






Angang Steel Company Limited
CSR Report & ESG Report
2024

Contents

02	Inoduction
02	About This Report
03	Board's Statement on ESG Governance
04	Message from the Chairman
06	About Us
06	Company profile
10	Development strategy
11	Sustainable development honors
12	Figures of 2024
14	Sustainable Development Goals and Indicators
15	Substantive Topics
18	ESG Governance
19	ESG Strategies
20	ESG Risk Management
72	Outlook for 2025
73	ESG Index
76	Feedback Form

01	Pursuing Efficient Governance to Build a Solid Foundation for Enterprise	
27	Compliance and business ethics	
29	Protection of shareholders' equity	
02	Illuminating the Luster of Green Charm to Collaboratively Depict a Landscape of Ecological Prosperity	
32	Response to climate change	
36	Environmental compliance management	
38	Emissions management	
42	Resource and energy management	
46	Ecosystem protection	
03	Striving for Harmonious Development Based on Mutual Inclusiveness and Collaboration	
50	Employee growth	
56	Product quality and services	
60	Innovation-driven development	
66	Supply chain safety	
68	Rural revitalization	
70	Protection for the beautiful city	
71	Public welfare and charity projects	



◆ Inoduction

About This Report

Time horizon

This Report describes events of the Company during the period from January 1, 2024 to December 31, 2024. In order to ensure the consistency and comparability of contents, part events may happen beyond the above-mentioned time horizon.

Release cycle

This Report is an annual report which is usually released in March of the next year.

About company name

For the convenience of expression and reading, "Angang Steel Company Limited" is also expressed as "Angang Steel", "the Company/it", or "we/us/our" in this Report. "Anshan, Yingkou and Chaoyang production bases" are expressed as the "three bases" in this Report.

Scope of the Report

Angang Steel Company Limited and its subsidiaries, branches and direct affiliates

Data source

All data used in this Report are from the official documents and statistical reports of Angang Steel Company Limited.

Basis of compilation

- *2030 Agenda for Sustainable Development* by the U.N. (SDGs)
- International Standard Organization *ISO 26000: Guidance on Social Responsibility*
- *GRI Standards* by Global Sustainability Standards Board
- GB/T 36001-2015 *Guidance on Social Responsibility Reporting*
- *Guidance for State-owned Enterprises to Better Fulfill Social Responsibility* (GZFYJ [2016] No. 105) by State-owned Assets Supervision and Administration Commission of the State Council
- *Environmental, Social and Governance Reporting Guide* by The Stock Exchange of Hong Kong Limited
- *Self-Regulatory Guidelines for Listed Companies No. 17 – Sustainability Report (for Trial Implementation)* by Shenzhen Stock Exchange
- *Self-Regulatory Guide for Listed Companies No. 3 – Preparation of Sustainability Reports* by Shenzhen Stock Exchange

Language and version

This Report is made in both Chinese and English. If there are differences in the contents between the Chinese and English versions, the former shall prevail.

Acquisition of the Report

You can download the electronic version of this Report from the official website of Angang Steel Company Limited (<http://www.ansteel.com.cn/>).

Board's Statement on ESG Governance

Angang Steel attaches paramount importance to corporate sustainable development, integrating environmental, social, and governance (ESG) principles into its strategic planning, major decision-making, and operational processes to actively promote coordinated development among the enterprise, environment, and society. The company continuously refines its ESG governance system by establishing a robust top-down three-tier ESG governance structure. It reinforces the Board of Directors' role in ESG-related decision-making, oversight, and leadership while enhancing ESG risk management to drive sustained improvements in corporate governance.

As the supreme decision-making body for ESG affairs, the Board incorporates ESG-related matters – including corporate governance, climate change, and rural revitalization – into its supervisory, deliberative, and decision-making processes. It regularly reviews ESG-related operational management, safety, and environmental practices, oversees the identification and management of ESG opportunities and risks, participates in material ESG issue management and validation, and deliberates on the establishment and fulfillment of key ESG objectives.

This report systematically discloses the concepts, initiatives, practices, and achievements of Angang Steel in environmental, social, and governance domains during 2024. The Board of Directors and all directors hereby guarantee the absence of any false records, misleading statements, or material omissions in this report, and assume individual and collective legal responsibility for the authenticity, accuracy, and completeness of its contents.

Angang Steel Company Limited
March 2025



◆ Message from the Chairman

The year 2024, a crucial year for the 14th Five-Year Plan, marks the 75th anniversary of both the founding of the People's Republic of China and the establishment of Ansteel Group Corporation Limited ("Ansteel" for short). Although we faced a tempestuous external environment this year, it only strengthened our tenacious perseverance in overcoming difficulties. As a core enterprise of Ansteel, Angang Steel Company Limited ("the Company" or "Angang Steel" for short) is acutely conscious of the red gene coursing through its veins and shoulders important missions of propelling economic growth, fostering social harmony and safeguarding the ecological environment. Always keeping in mind its original mission of bearing in mind the responsibilities as the eldest son of the People's Republic of China and dedicating itself to serving the country, Angang Steel has embedded the sustainable development concept within its corporate culture, and considered sustainable factors in business decision-making. Besides, it has deemed environmental, social and governance ("ESG" for short) as a pivotal element in its risk management and sustainable development objectives, and integrated ESG into an indispensable part of its business strategy.

● Dedicate our industry to the nation, forging an iron-and-steel backbone for the construction of a powerful country.

We, committed to "fabricating better materials", are aimed at building high-end, precision, and cutting-edge specialty steel product clusters for crucial breakthroughs. With products from the "national pillar instrument" that ventures 4,000 m into the deep blue sea - China's first ultra-deep ocean drilling vessel, to the "life armor" that constructs the steel containment of nuclear power plants, Angang Steel shows its determination to undertake its mission to forge the steel backbone of national key equipment. By doing so, it aims to erect a bulwark of domestic innovation for energy infrastructure, thus contribute our strength to forging the pillars of a great power.

● Forging a sustainable development model based on the pursuit of green goals.

We have pursued the green and low-carbon development strategy and initiated energy conservation and emission reduction projects. We have also popularized the circular economy paradigm, incessantly propelled the production mode towards green transformation, and strived to establish a paragon for clean manufacturing enterprises. We have integrated climate change mitigation into the overall development blueprint, and taken the initiative to deliberate and formulate action strategies for climate change, contributing to the advancement of climate governance. Concurrently, we have consistently refined the management system for ecological environment protection, and keenly discerned and effectively addressed potential ecological risks. We have advanced the factory area greening, mitigated the impact of production and operation activities on the ecological environment on all fronts, and made its contributions to the preservation of biodiversity.

● Shared Progress, Collaborative Charting of the Responsibility Blueprint.

We have crafted an expansive, equitable, and sound development platform for employees, instituting a robust talent selection and nurturing system with multiple channels. By exploring and augmenting talent value from diverse perspectives, we have enabled employees to actualize their potentials. For the supply chain, we have emphasized sustainable stewardship, forging an open, eco-friendly, and efficient procurement network. Centering on five pivotal aspects such as workplace dedication, educational development donations and community services, we have mobilized young volunteers to carry out extensive volunteer activities, constantly enhancing Ansteel's public welfare brand. With these actions, we have vividly manifested our commitment to creating a more beautiful life.

Amidst the intricate turbulence of global industrial chain restructuring, we, positioned at a vanguard of epoch-making changes, are firmly convinced that only by taking responsibility as the anchor and innovation as the sail can we pierce the mists and chart a new course. Looking ahead, Angang Steel will fully implement General Secretary Xi Jinping's key remarks at the Symposium on Promoting the Comprehensive Revitalization of Northeast China in the New Era, and deeply embed itself in the overall national strategic layout. By upgrading the ESG system and expanding the responsibility value chain in depth, the Company will persist in cultivating internal drivers for sustainable development. On the journey to pursue new heights of development quality, we will shoulder our responsibilities with unyielding tenacity. Side by side with all stakeholders, we will wield the pen of the era to paint a future where economic, environmental, and social values grow in harmony.

Chairman of Angang Steel Company Limited

WANGJUN

王军



◆ About Us

Company profile

Angang Steel Company Limited (hereinafter referred to as "the Company" or "Angang Steel") is a large-scale steel production and sales enterprise in China. It was established by Ansteel Group Corporation Limited, the only founder, on May 8, 1997 and was listed on the Stock Exchange of Hong Kong and Shenzhen Stock Exchange respectively. At present, the Company, headquartered in Anshan City, Liaoning Province, registers capital of RMB 9.369 billion.

Main businesses

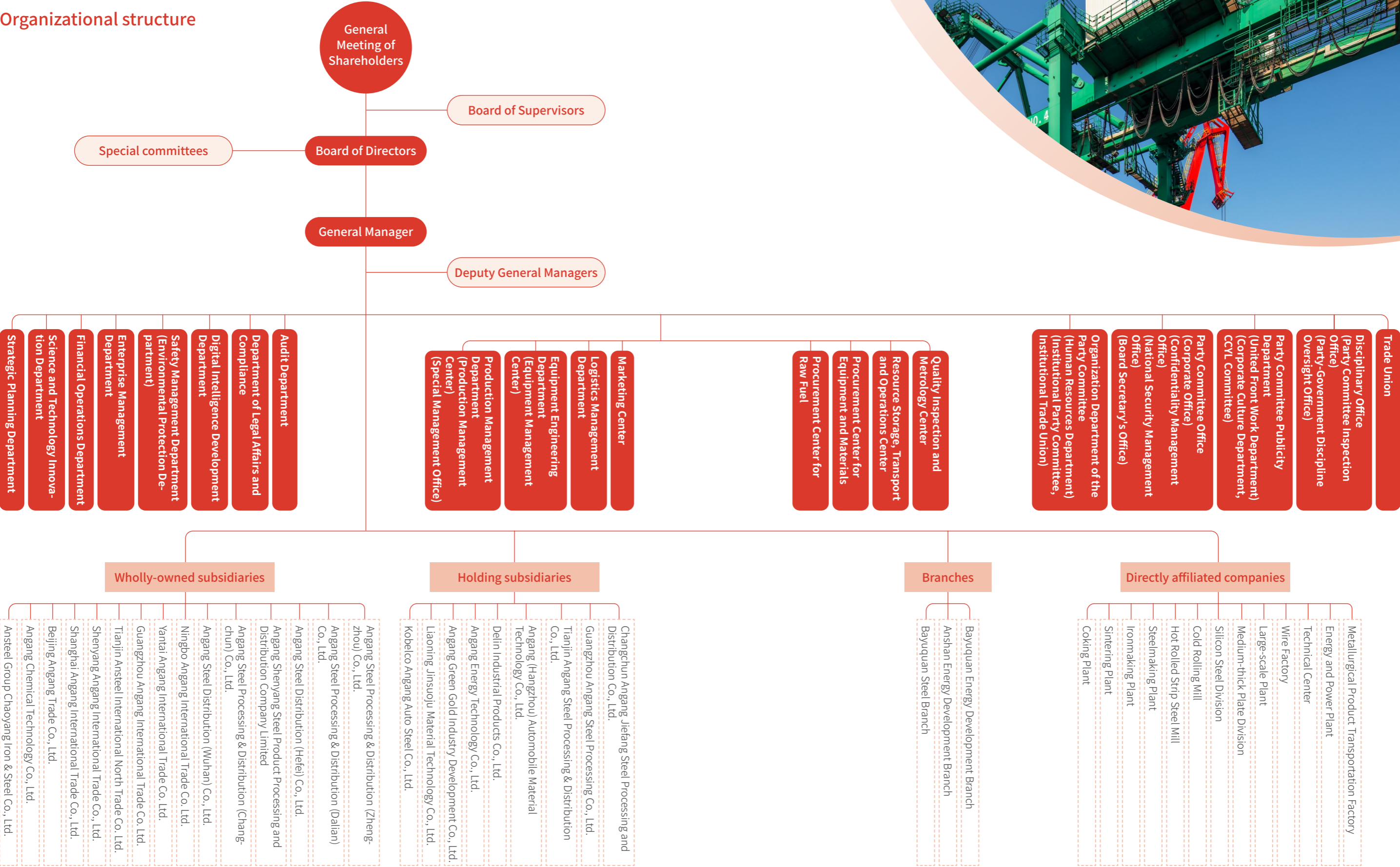
It has three production bases in Anshan, Headquarters, Chaoyang and Bayuquan respectively, as well as sales service and processing, distribution institutions in Dalian, Shenyang, Changchun, Tianjin, Shanghai, Wuhan, Hefei and Zhengzhou. It also has international businesses relying on the overseas sales institutions of Ansteel Group.

Diversified products

Angang Steel has diversified products including plates, pipes, sections, rods, wires, etc. It has relatively complete product categories and specifications covering hot-rolled coils, medium plates, cold-rolled sheets, galvanized sheets, color-coated sheets, cold-rolled silicon steels, heavy rails, profiles, seamless steel tubes and wire rods. Its products are widely used in the sectors including machinery, metallurgy, petroleum, chemical engineering, coal, power, railway, watercraft, vehicle, building, home appliance, aviation, etc. In addition, It ranks 1st in China regarding sales volume of steel for shipbuilding and railway. It owns famous brand products such as products with high technology content, for example electric steel and steel for vehicle, nuclear power, petroleum and petrochemical product, home appliance and container. Besides, it is an international leader in the research & development of new types of ship plates and railway rails and the production technology of steel rails. It is also leading in the industry regarding the technical and technological level of a series of products such as the high-strength thick-walled pipeline steel for high-pressure oil & gas transportation in deep sea. The Company also has China's first national key laboratory of metallic materials for marine equipment and their application. The Company has gained high popularity and good reputation, and won the title of "China Famous Brand Product" by virtue of its steel for railways, steel plates for containers and shipbuilding plates.

