to a scientific risk management philosophy, we confront, identify, and evaluate risks, enhancing our capacity to extract value from risk identification. The Company defines its primary safety risk management objectives: ensuring production safety, reducing potential accidents, and improving employees' safety awareness.

| Risk and Opportunity   | Response  |
|--|---|
| Increased industry competition: The iron and steel sector is fiercely competitive, and some organizational reforms / personnel efficiency measures may sometimes overlook safety, pressuring the Company's safety management.  | Deepen root-cause risk management, fostering an intrinsic safety framework. Perform comprehensive risk re-identification and assessment across all processes. For new organizational or personnel changes, compile risk identification lists and corresponding controls.                |
| Stricter safety & environmental requirements: Heightened regulatory mandates require greater investment in safety/ environmental facilities, possibly diverting attention from safety oversight. Facility operation/maintenance may also introduce new safety risks. | Strengthen safety integration in design/planning. Adhere to "three management, three musts" so that from project inception through equipment and process stages, safety standards are respected.  |
| Weak staff safety awareness: Some employees display insufficient safety consciousness, take chances, or fail to follow safe operating procedures, leading to hidden accident risks.  | Refine safety standardization. We enhance training/ education for all staff, increasing engagement, relevance, and effectiveness. Through extensive awareness and educational programs, employees fully understand and comply with safety norms.  |
| Inadequate supervision: Gaps in safety checks and insufficient oversight may fail to detect/remove all hazards promptly.   | Accurately target major hazards, enhance process oversight, implement "one hazard, one policy," and build a durable hazard detection and rectification framework integrated into regular, specialized, and seasonal safety inspections, ensuring dynamic elimination of hidden dangers. |

### ● Strengthening Safety Risk Control

The Company constructs an efficient risk control system by bolstering source-level prevention, optimizing risk identification, and continually upgrading our control capabilities. We strictly enforce hidden danger inspections, intensify prevention against "three violations," and eliminate numerous concealed hazards, establishing a sturdy foundation for safe production and sustainable progress.

Deepening  
Project  
Control

We rigorously apply the "three simultaneities" (safety design, safety facilities, safety acceptance) in construction projects, completing safety and occupational health reviews/ final acceptance for key initiatives (e.g., the Steel City Base's converter-continuous casting project under the new/old kinetic energy transformation). In response to sulfur-laden waste gas pipelines at the coking plant, we introduced desulfurization processes to remove accident risks. The Rizhao Base finalized "three simultaneities" for its top-and-bottom combined CO blowing converter project.



Deepening Hazard Rectification

Following a problem-oriented approach, the Company addresses process, equipment/facilities, personnel operations, and work environments. We backtrack operational, procedural, systemic, and managerial vulnerabilities to uncover how hidden issues evolve into accidents, transitioning from outcome-based to source-based control.

In 2024, we identified and resolved **6,787** hidden hazards, achieving **100%** coverage and **100%** rectification.

Deepening Fundamental Safety Improvement

We enacted a three-year action plan to tackle underlying safety issues, maintaining a stable mechanism of "eliminate existing hazards by end-2024, reduce incremental hazards by end-2025, and achieve dynamic zero major accidents by end-2026." Meanwhile, we effectively implement "human, technological, engineering, and management" defenses for major risks, raising our intrinsic safety standards.

Deepening Lean Risk Control

The Company practices "energy flow, manufacturing flow, value flow, and equipment status" refined management to prevent volatility in energy systems, averting equipment/production accident risks at their source.

Deepening Intelligent Safety Management

Emphasizing intrinsic safety, we systematically replace outdated equipment to remove fatigue hazards. We also promote R&D and usage of "mechanization replacing labor, automation reducing labor, and intelligent unmanned" solutions. Via "AI+Internet," the Company built a cloud-based intelligent safety production control platform, implementing fundamental safety measures like remote operations and human-machine isolation to eliminate hazards at their root.

- Risk Monitoring and Early Warning System: We have set up a safety risk monitoring and early warning system, achieving real-time detection and alerts for **21** areas and **1,303** data points of major equipment (e.g., blast furnaces, converters, refining/electric furnaces, gas systems), thereby enhancing risk prevention.
- Remediation of Dangerous Operations: Through video surveillance, drones, and other methods, the Company intensifies oversight of risky tasks (heights, hot work, etc.), identifying and correcting over **6,000** issues or hidden hazards, effectively reducing accident risks.
- Enhancing Intrinsic Safety: In the reporting period, we bolstered intelligent safety in high-risk areas, implementing **20+** intrinsic safety projects (e.g., a safety monitoring system on metallurgical cranes, an SIS for a **300,000** m³ gas holder, an online safety monitoring system for rail vehicles), significantly improving equipment safety. We also took the lead in completing a safety production monitoring and early warning system, plus an intelligent supervision platform for welding, ensuring our safety management remains current.

Occupational Health Management

The Company highly prioritizes employees' occupational health and adopts the *2024 Occupational Disease Prevention and Control Plan*, ensuring employee health and safety via various measures. In 2024, we organized 542 health checkups for transferring or departing staff, completed occupational health checks for 13,885 employees, performed 4,000+ hazard measurements (e.g., heat, noise), and attained annual occupational disease prevention goals. Additionally, we vigorously promote healthy workplace initiatives, improving environments, enhancing employee welfare, and safeguarding occupational health for sustained development.

|         |   |  |                               |
|---------|---|--|-------------------------------|
| In 2024 | 542   | 13,885   | 4,000                         |
|         | Organized health checkups for transferring or departing staff | Completed occupational health checks for employees | Performed hazard measurements |

|         |   |  |
|---------|---|--|
| In 2024 |   |  |
|         | • Coverage in occupational health checkups  | • Licensing of special operations personnel                    |
|         | • Detection of occupational hazards   | • Health checkups for toxic/hazardous positions                |
| 100%    | • Compliance with the "three simultaneities" requirement for safety and occupational health | • Safety training coverage for employees and relevant partners |
|         | • Completion of special equipment safety checks   | • Workplace occupational hazard testing                        |