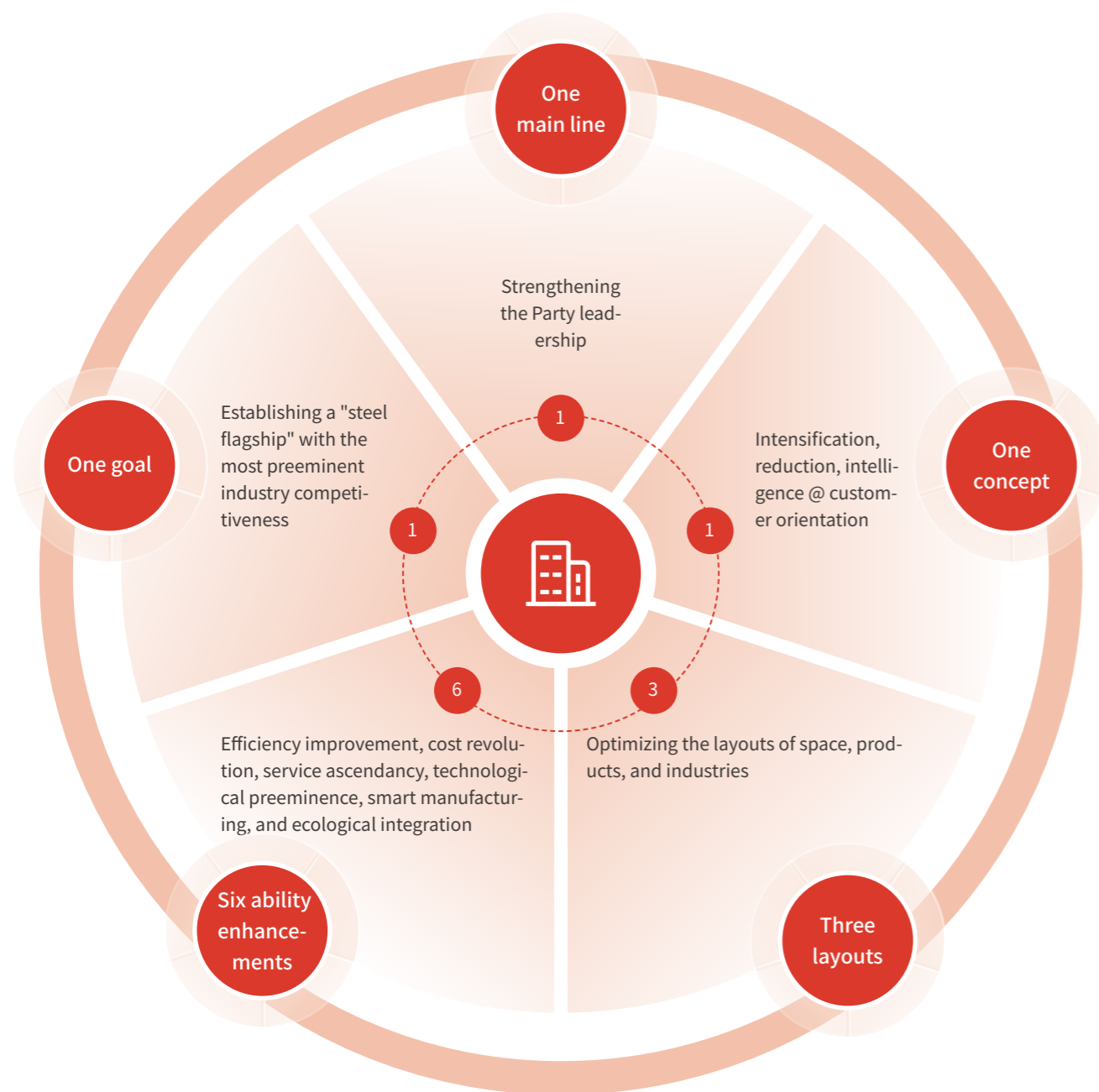


Organizational structure



Development strategy

Angang Steel has steadfastly adhered to the "11361" development strategy, and persistently fortified its Party building. It has centered on the concept of "intensification, reduction, intelligence @ customer orientation", optimized the three-pronged layouts of space, products, and industries, and expedited the enhancement of six capabilities, namely, "efficiency improvement, cost revolution, service ascendancy, technological preeminence, smart manufacturing, and ecological integration". Amid market vicissitudes, it has continuously augmented its core competitiveness, aiming to transform itself into a listed company embodying the values of an outstanding corporate citizen and "steel flagship" with the most preminent industry competitiveness.



Sustainable development honors



Angang Steel

On "the Top 100 Pioneers among China's ESG-Listed Companies" List 2024
Finance and Economics Programs Center of Central Radio and Television Station, joining hands with the State-owned Assets Supervision and Administration Commission of the State Council, the All-China Federation of Industry and Commerce, the State-owned Economy Research Think Tank under Chinese Academy of Social Sciences, and the China Enterprise Reform and Development Society



Angang Steel

Enrolled in the "ESG Pioneer 100 Index of Listed Companies Controlled by Central State-owned Enterprises (2024)"
Bureau of Social Responsibility under the State-owned Assets Supervision and Administration Commission of the State Council



Angang Steel

Class AAA in the ESG Rating of Chinese Steel Enterprises in 2024
China Metallurgical Industry Planning and Research Institute



Angang Steel

The good practice case: Cultivating Professional Safety-Oriented Employees and Establishing a Harmonious Safety-Focused Factory Enrolled in the Research Report on ESG of Listed Companies Controlled by Central State-owned Enterprise (2024) (Blue Book)
China Enterprise Forum



Angang Steel

ESG Competitiveness Exemplar & Dual Carbon Pioneer in the 2024 GoldenBee CSR China Honor Roll
GoldenBee ThinkTank (as a sponsor), CSR Europe and CBCC (as co-sponsors),.



Angang Steel

The project of "Key Technologies and Industrialization of Low-carbon, Low-cost, Green, Nano-based and High-performance Concrete" won the Gold Award at the 27th National Invention Exhibition and was selected into the Typical Cases 2024 of Green Technological Innovation by the Patent Protection Association of China
China Association of Inventions, Patent Protection Association of China



Angang Steel

Enrolled in the List of "Digital Leadership" Enterprises by the Ministry of Industry and Information Technology
Ministry of Industry and Information Technology



Angang Steel

Enrolled in the List of Single Champion Enterprises in the Manufacturing Industry of Liaoning Province in 2024 by virtue of industrial pure iron
Department of Industry and Information Technology of Liaoning Province



Angang Steel

The "Innovation and Practice of the Big Data System for Iron and Steel Process" was selected as one of the first batch of typical cases in the construction of Digital China.
National Data Administration



Angang Steel

the title of "Benchmark Enterprise for Green Development"
China Iron and Steel Association



Bayuquan Steel Branch

Advanced Enterprise for implementing the Three-Year Action of Energy Efficiency Benchmarking in the Ultimate Energy Efficiency Project of the Iron and Steel Industry in 2024
China Iron and Steel Association



Chaoyang Iron & Steel Co., Ltd.

Approved as a smart factory in Liaoning Province by virtue of the "Smart Factory with Whole-process Integrated Control and Management Based on Industrial Internet"
Department of Industry and Information Technology of Liaoning Province



Chaoyang Iron & Steel Co., Ltd.

China Iron and Steel Industry Clean Production & Environmentally Friendly Enterprise.
China Iron and Steel Association

Figures of 2024

Governance

The Company earnestly studied and implemented the guiding principles contained in the series of important instructions and directives from General Secretary Xi Jinping on improving the modern enterprise system of state-owned enterprises. It fully implemented the "two consistencies", actively explored effective ways to integrate the Party leadership into corporate governance and established the legal status of the Party organization in the corporate governance structure. In its governance system, the General Meeting of Shareholders, the Board of Directors, the Board of Supervisors and the Management follow the rule of science-based division of work, assume their respective responsibilities and pursue effective checks and balances. Adhering to the tradition of continuity and keeping pace with the times, the Company summarized and refined the new practices of promoting the guiding principles of Ansteel Charter, adding new connotations into the charter. These practices formed a part of "new Ansteel" images which are made of "Ansteel as the eldest son of the People's Republic of China", "a Branded Ansteel", "an Innovative Ansteel", "a Digital Ansteel", "a Green Ansteel" and "a Sharing Ansteel".

- Number of training sessions related to corporate governance **5**
- Number of complaints from stakeholders: **0**
- Number of investor communication activities: **15**



Environmental

The Company actively studied and arranged action strategies to address climate change, participated in green power trading, and developed and utilized clean renewable energy such as wind energy and photovoltaics. The pilot plant for hydrogen-based directly reduced iron in ten-thousand-ton fluidized bed, which is developed by Bayuquan Steel Branch, completed the individual and combined test run of hydrogen production section, granulation section and reduction section, promoting the iron and steel industry to shift from "carbon metallurgy" to "hydrogen metallurgy". The Company used 2 hydrogen energy heavy-duty trucks in the port transportation route between Anshan headquarters and Bayuquan, becoming the first company of Ansteel to adopt hydrogen energy vehicles for transportation. It also focused on advanced technology application and process optimization, and achieved the efficient energy utilization. Specifically, it carried out the extreme energy efficiency project, reducing consumption of solid fuel, gas, steam and electricity, and promoting energy efficiency improvement on all fronts.

- The total funds invested in environment **5.597** billion yuan.
- The Company's carbon dioxide emission per 10,000 yuan output value (comparable price) reached **5.46** tons, down **1.4%** from 2023.
- Purchased green electricity: **1.588** billion kWh, of which **97** million kWh are certified
- Actual value of comprehensive energy consumption per 10,000 yuan industrial output value reached **1.97** ton of standard coal/10,000 yuan
- Energy density: **0.567** ton/ton of steel
- Water consumption of steel/ton: **1.91** ton/ton of steel
- Water reuse rate: **98.59%**
- Scrap steel recycling rate: **100%**
- Compliance rate of hazardous waste disposal: **100%**
- Compliance rate of radioactive source usage: **100%**
- Implementation rate of "three simultaneousness" principle for environmental protection of construction projects: **100%**



Social

The Company consistently kept a close eye on the implications of its development for urban progress. During its operation, it took the initiative to manage urban wastes and mitigate pollution risks. Besides, it provided coal gas and residual hot water resources to guarantee the energy supply for people's livelihoods, contributing to the construction of the beautiful city and local economic and social development. In addition, it proactively created more job opportunities and fully ensured employee participation in labor governance through democratic management platforms such as the staff and workers' representative congress and trade union. It upheld gender equality and diversity in ethnicity and beliefs. It remained committed to equal pay for equal work. It also offered competitive salaries and benefits and worked to create a dignified and excellent development platform. Meanwhile, it established a comprehensive occupational health and safety management system covering all employees and interested parties to prevent occupational health and safety risks and create a safe workplace. It also paid equal attention to the well-being of employees from the interested parties and improved their working and resting conditions by installing air conditioners, providing direct stairs and taking other measures. Moreover, it worked to eliminate discriminatory clauses or delayed payments due to differences in enterprise size. It adhered to the principles of transparent, green and smart procurement to build an open, environmental-friendly, and efficient procurement supply chain. It also implemented an integrated control model for the interested parties and guided long-term partners in improving their safety management systems.

- Tax payment of **1.226** billion yuan
- Number of new employees: **272**
- Investment in safety and health: **172.64** million yuan
- Coverage of training to employees: **100%**
- Per capita training time of employees: **66.3** hours
- Funds for paired assistance: **16.5** million yuan
- Accumulated duration of volunteer service: **20,124** hours
- Investment in research and development: **3.972** billion yuan
- Proportion of investment in research and development in the main business revenue: **3.78%**



Sustainable Development Goals and Indicators

Governance

Goals/indicators	Progresses in 2024	Status of goal attainment
Number of complaints from stakeholders: 0	0	The goals are achieved
Accuracy rate of information disclosure: 100%	100%	The goals are achieved
Legal protection rate of major projects: 100%	100%	The goals are achieved

The environment

Goals/indicators	Progresses in 2024	Status of goal attainment
Sulfur dioxide emissions: ≤ 6,800 tons	Total sulfur dioxide emissions: 6,040.8 tons	The goals are achieved
Nitrogen oxide emissions: ≤ 20,100 tons	Nitrogen oxide emissions: 18,484.2 tons	The goals are achieved
Emissions of particulate matters: ≤ 5,750 tons	Emissions of particulate matters:5,018 tons	The goals are achieved
Emissions of COD: ≤ 55 tons	Emissions of COD: 49.42 tons	The goals are achieved
Compliance disposal rate of hazardous waste:100%	Compliance disposal rate of hazardous waste:100%	The goals are achieved
Safe usage rate of radioactive sources: 100%	Safe usage rate of radioactive sources: 100%	The goals are achieved
Implementation rate of "Three Simultane-ousness" principle in construction projects: 100%	Implementation rate of "Three Simultaneousness" principle for environmental protection in construc-tion projects: 100%	The goals are achieved

The society

Goals/indicators	Progresses in 2024	Status of goal attainment
100% coverage of safety training for employ-ees and stakeholders.	Coverage of safety training for employees and stake-holders: 100%	The goals are achieved
No major human rights violations	No major human rights violations identified	The goals are achieved
Injury rate per 1,000 employees: ≤ 0.25‰	Injury rate per 1,000 employees: 0.03‰	The goals are achieved
Significant reduction in procurement costs	13.3% year-on-year decrease in procurement costs of equipment and materials	The goals are achieved
	12.9% year-on-year decrease in procurement costs of raw fuel	
Increase in the proportion of R&D invest-ment in main business revenue	Proportion of R&D investment in main business revenue: 3.59%	The goals are achieved
Unabated intensity of assistance maintained	Funds for paired assistance: 16.5 million yuan	The goals are achieved
	Number of technical and managerial personnel dispatched for paired assistance: 5	
	Purchase of assistance products worth 19.42 million yuan and assistance in selling products worth 5.69 million yuan	

Substantive Topics

The Company established an ESG topic library based on the analysis of, among others, macro policies, industry policies, sustainable development standards and guidelines, and in combination with the requirements of the capital market and the characteristic issues of the iron and steel industry. According to the two dimensions of "importance to the Company's growth" and "impact level on stakeholders", the Company identified and screened the significant issues closely related to the industry, defined the reporting scope, and responded to the expectations of stakeholders.

Analysis process

Determining a topic list

The Company determined the ESG topic list with characteristics of the iron and steel industry, its business characteristics, and the capital market requirements by combining the industry development trends, its business characteristics, and relevant guidelines and standards of the capital market.

Launching an investigation and research on stakeholders

The Company understood the stakeholders' concerns about ESG topics and the impact of ESG topics on stakeholders through many channels such as investor communication activities, supplier communication activities, Staff and Workers' Representa-tive Congress, and government communication activities.

Conducting importance analysis

The Company carried out an assessment from two dimensions of impact importance and financial importance. In the assess-ment, it analyzed the impact of topics on the economy, society, and environment, as well as the expected impact of topics on its financial aspects. It also identified topics of dual importance, and ranked the importance and priority of topics according to "importance" and "impact level".

Executing a review for determination and disclosure

ESG topics reviewed by the Board of Directors and deemed as important ones were identified as the Company's important top-ics and would be disclosed in detail in the corresponding sections of the report.