Safety Culture Building

The Company embeds a "people-oriented" safety ethos into every facet of our culture, building a comprehensive, multi-layered safety culture and a dual-level prevention framework by focusing on quality enhancements, talent development, and echelon building in safety education. In 2024, we hosted numerous training activities- such as leadership workshops for workshop heads- under the theme "Everyone Talks Safety, Everyone Practices Emergency-Unobstructed Life Paths." Our focus included quality-improvement training, hazard exposure, rectification bulletins, case-based warnings, emergency drills/inspections, safety consultation days, and performance checks. By delivering "precision training" and "targeted training," aligned with different operational procedures and risk points, we constantly elevate employees' safety awareness and emergency capacity, joining forces to create a safe, healthy, and harmonious working environment.

|   |  |
|---|--|
| Invested <b>3.11</b> million CNY in safety training | Totaling <b>2,265,481</b> hours of safety training |
| <b>188,912</b> Participants                         | <b>100%</b> Safety training coverage               |

We established a one-time reward mechanism for personnel taking the Registered Safety Engineer exam, motivating employees to gain certification and improve their safety competencies. In 2024, 350 employees took this exam.

### 2024 Safety Culture Initiatives

- ▶ Enhancing Somatosensory Safety Training: Utilizing our Safety Body-Sense Center as a new training hub, we organized simulations (work at height, CPR, virtual fire extinguishing, VR accident scenarios) for key posts and cooperating personnel.
- ▶ Strengthening the Safety Management Team: We cultivated high-caliber internal trainers and deployed key personnel for cross-base supervision/inspections to exchange know-how and enhance capacity.
- ▶ Grassroots Key Safety Skills Training: We conducted specialized training for operation-area directors, team leaders, and safety managers, improving frontline managers' (including partner teams) safety consciousness and capabilities.
- ▶ Promoting the "Five-in-One" Safety Pocket Handbook: The Rizhao Base compiled pocket handbooks for each operator post, so employees "know responsibilities, recognize risks, master operations, conduct investigations, and handle emergencies."
- ▶ In-Depth "Safety Production Month" Publicity: Through safety pledges, VR experiences, etc., we broadly disseminated safety knowledge and culture.
- ▶ The Company organized safety training for all employees, covering topics such as work safety responsibilities, hazard identification, and emergency response procedures. In 2024, a total of 260 security personnel at the Rizhao Base underwent this safety training.



✪ In 2024, the Steel City Base and Rizhao Base each won an "Excellent Organization Award" at Shandong Province's Safety Law Popularization Knowledge Contest. Rizhao Base's "Safety Culture System Construction and Application (Comprehensive)" earned a "Best Enterprise Safety Culture Practice" from the Ministry of Emergency Management's Publicity and Education Center. Meanwhile, the "Xianghai Tuqiang Team" from Shandong Iron and Steel Group Rizhao Co., Ltd. claimed third place in the final of Shandong's "Skill Prosper Shandong" Vocational Skills Competition and the 20th Shandong Youth Vocational Skills Competition.



### ➤ Safety Indicators and Performances

The Company refines its safety production management strategy, clarifies targets, and optimizes evaluations. Through regular inspections, we ensure compliance with safety metrics. In 2024, no production safety accidents of major or above severity occurred, achieving the annual "6 for Zero" safety production responsibility targets.



Looking Ahead, the Company will continue to uphold "people first, life first," executing a three-year fundamental safety initiative, reinforcing its main safety responsibilities, and ensuring implementation of all-staff safety responsibilities. We will also strengthen our dual-prevention mechanism, controlling major safety risks, enhance safety standards, and bolster grassroots work in production safety. By improving supervisory effectiveness, precisely governing high-risk operations, systematically rooting out hidden hazards, and fortifying baseline safety capacities, Shandong Steel ensures safe production remains aligned with contemporary standards.

## Caring for Society, Fulfilling Responsibilities

Shandong Steel actively engages in public welfare initiatives such as rural revitalization, volunteer services, charitable donations, and targeted assistance for those in need. By taking on social responsibilities, the Company contributes to harmonious societal progress.

### ➤ Contributing to Rural Revitalization

By providing financial aid, dispatching First Secretaries, and implementing "Warm-Heart Benefiting Agriculture" livelihood projects, we facilitate rural revitalization. At the same time, the Company leverages its resources and expertise to engage in public welfare programs and broad-based social activities, helping drive poverty alleviation.

In 2024, we fully utilized consumption-based poverty alleviation to shore up poverty reduction gains by purchasing 1,000 sets of agricultural and sideline products from Tibet and Xinjiang, totaling 98,000 CNY.

### ➤ Supporting Community Development

Working hand in hand with local communities, Shandong Steel combines its new-old kinetic energy transformation with community governance, collectively forging a fresh chapter in enterprise-local development. Through taxation, job creation, and infrastructure improvements, the Company raises living standards for residents. With a strong sense of duty, we participate in community governance, sharing development benefits and promoting sustainable community progress. Since 2023, the Company has actively engaged in ten major urban development projects, investing in the "Green Steel-Intelligent Energy Transformation" to supply clean, efficient energy. We have also enhanced the environs of older factory sites by creating the "Shandong Steel Enjoyable Community," further enriching our co-construction efforts and injecting renewed vitality into local neighborhoods.

#### ✎ Case: Rizhao Base 3A Industrial Tourism Zone Achieves Industry-City Integration and Community Co-Governance

The Rizhao Base developed a 3A industrial tourism zone uniting "Industry + Culture + Tourism," offering leisure, production, cultural experiences, and study tours in one integrated scenic area. This approach exemplifies the synergy between steel enterprises and urban development, while also creating jobs for neighboring villagers- 49 people currently work there, including 19 from nearby communities- thus forming a new model for growth that tightly connects the scenic spot with steel operations.



#### ✎ Case: Steel City Base Partners with Local Community to Enhance Governance

At the Bar Mill #2 Rolling Shop Party Branch in Jinan's Steel City Base, the Company formed a pairing with the Tietonggou Community Party Branch of Rixin Street for collaborative initiatives that refine service approaches and boost governance effectiveness. By consistently addressing community issues of greatest concern, we enhance residents' sense of happiness and satisfaction.