Analysis results

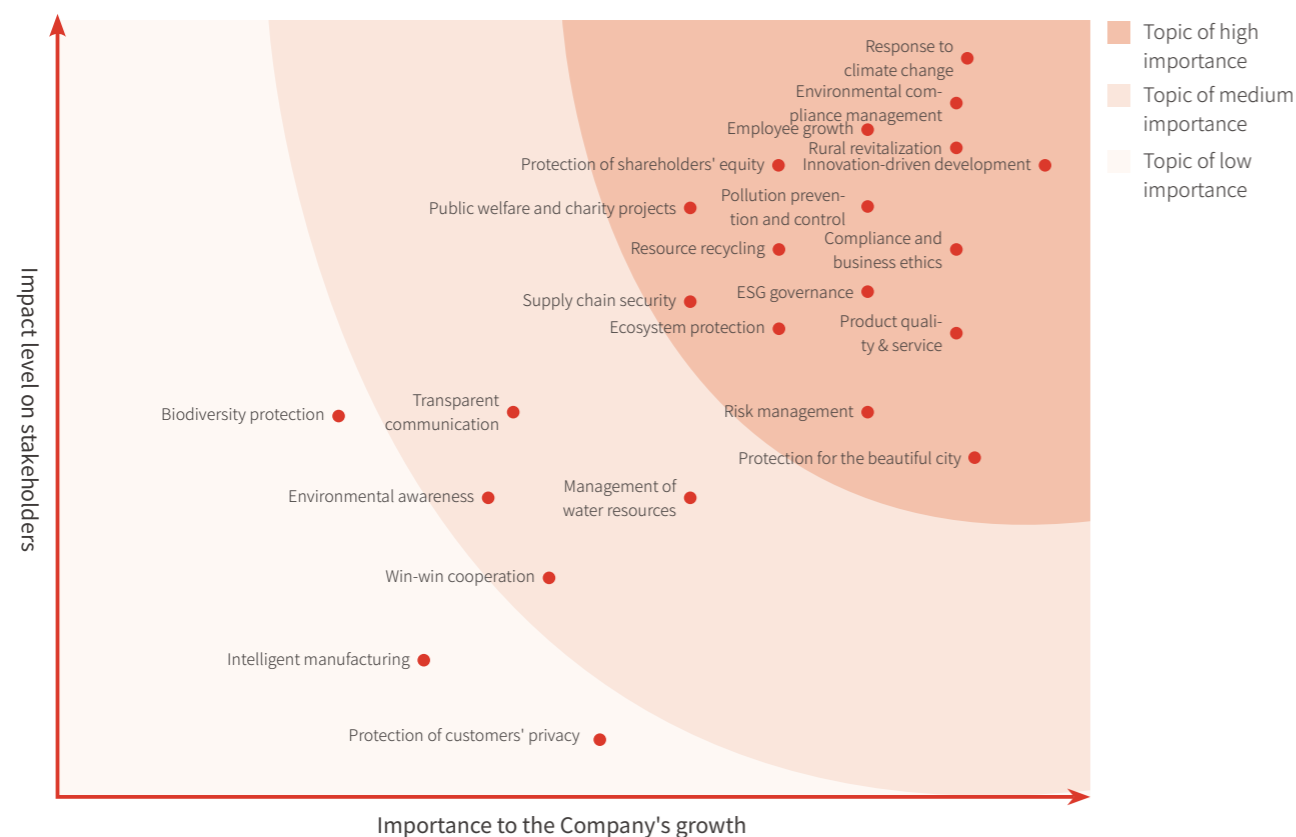
Angang Steel integrated the industry's development trends with the characteristics of its own business. Drawing on the recom-mendations of the Global Reporting Initiative (GRI) regarding the substantive analysis of topics, the Company endeavored to discern sustainable development concerns that featured both financial importance and impact importance to the Company. Moreover, in light of the continuity and readability of information disclosure, substantive topics presented in previous reports were meticulously factored in during the assessment on the impact level of the topics.

In the context of mounting stakeholder concerns and the promulgation of the *Sustainability Report Guidelines* by the Shen-zhen Stock Exchange, the Company placed more focus on the dual importance of ESG topics, and integrated and separated certain topics. Eventually, 15 highly substantive topics were identified, which were utilized to demarcate the reporting scope. These topics passed the scrutiny of the Board of Directors.

• **Within the ambit of "govern-ance",**"ESG governance" and "risk management" have been retained, and "compliance with laws and reg-ulations" and "ethical policies and practices" have been amalgamated into "compliance and business eth-ics".

• **Within the ambit of "the environ-ment",**highly substantive topics including "response to climate change", "emissions man-agement", and "resource and energy manage-ment" have been retained. Besides, those as-pects under the environmental management, such as systems, objectives, and awareness, have been amalgamated into "environmental compliance management".

• **Within the ambit of "the socie-ty",**the Company, in the context of sustainable supply chains receiving increased attention over the past two years, has placed enhanced em-phasis on supply chain security and designated "supply chain security" as a highly substantive topic for the first time.



Topic of high importance	Topic of medium importance	Topic of low importance
<ul style="list-style-type: none"> ESG governance Risk management Compliance and business ethics Protection of shareholders' equity Response to climate change 	<ul style="list-style-type: none"> Environmental compliance management Pollution prevention and control Ecosystem protection Employee growth Product quality & service 	<ul style="list-style-type: none"> Innovation-driven development Supply chain security Rural revitalization Public welfare and charity projects Protection for the beautiful city
	<ul style="list-style-type: none"> Transparent communication Management of water resources Win-win cooperation Environmental awareness 	<ul style="list-style-type: none"> Biodiversity protection Intelligent manufacturing Protection of customers' privacy

Topic disclosure

- For topics of dual importance in terms of impact and finance, or those of only financial importance, detailed disclosures are presented in Chapters of "Effective Governance", "Green Rhythm" and "Harmonious Coexistence". This is in strict compliance with the framework encompassing "Governance, Impact and Risk Management, Strategies and Indicators";
- For topics of impact importance only, "Strategies and Indicators" are disclosed in Chapters of "Effective Governance", "Green Rhythm" and "Harmonious Coexistence";
- For topics that are not of dual importance but fall within the 21 topics specified in the Shenzhen Stock Exchange's *Sustainability Report Guidelines*, explanations are provided in the index table.

Communication with stakeholders

Upholding the tenets of integrity, interaction, parity and transparency, the Company continued to refine the participation mechanisms and communication channels for its stakeholders, and listened to and apprehended the requisitions and anticipations of diverse stakeholders. Periodically, it documented, appraised and scrutinized the communication dynamics with stakeholders. These actions enabled the Company to demarcate its environmental, social and governance strategies and core topics more incisively. As a result, the Company ensured that stakeholders partook in the ESG journey of the Company, thereby jointly propelling its sustainable development.

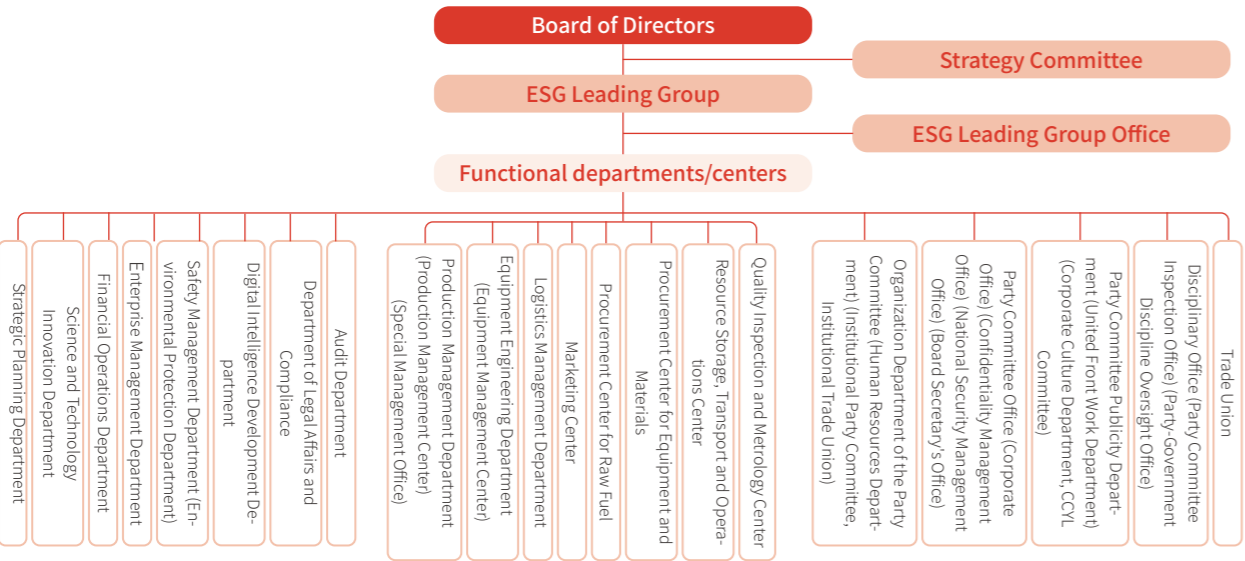
Stakeholders	Content of concerns	Ways of communication	Response and effectiveness
Government/regulatory body	<ul style="list-style-type: none"> Compliance with laws and regulations Tax payment according to law Promoting economic growth Local employment 	<ul style="list-style-type: none"> Government meetings Information submission Stock exchange platforms Information disclosure platforms 	<ul style="list-style-type: none"> Tax payment of 1.226 billion yuan.
Shareholders/investors	<ul style="list-style-type: none"> Steady operation Financial performance Information disclosure and transparency Maintenance and appreciation of state-owned assets 	<ul style="list-style-type: none"> General Meeting of Shareholders Performance presentations Investor communication platforms Periodical announcements Provisional announcements 	<ul style="list-style-type: none"> 2 shareholders' meetings held 15 investor relations activities launched 35 inquiries replied on the interactive platform of Shenzhen Stock Exchange
Customers	<ul style="list-style-type: none"> Product quality Smooth communication channels 	<ul style="list-style-type: none"> Customer satisfaction investigations Customer hotlines 	<ul style="list-style-type: none"> 92.24 points for customer satisfaction
Employees	<ul style="list-style-type: none"> Equal rights and interests Health and safety Career development Employee care 	<ul style="list-style-type: none"> Staff and workers' representative congress Meetings and trainings Company emails or mailboxes Internal communication tools 	<ul style="list-style-type: none"> Per capita training time of employees: 66.3 hours
Business partners/suppliers/peers	<ul style="list-style-type: none"> Business ethics Propelling the industry development Occupational health and safety (suppliers) Business status and production capacity 	<ul style="list-style-type: none"> Field investigations Video reviews 	<ul style="list-style-type: none"> 1,935 equipment and material suppliers, and 39.72% of localized procurement rate 374 raw fuel suppliers, and 52% of localized procurement rate
Surrounding communities/environment	<ul style="list-style-type: none"> Community development Response to climate change Management of water resources Emissions management 	<ul style="list-style-type: none"> Community exchange Open events of the enterprise Annual ESG reports Media publicity Disclosure of the environmental information 	<ul style="list-style-type: none"> Funds for paired assistance: 16,500,000 CNY. Carbon dioxide emission per 10,000 yuan output value (comparable price): 5.46 tons/10,000 yuan
Media	<ul style="list-style-type: none"> Information disclosure and transparency Response to climate change Community development Promoting economic growth 	<ul style="list-style-type: none"> Official website of the Company Annual ESG reports Press release events 	<ul style="list-style-type: none"> The annual ESG report released to disclose information on the Company's ESG aspects.

*The company conducts customer satisfaction surveys twice yearly. As the 2024 annual survey is still in progress, this report contains preliminary data from the first half of the year.

ESG Governance

Under the leadership of the Board of Directors, Angang Steel established a top-down ESG governance structure that encompassed the decision-making supervision level, the business management level and the implementation level. These leaders at the three levels worked together to promote the integration of ESG management into various processes of its operational management. The Strategy Committee promoted and implemented the ESG strategies formulated by the Board of Directors to enhance the Company's ESG performance.

The ESG Leadership Office of Angang Steel is responsible for coordinating ESG management across relevant business departments and subordinate units, implementing the company's sustainable development strategy, clearly defining roles and responsibilities, and continuously deepening ESG practices.



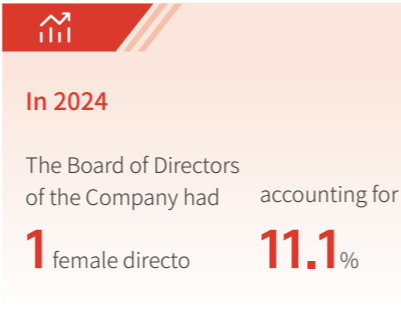
Board Independence

Relying on their professional advantages in corporate governance, environmental protection, safety management, and other aspects, independent directors of the Company brought forward opinions on major business decisions of the Company such as standardized operation and risk control. These measures helped form internal balances within the Board of Directors and guarantee science-based and professional decisions made by the Board of Directors.

The Company's Board of Directors established 4 special committees. Among these committees, independent directors occupied the majority of seats in the Audit and Risk Committee (Supervisory Committee), Nomination Committee, and Remuneration and Evaluation Committee, and also served as the conveners of the committees. The Board of Directors had a total of 9 directors, i.e., 5 external directors, and 4 independent non-executive directors that accounted for 44% of the seats.

Board Diversification

The members of the Board of Directors have diverse professional backgrounds and experiences. They are capable of providing constructive suggestions from different perspectives for the Company's strategic planning and business decision-making, which enables each committee to consider the maximum comprehensive value of stakeholders in the Company's business decision-making on all fronts. The current directors and supervisors of the Company have rich professional experience in various fields such as steel, finance, law, risk management, and enterprise management, and possess the knowledge, skills, and qualities required to perform their duties.



Board Remuneration and evaluation

According to the Company's *Evaluation Criteria 2024 for Business Performance of Leadership Team Members*, the Company included indicators related to environmental management, carbon emissions, safety, employees, rural revitalization, etc., such as carbon dioxide emissions per 10,000 yuan of output value (comparable), and consolidation and expansion of poverty alleviation efforts, as special items for assessment of management performance of its leading group.

ESG Strategies

Committed to a responsible development philosophy, Angang Steel took into account economic, social, and environmental factors in its business decision-making process. With "a responsible steel company, a beautiful future" as its core ESG management goal, it formed the "A-STEEL" path to support the implementation of its strategic vision in combination with Ansteel's cultural core and based on industry characteristics and its own foundation.

Strategic vision	A Responsible Steel Company, A Beautiful Future					
Six aspects	Aim					
	System	Transparent	Enhance	Effort	Leader	
Key actions	Establish and improve the management System	Standardize the corporate governance in a scientific way	Equip all employees with new skills	Practice the green development mode	Help build a beautiful and harmonious society	Promote a transparent communication system
Guarantee measures	Organizational guarante	Ability guarantee	Resource guarantee	Performance evaluation	Organizational guarante	

A-STEEL promotion program of the Company

Category	Description of risks and opportunities	Strategy
Governance	<ul style="list-style-type: none">The government attaches great importance to the development of ESG. Relevant departments have issued a series of policy documents. National ministries and commissions, including the Ministry of Finance, will gradually introduce basic guidelines on sustainable disclosure and climate-related disclosure for domestic enterprises, providing solid institutional guarantees for ESG development.Good ESG performance helps enhance a company's reputation and image and increase the trust from investors and consumers, thus improving the company's value and competitiveness.	Establishing and improving a management system
	<ul style="list-style-type: none">The stricter ESG regulatory requirements raised by the government and capital markets, as well as the constant updating and refinement of ESG standards, have brought compliance pressure to enterprises, and they have invested more resources to meet relevant regulatory requirements.	Standardizing corporate governance in a science-based way
	<ul style="list-style-type: none">Large enterprises own many branches and subsidiaries, and their ESG data involve multiple dimensions such as the environment, society, and corporate governance. Therefore, difficulties in data collection, processing, and analysis may affect the implementation and efficiency of ESG management.	Promoting the ability improvement of all employees
	<ul style="list-style-type: none">Inaccurate and untimely information disclosure may lead to insufficient understanding of the company's information by investors, resulting in investment decision-making errors.	Developing a more transparent communication system
The environment	<ul style="list-style-type: none">As the government attaches more and more importance to environmental protection, it has unveiled a series of policies to encourage enterprises to take environmental protection measures. Tax incentives, subsidies, rewards and other policies which are rolled out by the government provide economic incentives for enterprises.How to balance environmental investment and economic benefits to achieve sustainable development is an important issue that enterprises need to face.	Practicing a green development mode
The society	<ul style="list-style-type: none">Good social responsibility performance helps to improve employees' job satisfaction and sense of belonging, thereby enhancing their cohesion and loyalty, reducing employee turnover rates, and improving overall operational efficiency.By focusing on social issues, enterprises can discover new business growth points and innovation opportunities. For example, by developing environmentally friendly products and providing public welfare services, enterprises can expand new market spaces and achieve sustained business growth.	Building a harmonious and beautiful society together
	<ul style="list-style-type: none">By actively fulfilling social responsibilities (for example, paying attention to employees' benefits, promoting community development, and protecting consumers' rights), enterprises can significantly enhance their brand image and reputation, and increase consumers' trust and loyalty.	Setting a model of responsibility in the industry

ESG Risk Management

Angang Steel strictly abided by laws and regulations related to enterprise operations. It established and improved an overall risk management and internal control system, and identified and controlled risks based on internal and external environmental changes every year. Besides, it updated risk response strategies in a timely manner, strictly controlled the impact and risks related to sustainable development, and promoted the long-term value realization of the enterprise and stakeholders.

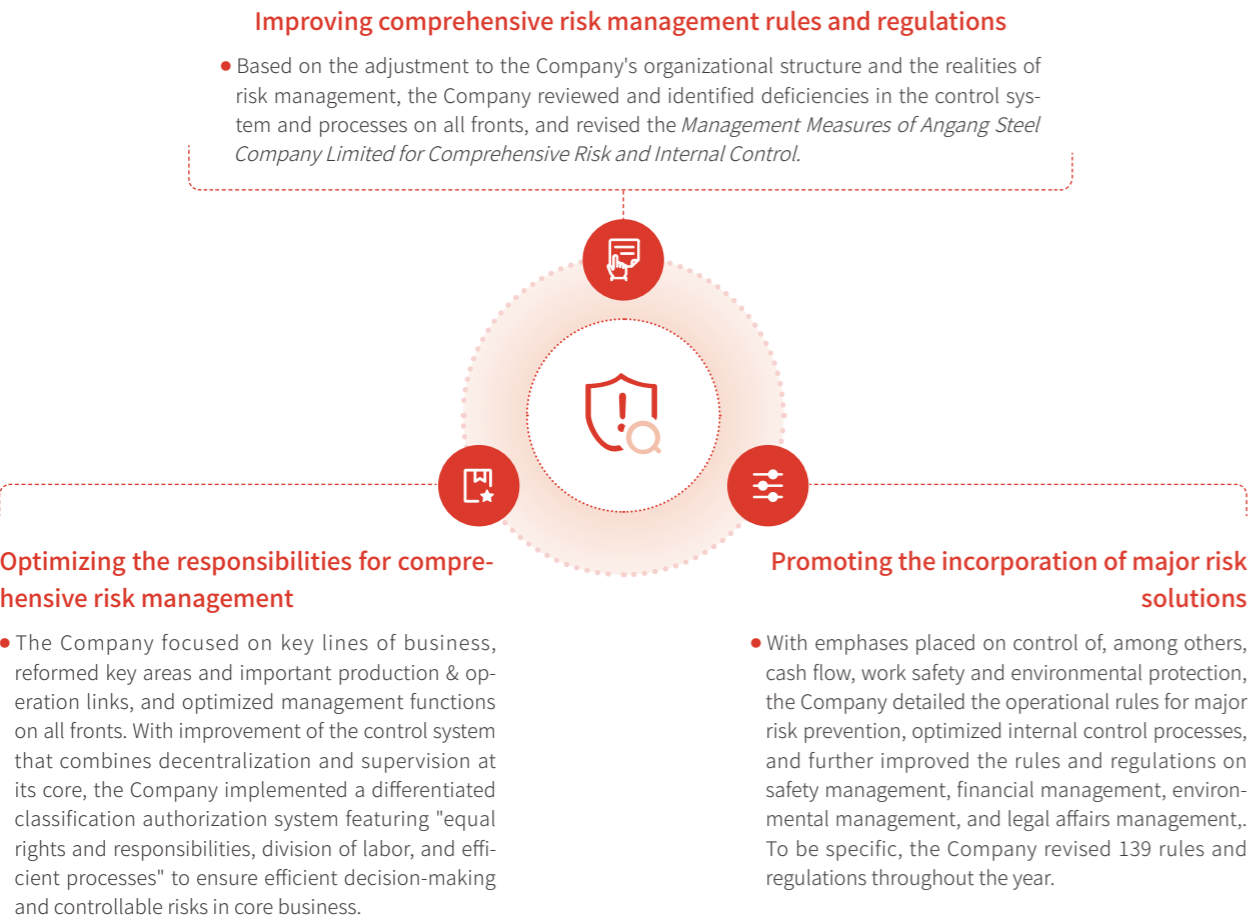
Risk management architecture

The Company established an organizational system consisting of the Board of Directors, the Board of Supervisors, the Management, the leading group for comprehensive risk management and internal control, and the risk management department (department of legal affairs and compliance) to ensure clear hierarchy, science-based decision-making, and accurate implementation of risk management.

The Strategy Committee and the Audit and Risk Committee (Supervisory Committee) under the Board of Directors standardize and guide the development and operation of the Company's risk management system, the internal control system, the accountability system for illegal operations and investments, and the legal affairs and compliance management system.

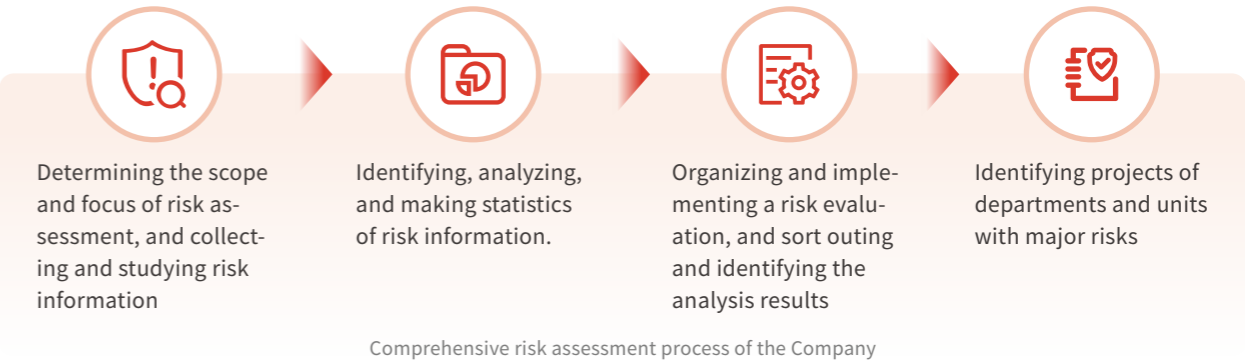
Risk management policy

According to the realities of comprehensive risk management, the Company focused on the key links of risk identification, assessment, monitoring, and response in all its departments and units, and continued to optimize and improve relevant systems.



Risk assessment process

Each department and unit of the Company, as required by the *Management Measures of Angang Steel Company Limited for Comprehensive Risk and Internal Control*, collected, identified, analyzed, made statistics of and evaluated risk information by reference to the 5 level-I risks, 73 level-II risks, and 88 level-III risks under the Enterprise Risk Classification Examples issued by the State-owned Assets Supervision and Administration Commission of the State Council.



Risk evaluation results

Each department and unit of the Company predicted the trend of risk changes and evaluated risk factors from multiple dimensions, identifying a total of 165 risks using a combination of qualitative and quantitative methods. After summary and consolidation, 3 major risks, 14 medium risks, and 9 general risks were identified at the company level. Among them, 11 risks are highly related to the environment, society, and corporate governance.

Risk level	Environmental	Social	Governance
Major risk	<ul style="list-style-type: none">Environmental protection risks	<ul style="list-style-type: none">Work safety risk	
Medium risk		<ul style="list-style-type: none">Human resource riskProcurement riskPublic opinion riskProduct quality risk	<ul style="list-style-type: none">Integrity riskInformation system risk
General risk			<ul style="list-style-type: none">Compliance riskInformation disclosure riskIntellectual property risk

Risk	Risk description	Risk level	Response measures
Environmental protection risks	Improper behaviors which include unorganized non-compliant emissions by enterprises, failure to timely identify hazardous wastes or disposal of hazardous wastes in a non-compliant manner, lack of effective disposal methods for or improper disposal of solid wastes may lead to penalties for enterprises and affect the corporate image.	Major risk	<ul style="list-style-type: none"> The Company spared no effort to promote ultra-low emissions to lay a solid foundation for achieving top-tier environmental standards (Grade "A"), with a focus on advancing the rectification of issues concerning ultra-low emissions. The Company strictly implemented the "Three Simultaneousness" principle for environmental protection in construction projects, ensuring the success in environmental impact assessment acceptance and law-based production. The Company conducted thorough identification activities on hazardous wastes. It also established a management ledger for hazardous wastes. It is required in its regulations that hazardous waste must be disposed of by qualified bidding units. In addition, the Company strictly implemented the interlinked document system for hazardous waste transfer to ensure the traceability of hazardous waste disposal destinations. The Company strictly implemented the production restriction and emission reduction measures outlined in the emergency plan for heavily polluted weather, and accurately calculated the amount of pollutant reduction.
Work safety risk	Hidden dangers and defects in the production process and equipment of a company may lead to personal safety hazards for its employees and economic losses for the company.	Major risk	<ul style="list-style-type: none"> The Company deepened the building of a dual prevention system to control risks and manage hidden dangers. It continued to identify risks across all factors and improved the control list for safety risk classification. Besides, it integrated risk classification control and hidden danger investigation & management with performance of safety responsibilities, and promoted the implementation of hierarchical control responsibilities. The Company standardized the "four unifications" management of interested parties and deepened the "integrated" control. To be specific, it achieved success in safety competency examinations by employees of interested parties a prerequisite for their access, and treated long-term interested parties as equivalent to employees in branch factories or operational areas of the organization for comprehensive management. The Company conducted emergency drills at all levels in accordance with the law, and continuously maintained firefighting readiness and monitoring to enhance the emergency rescue capabilities of professional teams.
Human resource risk	The competition in the domestic steel industry has intensified, and the battle for talents has become increasingly fierce, leading to mounting pressure for companies to recruit and lose talents.	Medium risk	<ul style="list-style-type: none"> The Company strengthened cooperation with universities and broadened channels for talent introduction. It also provided competitive salaries and benefits and established talent incentive mechanisms to attract and retain high-end talents. It improved the working environment and reduced work intensity by means of technological transformation and equipment upgrading. In addition, it built a positive and collaborative corporate culture to enhance employees' sense of belonging.
Procurement risk	If the quality indicators of purchased materials, such as composition and performance, fail to meet the company's standards, it may lead to production delays, delivery disruptions, and ultimately impact customer project timelines, potentially resulting in customer claims.	Medium risk	<ul style="list-style-type: none"> The Company strengthened the assessment and process control of suppliers. It also signed supply contracts with all its suppliers and required the suppliers to provide materials in strict accordance with company standards. Besides, it conducted strict quality inspections and established traceability mechanisms, to ensure that material quality meets standards.

Risk	Risk description	Risk level	Response measures
Public opinion risk	Negative public opinions may lead to business issues such as fluctuations in stock prices, customer loss, and termination of contracts with partners.	Medium risk	<ul style="list-style-type: none"> Adhering to the principle of information transportation and openness, the Company timely released information via official channels for clarification.
Product quality risk	Product quality risks that arise in a company's quality management process due to inadequate control over key issues or processes that may affect quality will affect customer satisfaction.	Medium risk	<ul style="list-style-type: none"> The Company implemented a strict quality management system to ensure that products meet the latest quality standards. Besides, it strengthened the quality control of key processes in each production line and promoted the implementation of quality improvement projects. It also solved key quality problems, and stabilized the control of the yield level.
Integrity risk	Bribery, bribe and other improper behaviors may damage the reputation of the enterprise and face legal accountability.	Medium risk	<ul style="list-style-type: none"> The Company established ethical standards and values and conveyed them to its employees. It also held training on corporate governance and put efforts in the development of a culture of integrity.
Information system risk	Personal data leakage, improper use of these data and other violations regarding data protection may result in reputation damage and legal risk.	General risk	<ul style="list-style-type: none"> The Company established a sound cybersecurity boundary protection and defense-in-depth system and improved its situational awareness platform. The Company raised its security technology protection capabilities to effectively prevent external illegal intrusion & access and information leakage.
Compliance risk	Violations in business management may damage the reputation of an enterprise and result in legal accountability.	Medium risk	<ul style="list-style-type: none"> The Company established reporting mechanisms to encourage employees to report violations and protect the rights and interests of whistleblowers. The Company adopted measures to improve its employees' compliance awareness and risk prevention capabilities, enabling them to master methods for identifying and handling these risks.
Information disclosure risk	Inaccurate and untimely information disclosure may lead to insufficient understanding of the company's information by investors, resulting in investment decision-making errors.	General risk	<ul style="list-style-type: none"> The Company established a dedicated investor relations management team to be responsible for daily communication and relationship maintenance with investors. The Company improved the quality of information disclosure and ensured comprehensive, authentic, accurate and timely information disclosure, so as to prevent misleading investors.
Intellectual property risk	Infringement upon others' intellectual property rights may lead to legal disputes and financial losses.	General risk	<ul style="list-style-type: none"> The Company put great efforts to create high-value core patents and proprietary technologies and applied for the registration of intellectual property achievements in time. It also standardized the licensing and transfer and strengthened the protection of business secrets and trademarks.



Pursuing Efficient Governance to Build a Solid Foundation for Enterprise

Compliance and business ethics	27
Protection of share- holders' equity	29

Angang Steel has always undertaken the original mission of "manufacturing better materials for creating better life". It, committed to building an efficient corporate governance system based on science, has continued to put more efforts in its risk control, internal control management and compliance, for the purpose of maximizing the comprehensive values of the enterprise economy, the society, and the environment.