Participation in Public Service Activities

The Company actively fulfills its social responsibilities through volunteer services, charitable donations, and other forms of assistance.

**Public Welfare Donations:**Our "Love Union" volunteer service team set up a donation channel with the Handicraft College in Xinlong County, Ganzi Tibetan Autonomous Prefecture in Sichuan, mobilizing young employees to donate clothing. Through this donation platform, we shared love and aid with children in need, supporting their healthy growth.

**Volunteer Activities:**Our volunteer efforts cover various domains, including elder care, educational assistance, and exam support, at an annual budget of about 50,000 CNY. Notably, the Special Steel Plant's "Little Raindrop" Charity Association offers ongoing volunteer services for isolated seniors, special-needs children, and struggling families in the Steel District of Jinan and surrounding areas. The Association also hosts community convenience programs and environmental initiatives. In 2024 alone, volunteer services occurred over 50 times, benefiting 2,000+ people and raising 170,000+ CNY in relief funds.

In 2024

Volunteer service hours totaled **54,354**  
Per capita volunteer service hours totaled **16**

Case: Rizhao Base Organizes "Lei Feng Spirit Lasts Forever, Volunteer Service Never Ends" Community Event

In the North District of Jinyu Jiayuan, Donggang District of Rizhao City, the Rizhao Base hosted a community volunteer service event themed "Lei Feng Spirit Lasts Forever, Volunteer Service Never Ends." Activities ranged from home appliance repairs, TCM consultations, knife sharpening, blood pressure and glucose checks, phone lamination, ultrasonic cleaning, and haircuts to fire safety demonstrations and distribution of women workers' rights manuals. Over 80 volunteers participated in 13 different services, benefiting more than 2,000 community residents who gave unanimous praise.



Case: Steel City Base Launches Community Convenience Volunteer Service

In March 2024, we- through the Company's Youth League Committee- organized a "Carry Forward the Lei Feng Spirit, Strive to Be the Vanguard of Our Times" centralized volunteer initiative at eight service points across Jinan's Steel District (Jinding South, Xinxing Square, Lakeside Park, etc.). We provided over 30 services, including haircuts, blood pressure measurements, knife/scissor sharpening, and appliance repairs, attracting 180+ volunteers and earning wide appreciation from the public.

Later in June 2024, the Company's Youth League Committee set up exam-service stations at Laigang High School and Laiwu No.4 Middle School, installing awnings and seating for parents' comfort, and offering bottled water and exam materials to both students and parents, thus ensuring a smoother testing experience.



Appendix

ESG Performance Indicators Form

Economic Indicators

| Indicator   | Unit      | 2022        | 2023       | 2024       |
|---|-----------|-------------|------------|------------|
| Operating revenue                                 | RMB 1,000 | 102,289,420 | 90,475,062 | 82,094,093 |
| Profit/ (loss) before tax                         | RMB 1,000 | 1,506,232   | -98,216    | -2,507,187 |
| Total tax   | RMB 1,000 | 1,619,424   | 867,215    | 918,098    |
| Total cash dividends (including tax) <sup>3</sup> | RMB 1,000 | 641,931     | 320,966    | 120,385    |
| Cash dividend per 10 shares                       | RMB       | 0.6         | 0.3        | 0.11       |
| Social contribution value per share               | RMB/share | 0.75        | 0.45       | 0.25       |

Environmental Indicators

| Indicator   | Unit                | 2022         | 2023         | 2024         |
|---|---------------------|--------------|--------------|--------------|
| Environmental management  |                     |              |              |              |
| Environmental investment  | RMB million         | 2,808        | 420          | 1,172        |
| Environmental pollution incidents   | Item                | 0            | 0            | 0            |
| Environmental fines during the reporting                                      | RMB 1,000           | 0            | 0            | 0            |
| Environment training coverage   | %                   | 100          | 100          | 100          |
| Environmental protection performance evaluation(The highest grade: A)         |                     | A            | A            | A            |
| The proportion of operations certified by the environmental management system | %                   | 100          | 100          | 100          |
| The proportion of operations certified by the energy management system        | %                   | 100          | 100          | 100          |
| Energy  |                     |              |              |              |
| Energy consumption  | Tonne standard coal | 8,139,329.00 | 8,058,786.11 | 7,052,242.49 |
| Comprehensive energy consumption per tonne of steel                           | Kg/tonne            | 531.25       | 502.94       | 471.97       |
| Self-generated electricity  | million kWh         | 2,855        | 3,162        | 3,061        |

3 The total dividends for 2024 equal the actual cash amount used by Shandong Steel to repurchase shares during the year. According to Article 8 of the Shanghai Stock Exchange's Self-Regulatory Guidelines No.7 for Listed Companies-Share Repurchase, when a listed company repurchases shares via centralized bidding or tender offer with cash consideration, the amount spent on share repurchases during the year shall be regarded as cash dividends and included in the calculation of the annual cash dividend ratio.

| Indicator  | Unit                    | 2022       | 2023       | 2024       |
|--|-------------------------|------------|------------|------------|
| Water resources                                    |                         |            |            |            |
| Fresh water consumption                            | Tonne                   | 3,574.45   | 3,481.06   | 3174.79    |
| Water recycled rate                                | %                       | 98.32      | 98.30      | 97.04      |
| Fresh water intensity                              | m <sup>3</sup> /t-crude | 2.30       | 2.34       | 2.125      |
| Wastewater discharge                               |                         |            |            |            |
| Total wastewater discharge                         | 1,000 tonnes            | 5,607      | 6,464      | 6,741      |
| Chemical oxygen demand in wastewater discharge     | Tonne                   | 95.92      | 133.03     | 124.43     |
| Ammonia nitrogen(NH <sub>3</sub> -N) in wastewater | Tonne                   | 1.098      | 1.640      | 3.343      |
| Pollutant emissions                                |                         |            |            |            |
| Particulate matter (PM)                            | Tonne                   | 3,554.52   | 3,677.96   | 2,658.81   |
| Sulfur dioxides (SO <sub>2</sub> ) emissions       | Tonne                   | 1,583.97   | 1,520.72   | 1,404.19   |
| Nitrogen oxides (NO <sub>x</sub> ) emissions       | Tonne                   | 3,438.99   | 3,545.07   | 4,083.57   |
| Waste materials                                    |                         |            |            |            |
| Waste generation                                   | 1,000 tonnes            | 9,909      | 9,306      | 8,340      |
| General waste generation                           | 1,000 tonnes            | 9,514      | 8,935      | 7,953      |
| General waste recycled                             | 1,000 tonnes            | 9,496      | 8,921      | 7,945      |
| General waste disposal                             | 1,000 tonnes            | 18         | 14         | 9          |
| Hazardous waste generation                         | 1,000 tonnes            | 395        | 371        | 386        |
| Hazardous waste of harmless disposal               | 1,000 tonnes            | 395        | 371        | 386        |
| Waste Recycling Rate                               | %                       | 95.83      | 95.86      | 95.27      |
| Clean production                                   |                         |            |            |            |
| Utilization rate of solid waste                    | %                       | 100        | 100        | 100        |
| Comprehensive utilization rate of steel slag       | %                       | 100        | 100        | 100        |
| GHG emissions                                      |                         |            |            |            |
| Direct emissions (Scope 1)                         | tCO <sub>2</sub> e      | 23,712,624 | 24,512,877 | 24,821,339 |
| Indirect emissions (Scope 2)                       | tCO <sub>2</sub> e      | 4,150,032  | 2,670,937  | 2,331,860  |
| Direct/indirect GHG emissions (Scope 1 & 2)        | tCO <sub>2</sub> e      | 27,862,656 | 27,183,813 | 26,988,399 |

Social Indicators

| Social Indicators   | Unit      | 2022   | 2023   | 2024   |
|---|-----------|--------|--------|--------|
| Employees   |           |        |        |        |
| Total number of employees   | Person    | 16,967 | 16,535 | 16,031 |
| Number of male employees  | Person    | 14,747 | 14,573 | 14,181 |
| Number of female employees  | Person    | 2,220  | 1,962  | 1,850  |
| Number of employees aged 30 or younger  | Person    | 2,041  | 2,029  | 2,018  |
| Number of employees aged 30-50  | Person    | 11,454 | 11,222 | 9,556  |
| Number of employees aged 50 or older  | Person    | 3,472  | 3,284  | 4,457  |
| Number of ethnic minority employees   | Person    | 135    | 130    | 91     |
| Number of employees with disabilities   | Person    | 49     | 51     | 41     |
| Proportion of employees with disabilities   | %         | 0.29   | 0.31   | 0.26   |
| Number of veterans recruited  | Person    | 1      | 3      | 5      |
| Employee turnover rate  | %         | 0.26   | 0.35   | 0.57   |
| Turnover rate of male employees   | %         | 0.23   | 0.22   | 0.48   |
| Turnover rate of female employees   | %         | 0.12   | 0.04   | 0.09   |
| Amount invested in employee work safety liability insurance                                   | RMB 1,000 | 678    | 594    | 555    |
| Amount invested in employee work injury insurance   | RMB 1,000 | 27,441 | 20,003 | 22,212 |
| Employee work injury insurance coverage   | %         | 100    | 100    | 100    |
| Signing rate of labor contracts   | %         | 100    | 100    | 100    |
| Proportion of employees covered by collective agreements                                      | %         | 100    | 100    | 100    |
| Number of labor dispute cases   | Item      | 0      | 0      | 0      |
| Number of discrimination and harassment incidents   | Item      | 0      | 0      | 0      |
| Training ratio of employees for Anti discrimination and opposition to human rights violations | %         | 100    | 100    | 100    |
| Social insurance coverage   | %         | 100    | 100    | 100    |



| Social Indicators  | Unit         | 2022      | 2023      | 2024      |
|--|--------------|-----------|-----------|-----------|
| Total number of female employees on parental leave   | Person       | 176       | 169       | 158       |
| Return rate and retention rates of female employees on parental leave                                    | %            | 100       | 100       | 100       |
| Number of assisted employees in difficulty   | Person       | 193       | 193       | 352       |
| Number of paid annual leave days per capita  | Day          | 9         | 9         | 9.5       |
| Employee satisfaction  | %            | 100       | 100       | 100       |
| Annual investment in vocational training   | RMB 1,000    | 68,620    | 94,840    | 95,040    |
| Employee training coverage   | %            | 100       | 100       | 100       |
| Total training hours   | Hour         | 2,442,637 | 4,071,062 | 4,102,890 |
| Training hours per capita  | Hour         | 89        | 85        | 99        |
| Percentage of employees receiving regular performance and career development reviews                     | %            | 100       | 100       | 100       |
| Physical examination   |              |           |           |           |
| Physical examination coverage  | %            | 100       | 100       | 100       |
| Occupational disease incidence rate  | Person       | 0         | 0         | 0         |
| Number of newly added  | RMB million  | 118       | 128       | 120       |
| Total investment in work safety  | RMB million  | 2         | 4         | 3         |
| Number of work safety accidents  | NOS          | 1         | 0         | 0         |
| Number of work-related deaths(Number of work injuries for in-house employees and labor dispatch workers) | Person       | 0         | 0         | 0         |
| Work injury rate   | %            | 0         | 0         | 0         |
| Working days lost  | Day          | 0         | 0         | 0         |
| Number of safety training  | Person-times | 149,838   | 156,450   | 188,912   |
| Safety training hours  | Hour         | 1,279,676 | 1,356,201 | 2,265,481 |
| Safety risk prevention training  | %            | 100       | 100       | 100       |