The Company earnestly studied and implemented the guiding principles contained in the series of important instructions and directives from General Secretary Xi Jinping on improving the modern enterprise system of state-owned enterprises. It fully implemented the "two consistencies", which means it must be consistent for an important political principle of adhering to the Party's leadership over SOEs, while it must also be consistent for the establishment of a modern enterprise system as the direction of SOEs reform. To be specific, it regarded the construction of enterprise governance system and governance capacity as important tasks and necessary conditions for promoting high-quality development. Besides, it actively explored effective ways to integrate the Party leadership into corporate governance and established the legal status of the Party organization in the corporate governance structure. It fully leveraged the leadership role of the Party committee in pointing out the direction, managing the big picture, and ensuring implementation, and made sure its integration into all aspects of corporate governance. In addition, it promoted the transformation of the Party's propositions and major decisions into the strategic goals, work measures, conscious actions of all employees, and practical results of enterprise reform and development, thus providing strong political and organizational guarantees for its high-quality development.

Adhering to the tradition of continuity and keeping pace with the times, the Company summarized and refined the new practices of promoting the guiding principles of Ansteel Charter, adding new connotations into the charter. These practices formed a part of "new Ansteel" images which are made of "Ansteel as the eldest son of the People's Republic of China", "a Branded Ansteel", "an Innovative Ansteel", "a Digital Ansteel", "a Green Ansteel" and "a Sharing Ansteel".



◆ Compliance and business ethics

The Company built a corporate culture based on the rule of law on all fronts and strengthened compliance awareness and internal control. It also established a comprehensive compliance supervision mechanism and complied with all business ethics regulations to consolidate the foundation of its sustainable development.

Governance

In terms of corporate governance, the current *Articles of Association* and its annexes - *Rules of Procedure for General Meeting of Shareholders* and *Rules of Procedure for the Board of Directors* were sorted out and revised by the Company to further improve corporate governance and its standardized operation. The above-mentioned standards were revised according to the newly revised *Listing Rules of The Stock Exchange of Hong Kong Ltd.*, and the *Guidelines on the Bylaws of Listed Companies* and the *Measures for the Administration of Independent Directors of Listed Companies* issued by the China Securities Regulatory Commission, and other normative documents.

In terms of compliance and internal control, the Company established and improved an overall risk and internal control management system. In this system, the overall leadership of the Party committee is followed, and main heads of the Company are persons in charge. Besides, decisions made by the Board of Directors are supervised. Main responsibilities are assumed by the functional departments for internal control; while a supporting role is acted by business functional departments. Moreover, the Company continued to strengthen the organizational leadership of overall risk and internal control. The Audit and Risk Committee (Supervisory Committee), under the Board of Directors of Angang Steel, is responsible for reviewing the Company's financial monitoring, internal monitoring, and risk management systems, as well as its risk management and internal monitoring systems each year. The committee also discusses risk management and internal monitoring systems with the Management to ensure that the Management has fulfilled its responsibilities of establishing effective internal monitoring systems. Besides, the committee takes charge of developing and implementing internal audit systems, risk management systems, and supervision systems of the Company, and evaluating the integrity and operational effectiveness of the audit system.


Risk management

Risk	Risk description	Risk level	Response measures
Business ethics compliance risk	Bribery, bribe and other improper behaviors may damage the reputation of the enterprise and face legal accountability.	Medium risk	<ul style="list-style-type: none">• The Company established ethical standards and values and conveyed them to its employees. It also held training on corporate governance and put efforts in the development of a culture of integrity.• The Company implemented effective internal audit procedures and took actions to promptly identify and correct potential violations. Besides, it established reporting mechanisms to encourage employees to report violations and protect the rights and interests of whistleblowers.• The Company adopted measures to improve its employees' compliance awareness and risk prevention capabilities, enabling them to better understand the importance of compliance risks and master methods for identifying and handling these risks.
Data protection compliance risks	Personal data leakage, improper use of these data and other violations regarding data protection may result in reputation damage and legal liability.	Medium risk	<ul style="list-style-type: none">• The Company established a sound cybersecurity boundary protection and defense-in-depth system and improved its situational awareness platform.• The Company raised its security technology protection capabilities to effectively prevent external illegal intrusion & access and information leakage.
Intellectual property compliance risk	Infringement upon others' intellectual property rights may lead to legal disputes and financial losses.	General risk	<ul style="list-style-type: none">• The Company put great efforts to create high-value core patents and proprietary technologies and applied for the registration of intellectual property achievements in time. It also standardized the licensing and transfer and strengthened the protection of business secrets and trademarks.

Strategies and indicators

Science-based governance

The Company prepared its *Articles of Association*, Rules of Procedure for General Meeting of Shareholders, Rules of Procedure for the Board of Directors, *Rules of Procedure for the Board of Supervisors*, the *Working System of Independent Directors* and other systems in accordance with the relevant provisions of the *Company Law*, *Securities Law*, *Guidelines for Governance of Listed Companies* (issued by China Securities Regulatory Commission) and other laws and regulations, and other requirements of the *Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited.*, *Rules Governing the Listing of Shares on Shenzhen Stock Exchange*, and *Guidelines of the Shenzhen Stock Exchange for the Standardized Operation of Companies Listed*. It standardized its operation by following these regulations and formed a sound governance structure and an effective internal control system to protect the rights and interests of shareholders and create value for shareholders in the long run. In its governance system, the General Meeting of Shareholders, the Board of Directors, the Board of Supervisors and the Management follow the rule of science-based division of work, assume their respective responsibilities and pursue effective checks and balances.



In 2024

The Company held

9

meetings of the Board of Directors

The Company held

4

meetings of the Board of Supervisors

The Company held

2

shareholders' meetings

The Company held

5


training sessions on corporate governance.

Compliance operation

Following the overall plan of Ansteel for building a compliance system, the Company created a sound compliance management system and was determined to fulfill the primary responsibility for developing rule of law. It continued to enrich and optimize the compliance management system and strengthened governance in key areas and supervision & control of important links, effectively avoiding compliance risks and laying a solid foundation for its sustained high-quality development.

Clean governance

The Company put more efforts to form a better work style and strengthened the cultivation and promotion of a culture of integrity to ensure an upright and refreshing atmosphere. At the same time, it explored innovative paths for supervision methods and set up reporting hotlines in a public space. All these showed that it was willing to accept supervisions from all parties, so as to join hands with them to maintain its good image.



In 2024

The Company received

0

complaint from stakeholders.

Intellectual property protection

In order to strengthen its core competitive advantage and promote the development of international business, the Company actively developed high value-added patented technologies and unique expertise and standardized the management of intellectual property licensing and transfer processes to ensure effective protection of technological innovation achievements. At the same time, it used the intellectual properties of others in strict accordance with the law and forbade any form of infringements.

Safe protection of privacy

The Company strictly abided by laws and regulations such as the *Personal Information Protection Law of the People's Republic of China*. It built a robust network security defense system in accordance with its *Methods for Authorization Management of Integrated Smart Operation Management & Control System*. In addition, it continuously optimized the situational awareness platform to enhance the protection effectiveness of security technology and ensure effective protection of information and privacy.

Protection of shareholders' equity Governance

In strict accordance with regulatory requirements on securities of Shenzhen and Hong Kong, the Company insisted on legal and compliant disclosure of information, ensured pragmatic and efficient information disclosure of its own free will and conveyed its business performance to the capital market in a timely and accurate manner. It developed a *Work Plan to Strengthen Investor Relations* and a task list, which further enhanced its communication abilities, value management level of the capital market, and mutual recognition and promoted the common growth of intrinsic value and market value.

Risk management

Risk	Risk description	Risk level	Response measures
Risk of poor communication channels	Lack of effective communication channels may result in investors' incapacity to obtain important information in a timely manner.	Medium risk	<ul style="list-style-type: none">• The Company established a transparent communication mechanism, where regular communication was maintained and information was disclosed in a timely manner, for the purpose of avoiding information asymmetry that may trigger investor speculation and panic.• By virtue of multi-channel communication (such as online interactions, symposiums, and investor meetings), the Company established good relationships with investors.
Risk of damage to the equity of minority shareholders	A lack of an effective check-and-balance system in corporate governance may affect the equity of minority shareholders.	General risk	<ul style="list-style-type: none">• The Company established smooth complaint channels to prevent infringement upon the equity of shareholders.• The Company actively cooperated with regulatory agencies to investigate violations and punish employees with violations, in order to maintain its reputation and protect the equity of shareholders.

Strategies and indicators

Investor relations

The Company took the initiative to promote healthy communication with investors through diversified channels and built a smooth communication platform between investors and the Company. All these efforts were to ensure authentic, accurate, comprehensive, timely and fair information disclosure and enhance recognition and affirmation of the Company's value in the capital market.

Timely and accurate communication with investors

► The Company held 15 investor communication activities where it directly communicated with institutional investors such as Goldman Sachs (China) Securities Company Limited, Everbright Securities Company Limited, and Huafu Securities Co., Ltd., and conveyed its investment value to investors.

Active response to investors' concern

► The Company answered a total of over 60 hotline calls from investors;

► The Company replied to 35 inquiries on the interactive platform of Shenzhen Stock Exchange;

► The Company ensured smooth, daily communication channels between itself and investors.

Information disclosure

The Company took the initiative to follow information disclosure management requirements, with a focus on ensuring the truthful, accurate, complete, timely, and fair information disclosure. In 2024, the 2023 annual performance presentation was held in form of online live streaming combined with telephone connections and interactive text. The Chairman's speech, performance briefing and interactive Q&As and other segments were used to display the Company's business performance and development plan intuitively and efficiently. A total of 11 investors from 10 institutions participated in the presentation via telephone connection, with a peak real-time attendance of 38,000 people on the online platform. The interim performance presentation was held in the form of a webpage, and the General Manager, Board Secretary, and independent directors of the Company communicated directly with investors through the Internet. At the presentation, they introduced the investment value of the Company to investors and answered questions from investors to achieve good interaction between the Company and investors.



In 2024

The Company disclosed

4

reports on a regular basis

In terms of disclosure of provisional notices and related documents:

The Company disclosed

68

documents domestically and

60

documents overseas.

02

illuminating the Luster of Green Charm to Collaboratively Depict a Landscape of Ecological Prosperity

●	Response to climate change	32
●	Environmental compliance management	36
●	Emissions management	38
●	Resource and energy management	42
●	Ecosystem protection	46

Angang Steel implemented the green and low-carbon development strategy and consolidated the foundation of environmental management. It also promoted the green and low-carbon transformation of the industry, took multiple measures to promote energy conservation and emission reduction, and tried its best to become a model of clean production enterprises.



Response to climate change

The Company incorporated the actions of responding to climate change into its overall development plan. It also took the initiative to study and arrange action strategies to address climate change, improved carbon emission control mechanisms, and explored carbon reduction technologies. It proactively implemented innovation practices of "carbon peaking and carbon neutrality" and contributed to climate governance.

Governance

The Company regarded dual carbon development as an important political task. To be specific, it improved and issued the *Working System for Promoting Carbon Peaking and Carbon Neutrality*. It established the Leadership Committee for Promoting Carbon Peaking and Carbon Neutrality. Under the committee, it set up the Office for Promoting Carbon Peaking and Carbon Neutrality, assigned members to the office and defined their main responsibilities to promote more standardized and efficient governance on response to climate change.

Organizational structure

Leadership Committee for Promoting Carbon Peaking and Carbon Neutrality

Office for Promoting Carbon Peaking and Carbon Neutrality

Main duties

- Take charge of overall leadership of the efforts in promoting carbon peaking and carbon neutrality;
- Examine and approve the development plans and overall goals of carbon peaking and carbon neutrality, and study and make decisions on important matters and major problems in the process of promoting carbon peaking and carbon neutrality;
- Discuss and study the development trends of innovative technologies in carbon peaking and carbon neutrality and the key technologies, and define the key research and development directions;
- Examine and approve key construction investment projects and research & development projects for carbon peaking and carbon neutrality;
- Review and approve the annual work plan for promoting carbon peaking and carbon neutrality;
- Coordinate internal and external resources to support the promotion of carbon peaking and carbon neutrality.

- Implement the decision-making matters of the Leadership Committee for Promoting Carbon Peaking and Carbon Neutrality;
- Formulate and implement the overall plan for low-carbon development; promote relevant strategic cooperation and major projects; develop annual promotion plans; arrange key tasks; track and check progress;
- Define the key research and development directions for carbon peaking and carbon neutrality, determine research and development projects, and promote technological cooperation;
- Carry out carbon accounting and statistics; promote the implementation and application of product life cycle assessment (LCA); confirm the free carbon quota and the total amount of carbon emissions required for compliance; organize the management of energy-saving projects and the carbon reduction in production;
- Prepare the funding plan for carbon peaking and carbon neutrality and include it in the annual budget; complete carbon trading and carbon compliance settlement; coordinate the management of low-carbon, green steel products and the Carbon Border Adjustment Mechanism (CBAM);
- Promote collaborative efforts in carbon reduction, including pollution reduction and green expansion, and track the implementation process;
- Improve the talent pool for carbon peaking and carbon neutrality; carry out training of these talents and supervise and inspect the training results; hire external experts on carbon peaking and carbon neutrality as needed;
- Collect, study, interpret and implement policies, information and requirements related to carbon peaking and carbon neutrality, build internal and external communication platforms and organize exchanges and cooperation on carbon reduction.

Risk management

Risk identification	Scenario analysis (In the context of global temperature rise by 2° C)	Impact analysis	Level of importance	Countermeasures
Transformation risk	On December 31, 2025, the transition period of the EU's Carbon Border Adjustment Mechanism (CBAM) will come to an end, and EU importers will need to pay CBAM fees and submit equivalent CBAM certificates.	The export cost of steel products may increase, and there are potential trade barriers.	General risk	The Company carried out the CBAM carbon footprint accounting and reporting for exported products such as hot-rolled and cold-rolled steel according to the EU CBAM accounting rules, and prepared for product exports in advance.
	The government and regulatory agencies continue to strengthen their supervision of the environmental impact and energy conservation & emission reduction of enterprises, and policy requirements are becoming more stringent.	This may lead to an increase in the cost of environmental compliance in the iron and steel industry.	General risk	The Company developed the <i>Implementation Plan 2024 for Talent Training on Carbon Peaking and Carbon Neutrality</i> , and invested funds in the research and development of low-carbon metallurgical technology and the implementation of carbon reduction projects.
	In the context of realization of carbon peaking and carbon neutrality goals, the price of clean energy will rise accordingly, and the prices of resources such as energy, water resources, and raw materials will become more sensitive to the impact of climate change policies.	This may result in an increase in costs of energy and raw fuel.	General risk	The Company invested in and promoted the development of clean energy to lower down the production cost, and seized the market opportunities in advance to bring more economic benefits.
	In the context of realization of carbon peaking and carbon neutrality goals, low-carbon/zero-carbon steel products become the mainstreams on the market, and therefore there is a need to develop low-carbon products to meet the requirements of customers for carbon emission reduction.	Failure to seize opportunities may lead to a decrease in company orders and market share.	General risk	The Company actively developed low-carbon products, organized LCA carbon footprint assessment and EPD certification for products, and provided customers with green and low-carbon products to help customers reduce carbon emissions.
Physical risks	The Company is located in a temperate continental monsoon climate region, where severe weather events such as hail, cold waves, droughts and floods may occur from time to time. Under the scenario of global temperature rise by 2° C, the frequency of severe weather events may increase, exacerbating adverse effects.	These factors will adversely affect raw material procurement & supply and supply chain stability. It may cause losses to a company's equipment assets, resulting in production interruptions and adversely affecting output.	General risk	The Company strengthened emergency management for the environment, prepared emergency plans and organized drills for disastrous weather. It also cooperated with suppliers who actively responded to climate change risks, to enhance the overall risk resistance of the supply chain.
	In the context of global temperature rise by 2° C, the sea level will rise, which will delay the shipping time and affect product transportation.	This may cause difficulties or interruption of transport, affecting the delivery time and contract performance capacity.	General risk	The Company actively explored diversified types of transport and made rational arrangement for production and delivery periods to ensure the delivery of products as per the agreed time and quantity.