| Social Indicators   | Unit      | 2022      | 2023      | 2024      |
|---|-----------|-----------|-----------|-----------|
| Product and customer service  |           |           |           |           |
| Amount incurred for major safety and quality liability incidents related to products and services during the reporting period | RMB 1,000 | 0         | 0         | 0         |
| Specific amount involved in customer privacy breach incidents   | RMB 1,000 | 0         | 0         | 0         |
| Total number of non-compliance incidents related to health, safety, and labeling of products and services provided            | NOS       | 0         | 0         | 0         |
| Complaint resolution rate   | %         | 100       | 100       | 100       |
| Customer satisfaction   | Points    | 87.30     | 89        | 90        |
| Total number of non-compliance incidents related to customer  | NOS       | 0         | 0         | 0         |
| Supplier management   |           |           |           |           |
| Total number of suppliers   | NOS       | 2,336     | 2,564     | 1,980     |
| Proportion of suppliers in mainland China   | %         | 100       | 100       | 100       |
| Total number of procurement orders on bidding procurement platform  | Item      | 7,364     | 7,553     | 14,142    |
| The proportion of green procurement of equipment and materials  | %         | 100       | 100       | 100       |
| The proportion of equipment and materials purchased from the local  | %         | 80.5      | 72.54     | 61        |
| Innovation  |           |           |           |           |
| R&D investments   | RMB 1,000 | 3,146,945 | 2,855,193 | 2,707,792 |
| Proportion of R&D investment to operating revenue   | %         | 3.08      | 3.16      | 3.30      |
| Number of R&D staff   | Person    | 1,931     | 1,776     | 1,747     |
| Proportion of R&D staff   | %         | 11.38     | 10.47     | 10.9      |
| Number of invention patents applied to core business operations   | PCS       | 890       | 686       | 979       |
| Number of invention patents applied   | PCS       | 564       | 548       | 544       |
| Number of innovation patents granted  | PCS       | 400       | 426       | 381       |
| Rural revitalization and social contribution  |           |           |           |           |
| Volunteer service hours   | Hour      | 80,776    | 64,638    | 54,354    |
| Per capita volunteer service hours  | Hour      | 23        | 21        | 16        |

Governance Indicators

| Indicator   | Unit   | 2022 | 2023 | 2024 |
|---|--------|------|------|------|
| Proportion of independent directors   | %      | 56   | 43   | 44   |
| Proportion of female directors  | %      | 11   | 0    | 11   |
| Number of board meetings  | Time   | 10   | 11   | 16   |
| Number of Strategic Planning and ESG Committee meetings   | Time   | 2    | 1    | 3    |
| Number of Risk Management and Audit Committee meetings  | Time   | 4    | 4    | 7    |
| Number of Budget, Compensation, and Assessment Committee meetings   | Time   | 2    | 2    | 2    |
| Number of Nominating Committee meetings   | Time   | 1    | 2    | 8    |
| Frequency of performance release  | Time   | 3    | 3    | 3    |
| Investment Bank Strategy Conference   | Count  | 2    | 1    | 2    |
| Conference call   | Count  | 2    | 0    | 4    |
| Hosting investor visits   | Person | 3    | 16   | 46   |
| Responding to investor questions  | NOS    | 422  | 356  | 375  |
| Investor relations questionnaire  | NOS    | 1    | 1    | 1    |
| Number of regular announcements   | NOS    | 4    | 4    | 4    |
| Number of temporary announcements   | NOS    | 49   | 49   | 80   |
| Proportion of independent directors serving on Boards of more than 3 listed companies                         | %      | 0    | 0    | 0    |
| Proportion of independent directors serving on Boards of more than 6 listed companies                         | %      | 0    | 0    | 0    |
| Percentage of directors who have received anti-commercial bribery and anti-corruption training                | %      | 100  | 100  | 100  |
| Percentage of management personnel who have received anti - commercial bribery and anti - corruption training | %      | 100  | 100  | 100  |
| Percentage of employees who have received anti-commercial bribery and anti-corruption training                | %      | 100  | 100  | 100  |
| The proportion of operations that have conducted internal audits/risk assessments on business ethics issues   | %      | 100  | 100  | 100  |

GRI Index

|                                   |   |
|-----------------------------------|---|
| Statement of use                  | Shandong Steel has reported in accordance with the GRI Standards for the period January 1 to December 31, 2024. |
| GRI 1 used                        | GRI 1: Foundation 2021  |
| Applicable GRI Sector Standard(s) | None  |

| Disclosure                      |  | Location  |
|---------------------------------|--|---|
| GRI 2: General Disclosures 2021 | 2-1 Organizational details   | Exploring Shandong Steel  |
|                                 | 2-2 Entities included in the organization's sustainability reporting             | About This Report   |
|                                 | 2-3 Reporting period, frequency and  | About This Report   |
|                                 | 2-4 Restatements of information  | About This Report   |
|                                 | 2-5 External assurance   | Not applicable  |
|                                 | 2-6 Activities, value chain and other business relationships                     | Exploring Shandong Steel<br>Win-Win Cooperation, Deepening Supply Management<br>Excellent Quality, Forging Customer Value |
|                                 | 2-7 Employees  | People-Oriented, Building a Better Home Together<br>ESG Performance Indicators Form                                       |
|                                 | 2-8 Workers who are not employees  | Safety First, Protecting Occupational Health<br>Win-Win Cooperation, Deepening Supply Management                          |
|                                 | 2-9 Governance structure and composition   | Standardizing Operations and Optimizing the Governance System<br>Integrated Planning and Deepening ESG Management         |
|                                 | 2-10 Nomination and selection of the highest governance body                     | For details, please refer to the Company's 2024 Annual Report   |
|                                 | 2-12 Role of the highest governance body in overseeing the management of impacts | For details, please refer to the Company's 2024 Annual Report   |
|                                 | 2-13 Delegation of responsibility for managing impacts                           | For details, please refer to the Company's 2024 Annual Report   |
|                                 | 2-14 Role of the highest governance body in sustainability reporting             | Integrated Planning and Deepening ESG Management  |
|                                 | 2-15 Conflicts of interest   | Advocating Virtue, Fulfilling Promises, and Adhering to Business Ethics   |
|                                 | 2-16 Communication of critical concerns  | Standardizing Operations and Optimizing the Governance System   |
|                                 | 2-17 Collective knowledge of the highest governance                              | Integrated Planning and Deepening ESG Management  |
|                                 | 2-19 Remuneration policies   | People-Oriented, Building a Better Home Together  |
|                                 | 2-20 Process to determine remuneration   | People-Oriented, Building a Better Home Together  |



| Disclosure                              |   | Location  |
|---|---|---|
| GRI 2: General Disclosures 2021         | 2-22 Statement on sustainable development strategy                | Message from the Chairman   |
|   | 2-23 Policy commitments   | People-Oriented, Building a Better Home Together  |
|   | 2-24 Embedding policy commitments                                 | Taking Precautions and Strengthening Risk Control Management<br>Win-Win Cooperation, Deepening Supply Management        |
|   | 2-25 Processes to remediate negative impacts                      | Advocating Virtue, Fulfilling Promises,<br>and Adhering to Business Ethics<br>Excellent Quality, Forging Customer Value |
|   | 2-26 Mechanisms for seeking advice and raising concerns           | Integrated Planning and Deepening ESG Management<br>People-Oriented, Building a Better Home Together                    |
|   | 2-27 Compliance with laws and regulations                         | For details, refer to the respective sections   |
|   | 2-28 Membership associations                                      | Exploring Shandong Steel<br>Innovation-Driven, Unleashing Development Momentum  |
|   | 2-29 Approach to stakeholder engagement                           | Integrated Planning and Deepening ESG Management  |
|   | 2-30 Collective bargaining agreements                             | People-Oriented, Building a Better Home Together  |
| Material topics                         |   |   |
| GRI 3: Material Topics 2021             | 3-1 Process to determine  | Integrated Planning and Deepening ESG Management  |
|   | 3-2 List of material topics                                       | Integrated Planning and Deepening ESG Management  |
|   | 3-3 Management of material  | Integrated Planning and Deepening ESG Management  |
| Economic performance                    |   |   |
| GRI 201: Economic Performance 2016      | 201-1 Direct economic value generated and distributed             | ESG Performance Indicators Form   |
|   | 201-2 Financial implications and other risks and                  | Guided by the Dual-Carbon Strategy, Optimizing Climate Management   |
|   | 201-3 Defined benefit plan obligations and other retirement plans | People-Oriented, Building a Better Home Together  |
| Indirect economic impacts               |   |   |
| GRI 203: Indirect Economic Impacts 2016 | 203-1 Infrastructure investments and services supported           | Caring for Society, Fulfilling Responsibilities   |
|   | 203-2 Significant indirect economic impacts                       | Caring for Society, Fulfilling Responsibilities   |
| Procurement practices                   |   |   |
| GRI 204: Procurement Practices 2016     | 204-1 Proportion of spending on local suppliers                   | Win-Win Cooperation, Deepening Supply Management  |

| Disclosure                              |   | Location  |
|---|---|---|
| Anti-corruption                         |   |   |
| GRI 205: Anti-corruption 2016           | 205-1 Operations assessed for risks related to corruption                             | Advocating Virtue, Fulfilling Promises,<br>and Adhering to Business Ethics                                    |
|   | 205-2 Communication and training about anti-corruption policies and procedures        | Advocating Virtue, Fulfilling Promises,<br>and Adhering to Business Ethics                                    |
|   | 205-3 Confirmed incidents of corruption and actions taken                             | Advocating Virtue, Fulfilling Promises,<br>and Adhering to Business Ethics<br>ESG Performance Indicators Form |
| Anti-competitive behavior               |   |   |
| GRI 206: Anti-competitive Behavior 2016 | 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices | The company has not been involved in any relevant legal proceedings.  |
| GRI 207: Tax 2019                       | 207-1 Approach to tax   | Operating with Integrity and Optimizing Tax Management  |
|   | 207-2 Tax governance, control, and risk management                                    | Operating with Integrity and Optimizing Tax Management  |
|   | 207-3 Stakeholder engagement and management of concerns related to tax                | Operating with Integrity and Optimizing Tax Management  |
| Materials                               |   |   |
| GRI 301: Materials 2016                 | 301-1 Materials used by weight or volume  | Maximizing Energy Efficiency and Enhancing Resource Utilization   |
|   | 301-2 Recycled input materials used   | Maximizing Energy Efficiency and Enhancing Resource Utilization   |
|   | 301-3 Reclaimed products and their packaging materials                                | Maximizing Energy Efficiency and Enhancing Resource Utilization   |
| Energy                                  |   |   |
| GRI 302: Energy 2016                    | 302-1 Energy consumption within the organization                                      | ESG Performance Indicators Form   |
|   | 302-3 Energy intensity  | ESG Performance Indicators Form   |
|   | 302-4 Reduction of energy consumption   | Maximizing Energy Efficiency and Enhancing Resource Utilization   |
|   | 302-5 Reductions in energy requirements of products and services                      | Maximizing Energy Efficiency and Enhancing Resource Utilization   |
| GRI 303: Water and Effluents 2018       | 303-1 Interactions with water as a shared resource                                    | Saving Water and Protecting Our Source of Life  |
|   | 303-2 Management of water discharge-related impacts                                   | Saving Water and Protecting Our Source of Life  |
|   | 303-3 Water withdrawal  | ESG Performance Indicators Form   |
|   | 303-4 Water discharge   | ESG Performance Indicators Form   |
|   | 303-5 Water consumption   | ESG Performance Indicators Form   |