Strategies and indicators

Our strategic goals for climate

According to the key tasks for carbon peaking and carbon neutrality of Ansteel in 2024, we issued the *Key Tasks 2024 for Carbon Peaking and Carbon Neutrality*, specifying 16 tasks under 4 focuses, defining the main responsibilities of each unit and ensuring the achievement of climate goals on all fronts.

Low-carbon development path

Pattern and process reengineering, reduction in resource consumption, energy structure optimization, and cutting-edge technology innovation

Short-term goal	Medium-term goal	Long-term goal
The total carbon emissions are expected to reach the peak in 2025	It is expected to enter the plateau period of carbon peaking from 2026 to 2030 By 2030, the peak total carbon emissions are expected to be 4.5% lower than its peak value.	2031-2050 marks the era of carbon reduction 2051-2060 marks the era of carbon neutrality.

Our climate strategy and performance

Cultivating carbon-savvy professionals

We prepared the *Implementation Plan 2024 for Talent Training on Carbon Peaking and Carbon Neutrality*, offered intermediate and advanced training courses, and organized special training on carbon and product carbon for employees to acquire professional knowledge about life cycle assessment methods for steel products and carbon emission trading, enhance employees' low-carbon knowledge and skills, and cultivate carbon-savvy professionals.

Exploring carbon reduction technology

We succeeded in the production process for steel with low carbon emissions in the long process of blast furnace-converter and completed two batches of stable production. The project of hydrogen and liquefied natural gas (LNG) production from coke oven gas has been officially put into operation, and the pilot plant for hydrogen-based directly reduced iron in ten-thousand-ton fluidized bed has completed the individual and combined test run of hydrogen production section, granulation section and reduction section, promoting the iron and steel industry to shift from "carbon metallurgy" to "hydrogen metallurgy".

According to the Development Plan for Hydrogen Energy Industry of Liaoning Province (2021-2025), in December 2024, the Company used 2 hydrogen energy heavy-duty trucks in the port transportation route between Anshan headquarters and Bayuquan, making it the first company of Ansteel to adopt hydrogen energy vehicles for transportation. This action provided strong support for further accelerating the construction of a green Ansteel and promoting Liaoning Province's strategy of "creating a hydrogen corridor along Shenyang-Dalian Expressway".



Low-carbon technology research and development

Creating low-carbon products

We promoted the certification and selection of hot-rolled coil products as the first batch of low-carbon emission steel products in China, with a carbon efficiency level of E. We released the EPD report for thick steel plates and completed the CBAM carbon footprint accounting and reporting for four types of export products, including hot-rolled and cold-rolled products. Besides, we completed LCA carbon footprint assessments for steel used for nuclear power and steel for ship plates. We also passed the third-party certification for 5 automotive steel products that can reduce carbon emissions by 30%.



Low-carbon emission steel certificate



Thick steel plates environmental product declaration report

Developing clean energy

We participated in green electricity trading and developed and utilized clean renewable energy such as wind energy and photovoltaic power. We also promoted the grid connection of 100MW subcritical power generation units from Chaoyang Iron & Steel Co., Ltd. and 135MW supercritical power generation units from Bayuquan Steel Branch.



Green electricity certificate transaction vouchers



Panorama image of the 135MW Supercritical Gas Generating Unit Project of Bayuquan Steel Branch

Developing clean energy

Indicator	Unit	2024
Renewable energy generation (wind energy)	100 GWh	1.743
Renewable energy generation (PV)	100 GWh	0.115
Renewable energy generation (in total)	100 GWh	1.858
Proportion of renewable energy generation in total power generation (in total)	%	2.2

We explored the application of low-carbon and energy-saving logistics technologies and successfully initiated the first international standard - ISO/TC 344: Application Cases of Green Logistics Activities. We optimized the transportation structure. To be specific, we prioritized the use of clean modes of transport such as railways and water transport for long-distance transportation, promoted the transformation from scattered transportation to centralized transportation and multimodal transport (including the container-based transportation system), and updated the motor transportation vehicles to pure electric vehicles, plug-in hybrid electric vehicles and fuel cell vehicles.



Participating in the formulation of the international standard project Application Cases of Green Logistics Activities.

Promoting low-carbon logistics

Indicator	2022	2023	2024
Total amount of greenhouse gas emissions: direct (Scope 1) emissions (ton of carbon dioxide equivalent)	52,392,911	52,246,448	As data of carbon emissions in 2024 were not audited by a third party, this report only discloses information regarding carbon dioxide emissions and density of the three bases in 2022 and 2023.
Total amount of greenhouse gas emissions: indirect (Scope 2) emissions (ton of carbon dioxide equivalent)	2,733,502	3,181,357	
Total amount of greenhouse gas emissions (ton of carbon dioxide equivalent)	55,126,411	55,427,807	
Greenhouse gas emission density (per ton of steel)	2.07	2.07	

Low carbon honor

- The project of "Practicing the Concept of Green and Low-Carbon Development to Increase the Proportion of Clean Transportation" was included in the list **(the first batch) of special pilot tasks for building a strong country of green and low-carbon transport by the Ministry of Transport**.
- The project of "Key Technologies and Industrialization of Low-carbon, Low-cost, Green, Nano-based and High-performance Concrete" won **the Gold Award at the 27th National Invention Exhibition and was selected into the Typical Cases 2024 of Green Technological Innovation by the Patent Protection Association of China**.

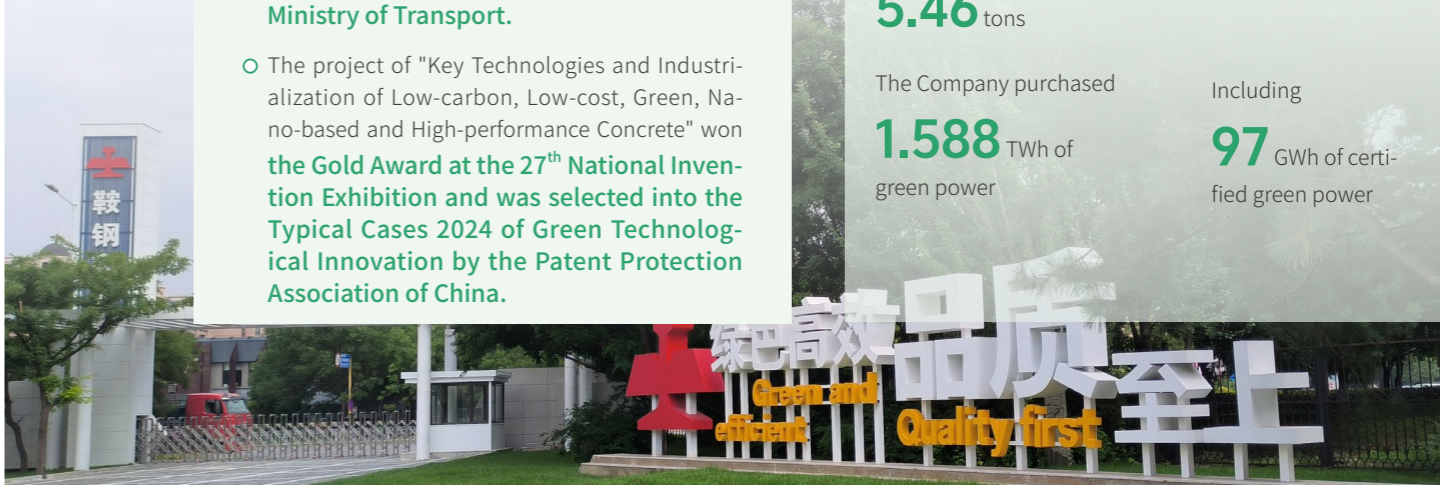


In 2024

The Company's carbon dioxide emission per 10,000 yuan output value (comparable price) reached down **1.4%** from 2023

5.46 tons

The Company purchased **1.588** TWh of green power Including **97** GWh of certified green power



◆ Environmental compliance management

The Company continued to improve its environmental management system and identified and actively responded to potential environmental risks. It also strengthened environmental emergency response, promoted improvement with goals, and worked to reduce the impact of production and operation activities on the environment, for the purpose of achieving sustainable development.

Governance

Management systems

- The Company strengthened environmental governance supervision, formulated the *Evaluation Criteria 2024 for Business Performance of Leadership Team Members*, and incorporated indicators such as environmental management, pollutant emissions and energy conservation into the business performance evaluation of the Company's leadership team.
- The Environmental Management Department was established to be responsible for the daily environmental management affairs of the Company. Each factory under the Company set up a secondary organization for environmental management to ensure that environmental management concepts can be integrated into specific business and frontline production processes.
- In 2024, the Company had 936 full-time environmental management personnel at all levels.

Management regulations

- The Company developed its standards such as the *Key Tasks 2024 for Environmental Protection, Implementation Measures for Environmental Protection Talks, Management Measures for Ecological Environment Protection, Measures for Holding Leaders Accountable for Environmental Protection, and Management Measures for Automatic Environmental Detection Facilities*. The standards were formulated to strengthen the environmental management responsibility system and ensure that environmental management is well-grounded, standardized and regulated.

Risk management

Risk	Risk description	Level of importance	Countermeasures
Environmental compliance risk	If a construction project fails to complete the relevant environmental approval procedures in a timely manner, the construction project may be considered as illegal or cannot be put into operation on schedule.	Major risk	The Company ensured 100% implementation rate of "three simultaneousness" principle for environmental protection of construction projects. It treated environmental protection facilities with the same level of importance as production facilities in terms of management, carried out orderly evaluation on the operation of environmental protection facilities, and ensured compliance with emission standards and success in environmental impact assessment acceptance.
Environmental supervision risk	Inadequate environmental management may lead to the volatilization of toxic and harmful gases, causing atmospheric pollution. The discharge of improperly treated water into the external environment may cause water environment pollution.	Medium risk	The Company strengthened environmental supervision and management and promoted the responsibility system for environmental management. It also carried out special inspections on the operation of environmental protection facilities, management of hazardous solid wastes and license of pollutants discharge, and ensured the full implementation of environmental management systems.
Environmental emergency risk	Natural disasters, extreme weather conditions, or adverse meteorological conditions may lead to environmental pollution incidents, and improper human operation of facilities may cause environmental emergencies.	Medium risk	The Company strengthened environmental emergency management, purchased emergency supplies and emergency equipment, and formed emergency rescue teams. It also conducted emergency drills to enhance the ability to respond to and deal with environmental emergencies.

Strategies and indicators

Increasing investment in environmental protection

The Company maintained a stable investment for environmental protection efforts, providing sufficient financial support for the implementation of environmental protection projects and the research & development of environmental protection technologies. In 2024, the total funds invested in environmental protection reached 5.597 billion yuan.

Indicator	2022	2023	2024
Total annual investment in environmental protection ('0,000 CNY)	87,715	703,573	559,705

Setting environmental goals

The Company set annual environmental protection target values and defined the responsible departments for the targets. It also tracked and evaluated the implementation of these targets to achieve the target-based environmental management. In 2024, the Company fulfilled all its environmental performance indicators and had no major environmental pollution accidents throughout the year. It also achieved 100% for all three factors - the implementation rate of "three simultaneousness" principle for environmental protection of construction projects, the compliance disposal rate of hazardous wastes and the compliance usage rate of radioactive sources.

Indicator	Goal
Implementation rate of "three simultaneousness" principle for environmental protection of construction projects	100%
Compliance disposal rate of hazardous wastes	100%
Compliance usage rate of radioactive sources	100%
Major environmental pollution accidents	0

Launching special inspections

The Company continued to carry out special inspections on environmental protection, including special inspections on the operation of environmental protection facilities, management of hazardous solid wastes and license of pollutants discharge. All problems found have been rectified to ensure the stable operation of environmental protection facilities.

Strengthening environmental emergency management

The Company prepared the *Comprehensive Emergency Response Plan for Environmental Emergencies*. It strengthened environmental emergency management, purchased emergency supplies and emergency equipment, and formed emergency rescue teams. It also conducted emergency drills to enhance the ability to respond to and deal with environmental emergencies.



◆ Emissions management

The Company intensified efforts in pollution prevention and control and set stricter emission control targets year by year. It also implemented ultra-low emissions and continuously promoted comprehensive pollution control such as air pollution emission control and waste disposal, so as to reduce the adverse impact of production and operation on the environment.

Governance

The Company incorporated indicators such as sulfur dioxide, nitrogen oxides and chemical oxygen demand (COD) in the annual business performance assessment of the company's management. It promoted the linkage between pollution control performance and leadership performance, made pollution prevention and control a "top leadership project" and provided guarantees for winning the battle against pollution.

Indicator	Goal
Sulfur dioxide emissions	≤ 6,800 tons
Nitrogen oxide emissions	≤ 20,100 tons
Particulate matter emissions	≤ 5,750 tons
COD emissions	≤ 55 tons

Risk management

Risk	Risk description	Level of importance	Countermeasures
Compliance risk of pollutant emissions	Unorganized non-compliant emissions by enterprises may result in environmental penalties.	General risk	The Company established a solid foundation for becoming an environmental performance A-level enterprise and focused on promoting the rectification of ultra-low emission problems.
	Inadequate emergency response to heavily polluted weather may result in penalties for a company and negative impacts on corporate image.	General risk	The Company strictly implemented the emission reduction measures outlined in the emergency plan for heavily polluted weather to protect clear blue skies where it operated its business.
Compliance risk of waste disposal	Lack of effective disposal methods or improper disposal of solid wastes may result in penalties for a company.	General risk	The Company continuously strengthened the standardized management of solid wastes, maintained the ledger for management of general solid wastes, and achieved standardized management of the whole process from solid waste generation, transportation, utilization to disposal.
	Failure to timely identify or properly dispose of hazardous wastes may result in penalties for a company.	General risk	The Company took solid steps to identify hazardous wastes and established a management ledger for hazardous wastes. It also implemented the interlinked document system for hazardous waste transfer and ensured a traceable destination of hazardous waste disposal and "zero discharge" from the plant.