| Disclosure                                      |   | Location   |
|---|---|--|
| Biodiversity                                    |   |  |
| GRI 304: Biodiversity 2016                      | 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas | Harmonious Coexistence, Safeguarding Biodiversity  |
|   | 304-2 Significant impacts of activities, products and services on biodiversity  | Harmonious Coexistence, Safeguarding Biodiversity  |
|   | 304-3 Habitats protected or restored  | Harmonious Coexistence, Safeguarding Biodiversity  |
| Emissions                                       |   |  |
| GRI 305: Emissions 2016                         | 305-1 Direct (Scope 1) GHG emissions  | ESG Performance Indicators Form  |
|   | 305-2 Energy indirect (Scope 2) GHG emissions   | ESG Performance Indicators Form  |
|   | 305-4 GHG emissions intensity   | Guided by the Dual-Carbon Strategy, Optimizing Climate Management                                      |
|   | 305-5 Reduction of GHG emissions  | Guided by the Dual-Carbon Strategy, Optimizing Climate Management                                      |
|   | 305-6 Emissions of ozone-depleting substances (ODS)   | The Company's production and operations do not generate ODS; thus, it is not disclosed                 |
|   | 305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions   | Strengthening the Foundation and Deepening Environmental Governance<br>ESG Performance Indicators Form |
| Waste   |   |  |
| GRI 306: Waste 2020                             | 306-1 Waste generation and significant waste-related impacts  | Recycling and Enhancing Solid Waste Disposal   |
|   | 306-2 Management of significant waste-related impacts   | Recycling and Enhancing Solid Waste Disposal   |
|   | 306-3 Waste generated   | ESG Performance Indicators Form  |
|   | 306-4 Waste diverted from disposal  | ESG Performance Indicators Form  |
|   | 306-5 Waste directed to disposal  | ESG Performance Indicators Form  |
|   |   |  |
| Supplier environmental assessment               |   |  |
| GRI 308: Supplier Environmental Assessment 2016 | 308-1 New suppliers that were screened using environmental criteria   | Integrated Planning and Deepening ESG Management   |
|   | 308-2 Negative environmental impacts in the supply chain and actions taken  | Integrated Planning and Deepening ESG Management<br>ESG Performance Indicators Form                    |

| Disclosure                                   |   | Location  |
|--|---|---|
| Employment                                   |   |   |
| GRI 401: Employment 2016                     | 401-1 New employee hires and employee turnover  | ESG Performance Indicators Form   |
|  | 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees            | People-Oriented, Building a Better Home Together                                |
|  | 401-3 Parental leave  | ESG Performance Indicators Form   |
| Labor/management relations                   |   |   |
| GRI 402: Labor/Management Relations 2016     | 402-1 Minimum notice periods regarding operational changes  | The Company currently has no material operational changes to report             |
| Occupational health and safety               |   |   |
| GRI 403: Occupational Health and Safety 2018 | 403-1 Occupational health and safety management system  | Safety First, Protecting Occupational Health                                    |
|  | 403-2 Hazard identification, risk assessment, and incident investigation  | Safety First, Protecting Occupational Health                                    |
|  | 403-3 Occupational health services  | Safety First, Protecting Occupational Health                                    |
|  | 403-4 Worker participation, consultation, and communication on occupational health and safety                       | Safety First, Protecting Occupational Health<br>ESG Performance Indicators Form |
|  | 403-5 Worker training on occupational health and safety   | Safety First, Protecting Occupational Health                                    |
|  | 403-6 Promotion of worker health  | Safety First, Protecting Occupational Health                                    |
|  | 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | Safety First, Protecting Occupational Health                                    |
|  | 403-8 Workers covered by an occupational health and safety management system  | Safety First, Protecting Occupational Health                                    |
|  | 403-9 Work-related injuries   | ESG Performance Indicators Form   |
|  | 403-10 Work-related ill health  | ESG Performance Indicators Form   |
| Training and education                       |   |   |
| GRI 404: Training and Education 2016         | 404-1 Average hours of training per year per employee   | ESG Performance Indicators Form   |
|  | 404-2 Programs for upgrading employee skills and transition assistance programs                                     | People-Oriented, Building a Better Home Together                                |
|  | 404-3 Percentage of employees receiving regular performance and career development reviews                          | ESG Performance Indicators Form   |



| Disclosure   |  | Location   |
|--|--|--|
| Diversity and equal opportunity                                |  |  |
| GRI 405: Diversity and Equal Opportunity 2016                  | 405-1 Diversity of governance bodies and employees   | Standardizing Operations and Optimizing the Governance System<br>People-Oriented, Building a Better Home Together<br>ESG Performance Indicators Form |
| Non-discrimination   |  |  |
| GRI 406: Non-discrimination 2016                               | 406-1 Incidents of discrimination and corrective actions taken   | People-Oriented, Building a Better Home Together   |
| Freedom of association and collective bargaining               |  |  |
| GRI 407: Freedom of Association and Collective Bargaining 2016 | 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk | People-Oriented, Building a Better Home Together<br>Win-Win Cooperation, Deepening Supply Management   |
| Child labor  |  |  |
| GRI 408: Child Labor 2016                                      | 408-1 Operations and suppliers at significant risk for incidents of child labor                                      | People-Oriented, Building a Better Home Together<br>Win-Win Cooperation, Deepening Supply Management   |
| Forced or compulsory labor                                     |  |  |
| GRI 409: Forced or Compulsory Labor 2016                       | 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor                       | People-Oriented, Building a Better Home Together<br>Win-Win Cooperation, Deepening Supply Management   |
| Security practices   |  |  |
| GRI 410: Security Practices 2016                               | 410-1 Security personnel trained in human rights policies or procedures  | Safety First, Protecting Occupational Health   |
| Local communities  |  |  |
| GRI 413: Local Communities 2016                                | 413-1 Operations with local community engagement, impact assessments, and development programs                       | Caring for Society, Fulfilling Responsibilities  |
|  | 413-2 Operations with significant actual and potential negative impacts on local communities                         | The Company has not identified any operations with actual or potential material adverse impacts on local communities                                 |
| Supplier social assessment                                     |  |  |
| GRI 414: Supplier Social Assessment 2016                       | 414-1 New suppliers that were screened using social criteria   | Win-Win Cooperation, Deepening Supply Management   |
|  | 414-2 Negative social impacts in the supply chain and actions taken  | Win-Win Cooperation, Deepening Supply Management<br>ESG Performance Indicators Form  |

| Disclosure                               |   | Location  |
|--|---|---|
| Customer health and safety               |   |   |
| GRI 416: Customer Health and Safety 2016 | 416-1 Assessment of the health and safety impacts of product and service categories                 | Excellent Quality, Forging Customer Value   |
|  | 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services | ESG Performance Indicators Form   |
| Marketing and labeling                   |   |   |
| GRI 417: Marketing and Labeling 2016     | 417-1 Requirements for product and service information and labeling                                 | Excellent Quality, Forging Customer   |
|  | 417-2 Incidents of non-compliance concerning product and service information and labeling           | ESG Performance Indicators Form   |
|  | 417-3 Incidents of non-compliance concerning marketing communications                               | ESG Performance Indicators Form   |
| Customer privacy                         |   |   |
| GRI 418: Customer Privacy 2016           | 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data  | ESG Performance Indicators Form   |
| Socioeconomic Compliance                 |   |   |
| GRI 419: Socioeconomic Compliance 2016   | 419-1 Non-compliance with laws and regulations in the social and economic area                      | The Company did not identify any instances of non-compliance with laws or regulations related to social and economic areas during the reporting period. |