Strategies and indicators

Pollutant management

The Company invested 9.245 billion yuan to implement 445 ultra-low emission transformation projects. In 2024, it fulfilled the indicators for total amount of pollutants, with significant reductions of the actual emissions of sulfur dioxide, nitrogen oxide and COD compared with the planned targets.

Indicator	2022	2023	2024
Total emissions of sulfur dioxide (ton)	8,237.9	7,564.2	6,040.8
Total emissions of nitrogen oxide (ton)	25,686.3	22,349.6	18,484.2
Total emissions of particulate matters (ton)	11,195.4	10,952.7	5,018
COD emissions (ton)	52.7	50.9	49.42

The desulfurization and denitrification project promotes ultra-low emissions



To promote ultra-low emissions, Chaoyang Iron & Steel Co., Ltd. has implemented the sintering desulfurization and denitrification project. In this project, it adopts equipment or processes such as CFB semi-dry desulfurization and front-end circulating fluidized bed to achieve the "six cleaning functions" (including desulfurization, defluorination, dechlorination and demercuration), and cuts down SCR denitrification gas consumption by 47%. Efficient ultimate dust removal of the project results in dust emission concentrations below 1 mg/Nm³, far below 10 mg/Nm³ required by the protocol. The project was put into operation in June 2024, with NO_x emissions of 37 mg/Nm³, SO₂ emissions of 14 mg/Nm³ and particulate matter emissions of 0.5 mg/Nm³, all of which were better than the ultra-low emission requirements.



Bayuquan Steel Branch is awarded as an environmental performance A-level enterprise in Liaoning Province.



Bayuquan Steel Branch invested over 2.6 billion yuan to complete the ultra-low emission transformation of the whole process, achieving a significant reduction in pollutant emission intensity. Its emissions of sulfur dioxide, particulate matters and nitrogen oxide per ton of steel were 0.1 kg, 0.35 kg, and 0.5 kg, respectively, which were 71.4%, 49.3%, and 58.3% lower than that before the ultra-low emission transformation, reaching an advanced level in the industry. In 2024, Bayuquan Steel Branch transformed the entire process of ultra-low emissions and became the first environmental performance A-level steel enterprise in Northeast China.

Pollutant	Emissions before ultra-low emission transformation (kg/t of steel)	Emissions after ultra-low emission transformation (kg/t of steel)	Emission reduction ratio	Designed steel output (ton/year)	Emission reductions (ton/year)
Particulate matters	0.69	0.35	49.28%	6,500,000	3,202.89
SO ₂	0.35	0.1	71.43%	6,500,000	4,642.86
NO _x	1.2	0.5	58.33%	6,500,000	3,791.67



Bayuquan Steel Branch:Performance A-level leads to ecological integration.

Waste management

Standardized management of solid wastes

- The Company maintained the ledger for management of general solid wastes and created solid waste generation lists, summary tables for solid waste flow and record forms, ledgers & lists for ex-factory process on a monthly, quarterly and annual basis, achieving standardized management of solid wastes throughout the entire process of generation, transportation, utilization, and disposal;
- The Company carried out the comprehensive utilization evaluation of industrial solid waste resources and prepared standardized management files for industrial solid wastes in terms of generation, storage, disposal, etc.,.It also removed construction wastes in time and maintained the clean factory sites.

Compliance disposal of hazardous wastes

- In terms of bulk hazardous wastes of coal tar, the Company handled transfer procedures in strict accordance with the national requirements for utilization of hazardous wastes, thus ensuring compliant and legal management of hazardous wastes throughout the entire process.
- The company requires the disposal unit to provide a compliance disposal report for the hazardous waste transferred in each vehicle trip, so as to ensure harmless and compliant disposal.
- The company organizes and conducts special inspections of hazardous waste storage facilities during the flood season, and improves the rainproof facilities of the storage facilities for waste mineral oil in the hot rolling and steelmaking areas to ensure that the "three simultaneousness" measures are in place and that the entire process of hazardous waste management is compliant and legal.

Indicator		2022	2023	2024
Hazardous waste	Total amount (ton)	0	0	287,000*
	Density (ton/ton of steel)	0	0	0.011
Non-hazardous waste	Total amount (ton)	148,000	146,000	146,000
	Density (ton/ton of steel)	0.00835	0.00830	0.0057

*In 2024, due to the change in the statistical caliber of hazardous waste of the company compared with that in 2023 and previous years, there was a significant increase in this data. 100% of the hazardous waste generated by the company's operations has been treated harmlessly.

In 2024,

100%

was reached by the Company in terms of the compliance disposal rate of hazardous wastes.

100%

was reached by the Company in terms of the compliance usage rate of radioactive sources.

100%

was reached by the Company in terms of implementation rate of "three simultaneousness" principle for environmental protection of construction project.

Resource and energy management

The Company focused on advanced technology application and process optimization, achieved the efficient energy utilization, water resource recycling and full utilization of raw fuel, and improved resource utilization efficiency on all fronts.

Governance

The Company set short-term, medium-term, and long-term goals for the utilization of energy and water resources and followed the principle of rigid regression to annual targets based on indicator plans. It specifically defined the annual goals for indicators such as comprehensive energy consumption per ton of steel, fresh water consumption per ton of steel and converter gas recovery. The monthly performance appraisal was conducted to promote management and achieve efficient utilization of energy resources.

Indicator	Goal
Comprehensive energy consumption per ton of steel	≤ 588 kg standard coal/ton
Fresh water consumption per ton of steel	≤ 2.0 tons/ton of steel

Energy

Short-term goal

Medium-term goal

Long-term goal

By 2025, we aim to achieve a 10% reduction in comprehensive energy consumption per 10,000 yuan output value compared with that in 2020.

By 2030, we aim to achieve a 15% reduction in comprehensive energy consumption per 10,000 yuan output value compared with that in 2020, with the overall energy consumption reaching the advanced level in the industry.

We will make significant improvements in overall energy efficiency and employee energy conservation and work to become a benchmark in the industry.

Water resources

Short-term goal

Medium-term goal

Long-term goal

We aim to save 0.5 million tons of water.

We aim to save 1 million tons of water.

We aim to save 1.5 million tons of water.

Risk management

Risk	Risk description	Level of importance	Countermeasures
Energy structure risk	<ul style="list-style-type: none">Energy demand continues to grow, and low-carbon development needs to be balanced with energy security.	Medium risk	<ul style="list-style-type: none">The Company promoted the research and development of energy-saving technologies to improve energy efficiency.The Company advanced the development of clean energy and took measures to ensure energy security, address climate change and reduce environmental pollution.
Water resource security risk	<ul style="list-style-type: none">Production and operation needs to extract groundwater, and large-scale groundwater extraction may lead to a decrease in groundwater level.Production and operation will generate wastewater, and if not managed properly, wastewater leakage can cause pollution to surrounding water bodies.Production and operation activities may restrict the water use by nearby communities or surrounding enterprises, adversely affecting the lives of local residents.	General risk	<ul style="list-style-type: none">The Company carried out water management from various aspects such as "water source structure optimization, pipeline network pressure & flow reduction, process improvement, application of advanced technologies" to ensure efficient utilization of water resources.
Raw fuel security risk	<ul style="list-style-type: none">The continuous rise in raw fuel prices will increase the production costs of steel enterprises, which in turn, may squeeze their profit margins.	General risk	<ul style="list-style-type: none">The Company reduced the fuel ratio through the improvement and optimization of technologies and processes, such as stabilizing the ore blending structure to ensure the grade of incoming materials, increasing the oxygen enrichment rate, improving coke gas utilization and raising the utilization coefficient of the blast furnace. With these measures, it achieved stable, efficient and low consumption operation of blast furnaces and saved raw fuel.



Strategies and indicators

Energy management

The Company continuously carried out ultimate energy efficiency projects and invested 0.13 billion yuan to implement 33 energy-saving projects. It invested 0.14 billion yuan to implement 3 contractual energy projects. Besides, it accelerated the implementation of key projects such as the waste heat recovery project of coke oven risers and the project of dry quenching under high temperature and high pressure. It also took the initiative to improve converter gas recovery, reduced the consumption of solid fuel, coal gas, steam and electricity, and promoted energy efficiency improvement in all respects.

Indicator		2022	2023	2024
Energy	Total direct and indirect energy consumption (ton of standard coal)	15,047,774	15,282,414	14,280,700
	Density (ton/ton of steel)	0.564	0.572	0.561
Actual value of comprehensive energy consumption per 10,000 yuan industrial output value	Ton of standard coal/10,000 yuan	/	2.05	1.97
Year-on-year decrease percentage of the actual value of comprehensive energy consumption per 10,000 yuan industrial output value	%	/	/	3.8
Actual value of comprehensive energy consumption per ton of steel	kg standard coal/ton	/	572	561

Converter efficiency improvement in the second branch of the Steelmaking Plant

The Company implemented the converter efficiency improvement project for the second branch of the Steelmaking Plant. The transformation of the oxygen lance system and the forced circulation transformation of the converter boiler system increased the total recovery amount of converter gas and steam and further improved the oxygen supply in the furnace. Besides, these shortened the smelting time significantly, reduced the comprehensive energy cost of smelting, and achieved dual improvement in product cost & quality and equipment function. By virtue of these, the annual energy cost can be saved by more than ten million yuan.



Management of water resources

The Company launched the cooling water recycling project for the top of blast furnaces 2# and 3# in the Ironmaking Plant, achieving water conservation volume of 100 t/h. It also continued to promote the Phase I project for optimization of domestic water pipe networks, achieving water conservation volume of 108 t/h. Besides, it promoted the operation of four sets of reclaimed water reuse systems, i.e., Advanced Treatment Phase I, Advanced Treatment Phase II, Xidagou desalination system and Beidagou desalination system, transforming 33million tons of reclaimed water into alternative water sources.

Indicator	2022	2023	2024
Total water consumption (ton)	85,900,493	86,041,676	81,981,245
Water consumption per ton of steel (ton/ton of steel)	3.23	3.23	1.91
Water reuse rate (%)	98.6	98.34	98.59



Sidagou Sewage Treatment

Circular economy

The Company relied on its technological and professional advantages to carry out projects such as the converter gas and steam recovery project and the hot gas reuse project. With these projects, it improved and optimized production processes to shorten smelting time and reduce energy and raw fuel consumption during the smelting process, thus improving utilization efficiency, lowering down fuel ratio and achieving resource recycling and reuse.

Indicator	2023	2024
Iron ore consumption (kg/t)	The Headquarters: 1,663 Bayuquan Steel Branch: 1,651 Chaoyang Iron & Steel Co., Ltd.: 1,607	The Headquarters: 1,646 Bayuquan Steel Branch: 1,649 Chaoyang Iron & Steel Co., Ltd.: 1,669
Blast furnace fuel ratio (kg/t)	The Headquarters: 569 Bayuquan Steel Branch: 535 Chaoyang Iron & Steel Co., Ltd.: 537	The Headquarters: 539 Bayuquan Steel Branch: 516 Chaoyang Iron & Steel Co., Ltd.: 529

Indicator	2024
Water slag recovery volume	9.6997 million tons
Steel slag recovery volume	3.576 million tons
Renewable resources recovery volume	1.71 million tons
Total volume of scrap steel received	3.0877 million tons
Recycling rate of scrap steel	100%

Ecosystem protection

The Company improved its management mechanism for ecological environment protection and identified and took decisive measures to counter potential ecological risks. It continued to promote plant greening and ecological office and reduced the impact of production on the ecological environment on all fronts, so as to contribute to the protection of biodiversity.



Governance

The Company strengthened the awareness of ecological red lines. It prepared and implemented its standards such as the Management Measures for Ecological Environment Protection and set up the work plan for "Spring Beauty Action". In these documents, it defined the responsibilities for ecological protection clearly and was determined to build a strong ecological security barrier in the region.

Risk management

Risk	Risk description	Risk level	Countermeasures
Impact on the ecological environment	<ul style="list-style-type: none">● Toxic and harmful gases such as benzene, hydrogen sulfide and ammonia can be generated during the steel production process. Their leakage will have adverse effects on the surrounding ecological environment.● Improper disposal of radiation, sewage and hazardous wastes during the production and operation may cause pollution to local species, groundwater and soil.	Medium risk	<ul style="list-style-type: none">● The Company installed the fixed monitoring and alarm devices for toxic and harmful gas in areas involving toxic and harmful gases such as gas holders and gas pipelines to strengthen gas leakage monitoring and early warning.● It carried out radiation compliance management and organized emergency drills for radiation to enhance nuclear and radiation safety assurance capabilities.
Impact on biodiversity	<ul style="list-style-type: none">● The uncontrolled logging and stacking of debris within the production and operation area may affect the original ecological balance and pose a risk of biodiversity degradation.	Medium risk	<ul style="list-style-type: none">● The Company planted trees, organized greening and landscaping of the plant area, and cleaned up debris in the green space. It also protected the ecological environment of the plant area and eliminated deforestation in all construction land under management.

Strategies and indicators

The Company strengthened its awareness and ability of ecological environment protection and actively promoted environmentally friendly green production and office. It also built ecological plants and tried its best to reduce the impact of steel making on the natural environment and ecosystem.



In 2024
The Company was awarded as the title of "Benchmark Enterprise for Green Development"



Enhancing the awareness and ability of ecological protection

- The Company launched the "Environment Day" publicity campaign, organized the publicity on protection of the water source of Yushi Reservoir (in Yingkou City), tree planting and garbage cleaning activities, and enhanced the awareness of ecological environment protection among all staff.
- The Company organized the revision, training and drills of radiation emergency plans, as well as professional knowledge training for radiation workers. Chaoyang Iron & Steel Co., Ltd. held the Chaoyang Emergency Drill 2024 for Radiation Accidents themed as "'Nuclear' Harmony in Chaoyang to Boost Ecological Progress". Bayuquan Steel Branch conducted a comprehensive inspection on the safe use of 27 radioactive sources and 10 radiation devices, carried out centralized assessments of radioactive sources positions, and eliminated radiation environment risks.



Promoting ecological office and ecological plants

- The Company promoted ecological office, formulated and implemented the corresponding control standards for pollutants such as wastewater, exhaust gas and solid wastes, and integrated ecological protection into all aspects of production and operation.
- Bayuquan Steel Branch actively carried out the comprehensive rectification activity themed as "Spring Beauty Action". In this activity, it organized a factory appearance team to clean up more than 200 vehicles (about 200 tons) of dead trees and weeds, planted and transplanted more than 200 trees, transplanted more than 100 shrubs, and cleared debris in the green space of 75,000 m².