Topics in the applicable GRI Sector Standards determined as not material

| GRI Topic                                   | Reasons for Omission   |
|---|--|
| 304-4   305-3   411-1   415-1               | The core business of the company has little relevance or importance to this index information, therefore they will not be disclosed. |
| 2-11   201-4   207-4                        | For further details, please refer to the company's 2024 Annual Report.   |
| 2-18   2-21   202-1   202-2   302-2   405-2 | Due to information confidentiality requirements, they will not be disclosed to the public temporarily.                               |

◆ Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies — Sustainability Report (Trial)

| Dimension                        | Number | Topic   | Clause         | Location   |
|----------------------------------|--------|---|----------------|--|
| Environment                      | 1      | Climate change tackling                               | Articles 21-28 | Guided by the Dual-Carbon Strategy, Optimizing Climate Management                                  |
|                                  | 2      | Pollutant discharge                                   | Article 30     | Recycling and Enhancing Solid Waste Disposal   |
|                                  | 3      | Waste disposal  | Article 31     | Recycling and Enhancing Solid Waste Disposal   |
|                                  | 4      | Ecosystem and biodiversity protection                 | Article 32     | Harmonious Coexistence, Safeguarding Biodiversity  |
|                                  | 5      | Environmental compliance management                   | Article 33     | Strengthening the Foundation and Deepening Environmental Governance                                |
|                                  | 6      | Energy usage  | Article 35     | Maximizing Energy Efficiency and Enhancing Resource Utilization                                    |
|                                  | 7      | Usage of water resources                              | Article 36     | Saving Water and Protecting Our Source of Life   |
|                                  | 8      | Circular economy                                      | Article 37     | Maximizing Energy Efficiency and Enhancing Resource Utilization                                    |
| Society                          | 9      | Rural revitalization                                  | Article 39     | Caring for Society, Fulfilling Responsibilities  |
|                                  | 10     | Contributions to the society                          | Article 40     | Caring for Society, Fulfilling Responsibilities  |
|                                  | 11     | Innovation-driven                                     | Article 42     | Innovation-Driven, Unleashing Development Momentum   |
|                                  | 12     | Ethics of science and technology                      | Article 43     | This matter is not relevant to our business  |
|                                  | 13     | Supply chain security                                 | Article 45     | Win-Win Cooperation, Deepening Supply Management   |
|                                  | 14     | Equal treatment to small and medium-sized enterprises | Article 46     | Win-Win Cooperation, Deepening Supply Management   |
|                                  | 15     | Safety and quality of products and services           | Article 47     | Excellent Quality, Forging Customer Value  |
|                                  | 16     | Data security and customer privacy protection         | Article 48     | Information Security: Building a Solid Data Barrie   |
|                                  | 17     | Employees   | Article 50     | People-Oriented, Building a Better Home Together;Safety First, Protecting Occupational Health      |
| ustainability-related governance | 18     | Due diligence   | Article 52     | Integrated Planning and Deepening ESG Management; Win-Win Cooperation, Deepening Supply Management |
|                                  | 19     | Communications with stakeholders                      | Article 53     | Integrated Planning and Deepening ESG Management   |
|                                  | 20     | Anti-commercial bribery and anti-corruption           | Article 55     | Advocating Virtue, Fulfilling Promises, and Adhering to Business Ethics                            |
|                                  | 21     | Anti- unfair competition                              | Article 56     | Advocating Virtue, Fulfilling Promises, and Adhering to Business Ethics                            |

◆ Feedback Form

Greetings!

Thank you for reading this report. In order to improve the Company's ESG work and enhance our ESG ability and level, we especially want to listen to your opinions and suggestions, and we kindly evaluate our report amidst your busy schedule, so as to help us continuous improve the report. Please help to complete the relevant questions in the feedback form and provide us with feedback in the following ways. Your valuable comments are very welcome and sincerely appreciated!

Shandong Iron and Steel Co., Ltd. ESG Work Office  
Address： No.99, Fuqian Street, Gangcheng District, Jinan, China.  
Tel: 0531-77920789      Email: sdgt600022@126.com  
Postal code: 271104      Fax: 0531-77920798

1. Which of the following stakeholders do you belong to?

☐ Shareholders and Investors ☐ Company Management ☐ Employees ☐ Customers ☐ Suppliers ☐ Government Departments  
☐ Regulators ☐ Social Organizations ☐ News Media ☐ Public Others (please specify)

2. Your overall evaluation of this report:

☐ Very good ☐ Better ☐ Fair ☐ Worse ☐ Very poor

3. Your evaluation of Shandong steel's practice in environmental protection:

☐ Very good ☐ Better ☐ Fair ☐ Worse ☐ Very poor

4. Your evaluation of Shandong Steel's practice of social responsibility:

☐ Very good ☐ Better ☐ Fair ☐ Worse ☐ Very poor

5. Your evaluation of Shandong Steel's practice in corporate governance:

☐ Very good ☐ Better ☐ Fair ☐ Worse ☐ Very poor

6. Please evaluate the clarity, accuracy and completeness of the information, indicators and data disclosed in this report:

☐ Very good ☐ Better ☐ Fair ☐ Worse ☐ Very poor

7. Please evaluate the readability of this report:

☐ Very good ☐ Better ☐ Fair ☐ Worse ☐ Very poor

Open Questions:

1. What suggestions do you have for Shandong Steel's work related to sustainable development and ESG work?
2. What deficiencies do you think exist in this report?
3. What else sustainable development and ESG information do you think needs to be disclosed in this report?





## 2024 Sustainability Report

This report is printed on eco-friendly paper.