Striving for Harmonious Development Based on Mutual Inclusiveness and Collaboration

●	Employee growth	50
●	Product quality and services	56
●	Innovation-driven development	60
●	Supply chain safety	66
●	Rural revitalization	68
●	Protection for the beautiful city	70
●	Public welfare and charity projects	71

Dedicated to fostering the collective development of employees, communities, suppliers and other stakeholders, and committed to delivering high-quality products and services, Angang Steel worked with all parties to establish a development ecosystem rooted in mutual inclusiveness and collaboration, showcasing its responsibility and dedication.

◆ Employee growth

Adhering to a people-centered philosophy, the Company continuously enhanced the protection of employees' rights and interests and safeguarded their health and safety. It also assisted them in achieving their values and strived to create a broad, fair, and healthy development platform for them.

Governance

As the primary department responsible for human resources management, the HR department is in charge of protection of employees' rights and interests, diversified employment, employee training, etc. It formulated development plans for human resources, improved the job management system, and established a multi-channel talent selection and development system.

In terms of occupational health and safety for employees, the Company assigned dedicated management personnel and formulated 3 management systems, including the *Regulations for Rewarding Reports on Work Safety Violations*. It also revised 7 core systems, such as the *Safety Management Measures for Stakeholders*, and issued the *Provisional Regulations for Rewarding Reports on Work Safety Violations*. Besides, it continued to implement management procedures, such as the *Management Procedures for Hazard Identification and Risk Assessment*, *Management Procedures for Labor Protective Supplies*, and *Management Procedures for Occupational Health*.

Risk management

Risk	Risk description	Risk level	Countermeasures
Labor dispute risk	The iron and steel industry involves a large number of job types, positions, and employees. If gaps exist in the management process of employees' rights and interests or employees' demands are improperly handled, it may lead to labor disputes.	Medium risk	<ul style="list-style-type: none">The Company improved the management standards for labor contract and response mechanisms of employees' demands, attached enough importance to employees' demands, and focused on addressing potential issues.
Talent loss risk	The intensified competition in the iron and steel industry may lead to talent loss pressure.	Medium risk	<ul style="list-style-type: none">The Company strengthened cooperation with universities and expanded channels for talent introduction. It offered competitive salaries and benefits.The Company improved the work environment through technical transformation and equipment upgrading.The Company built a positive and collaborative corporate culture to enhance employees' sense of belonging.
Occupational health risk	If protective measures are not properly implemented during steel production, it may lead to occupational health risks for employees.	Medium risk	<ul style="list-style-type: none">The Company established occupational disease files and strengthened occupational health monitoring.The Company provided protective equipment and strengthened the standard management and use of equipment.The Company conducted regular training on occupational disease prevention and control to improve employees' self-protection awareness.

Strategies and indicators

Protection of legal rights and interests

The Company strictly complied with national laws and regulations such as the *Labor Law of the People's Republic of China* and the *Labor Contract Law of the People's Republic of China*. It enforced internal employment regulations, including the *Labor Contract Management Measures*, and established a protection mechanism for employees' rights and interests in areas such as equal employment, equal pay for equal work, and democratic management. It also offered competitive salaries and benefits and made efforts to construct a development platform characterized by dignity and excellence.

Safeguard Human Rights

- The Company upheld the principle of equal employment, and established and implemented fair recruitment and employment policies.
- The Company upheld gender equality and diversity in ethnicity and beliefs, remained committed to equal pay for equal work, and prepared explicit stipulations to ensure the protection of employees' privacy while prohibiting forced labor and child labor.
- The Company strictly abided by the *Special Collective Contracts for Protecting Female Employees' Rights*, implemented the *Regulations Concerning the Labor Protection of Female Staff and Workers*, and respected and protected female employees' rights and interests.

Salary and Welfare

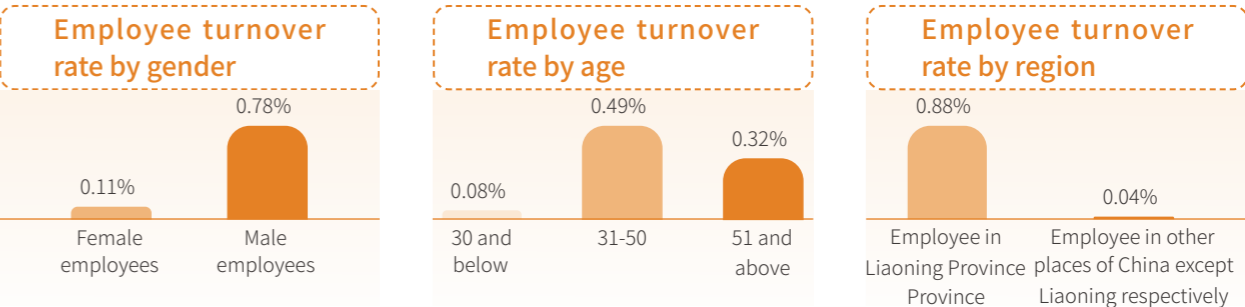
- The Company improved the wage adjustment mechanism and established a three-in-one evaluation system for assessing production & operation, efficiency, and performance. It integrated organizational performance with job performance to reflect the principle of distribution according to work. It also continued to implement the first restricted stock incentive plan for key talents to ensure both fairness and motivation in salary distribution.
- The Company provided employees with paid annual leave, home leave, marriage and bereavement leave, maternity leave, etc., implemented the enterprise annuity plan, and purchased the enterprise aid liability insurance. With the above measures, it established a four-in-one medical security system consisting of the "basic medical insurance, excess medical insurance, corporate supplementary medical insurance, and medical relief funds", and paid the insurance premiums in full amount and on schedule.

Democratic Management

- The Company continued leveraging platforms such as staff and workers' representative congress and labor unions to strengthen democratic management. With channels like the open day for democratic management, collective discussions, online employee feedback systems, and on-site visits by leaders, it enhanced the communication between the Company and employees.
- The Company carried out democratic evaluations and appraisals to improve the effectiveness of democratic management.

Diversified employment

The Company optimized its workforce structure, implemented a diversified employment policy, and created a diversified talent system that aligned with the enterprise development.



In 2024

The Company had a total of

25,028 employees

It recruited

272 new employees

Its employees' satisfaction scored

4.5 out of 5 points

Its proportion of female managers was

4.31%

Its rate of signing labor contracts maintained

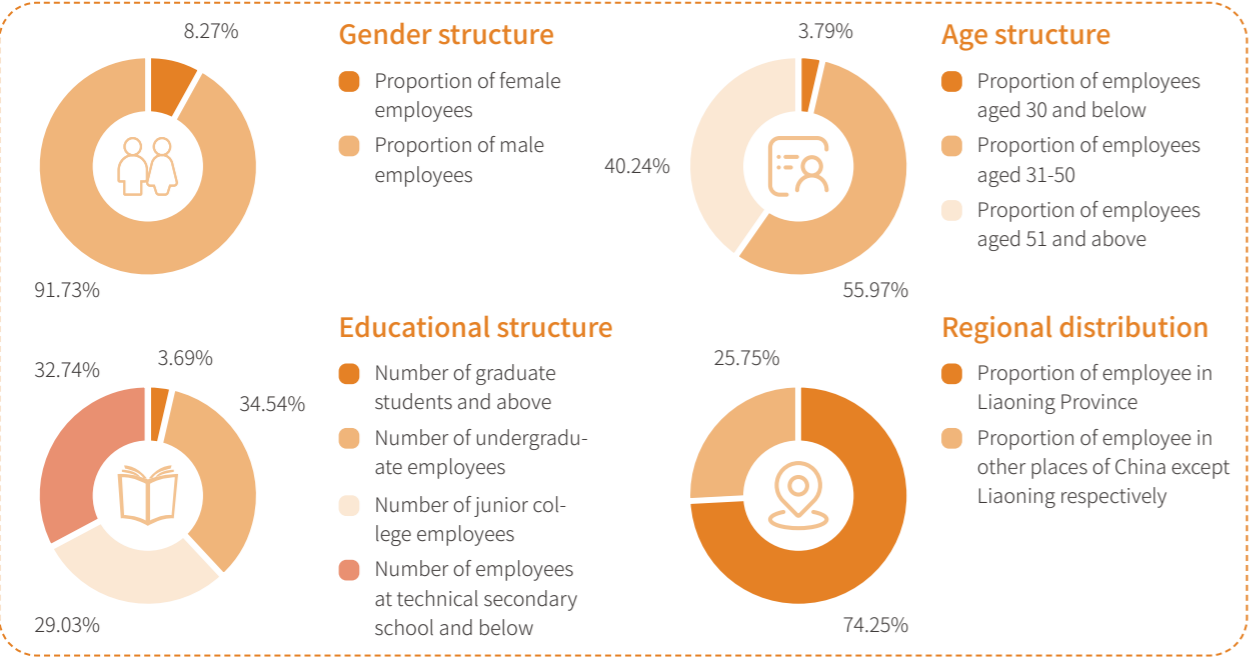
100%

Its coverage of social insurance reached

100%

Its democratic evaluation rate for grassroots units achieved

100%



Career development and training

Adhering to the "talent-driven enterprise development" strategy, the Company strengthened talent pipeline development and focused on specialized talent training. It improved the talent selection and development system through multiple channels and enhanced talent value from various perspectives.

Providing smooth career development pathways

The Company prepared and issued a notice on improving the position rank, standardized position rank settings, and provided various smooth development channels for talents.

Improving the talent selection and development system



Talent selection

The Company implemented and advanced the "Ansteel Talent Program", selecting 17 leading talents, 102 outstanding talents, and 268 key talents.



Talent cultivation

Cultivation of talents with high-level education background: The Company promoted the construction of postdoctoral research workstations and implemented a "project + talent" training model.

Specialized talent development: The Company established and issued 8 training programs for talents in areas such as "dual carbon goals" and digitalization. Through medium and advanced training courses and specialized training, it achieved the targeted development of specialized talents. In 2024, it completed 22 specialized talent training programs, expanded the specialized talent pool to 884 people, and appointed 51 personnel to temporary posts for further cultivation.

Comprehensive skill enhancement: The Company continuously improved employees' job skills and competencies by refining general model designs, training question banks, and assessment methods.

Indicator	2022	2023	2024
Annual cumulative training sessions for employees (Nos)	46,631	42,358	42,557
Coverage of training to employees (%)	100	100	100
Per capita training time of employees (hours)	65.9	66.1	66.3
Per capita training time of female employees (hours)	65.9	66.1	66.3
Per capita training time of male employees (hours)	65.9	66.1	66.3
Per capita training time of senior managers (hours)	110	110	110
Per capita training time of middle managers (hours)	90	90	90
Per capita training time of grass-roots employees (hours)	48	48	48



In 2024

The Company invested
12.404 million yuan

Employee care

The Company always kept employees' needs in mind and sincerely addressed their concerns. By implementing key livelihood projects such as "Bringing Tangible Benefits to Employees", it improved employees' work and rest areas, organized a variety of cultural and recreational activities, and worked together with employees to build a warm and harmonious Ansteel family.

Assisting financially struggling employees

During festivals and holidays, the Company organized "Sending Warmth" activities, reaching out to 8,658 employees and distributing relief funds totaling 4.1025 million yuan.

The Company launched the "Education Assistance in Fall" program, providing support to a total of 870 students and distributing 578,500 yuan as scholarships.

Caring for disabled employees

On the International Day of Persons with Disabilities, the Company visited disabled employees and distributed gifts to 1,393 disabled persons.

Supporting female employees

The Company purchased health insurance for female employees, effectively reducing their medical burden. In 2024, the Company handled insurance claims for 4 female employees.

Ensuring the well-being of grass-roots employees

The Company improved the infrastructure of employee rest rooms and operating rooms, improving their work and rest conditions. It renovated a total of 162 operating rooms, 266 rest rooms, 61 bathrooms, 9 meeting rooms, 8 canteens, 16 bathing pools, and 4 parking lots.

The Company continued to launch the event themed as "Sending Coolness in Summer and Warmth in Winter". It allocated 197,000 yuan as special funds for the "Sending Coolness" campaign and distributed 2,000 boxes of salt soda water, 2,000 boxes of purified water, 2,000 boxes of yogurt, and 7,000 towels. It also provided cotton vests for 1,458 employees who engaged in long-term strenuous work outdoors.

Support for employees of the interested parties

Angang Steel paid attention to the comfort in terms of temperature of the employees of the interested parties. To be specific, Cold Rolling Mill under Angang Steel invested 487,700 yuan to install 210 air conditioners, which effectively improved the working and rest conditions of these employees. With the attention paid to the problem of being prone to catching a cold due to long distances between changing rooms and bathing areas in cold weather, it installed direct stairs and improved the working and living environments of employees of interested parties, bringing tangible benefits to employees.



Air volleyball competition among employees



Showcasing the Grace of Women and Savoring the Aroma of Delicacies" Themed Food Event on the International Women's Day



"Sending Warmth with Dense Festive Flavors" Themed Comfort Event for Young Employees in Dorms During Spring Festival



◆ Product quality and services

The Company continued to improve its product quality and service system. It controlled product quality pursuant to a strict standard, solved customer problems with high efficiency, and created an excellent experience for customers with high-quality products and personalized services, thus winning customer trust and satisfaction.

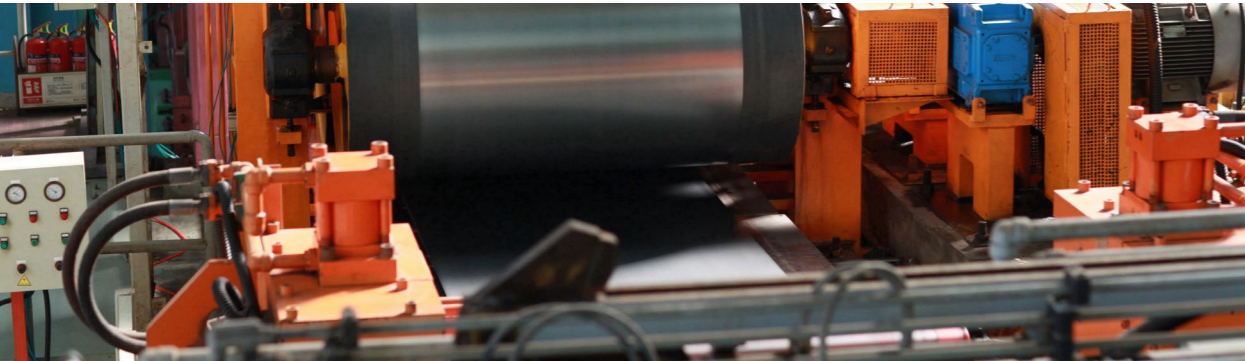
Governance

The Company established and implemented the quality management system required in the GB/T 19001-2016/ISO 9001:2015 standard, and passed the certification. It revised core quality management regulations, including the *Management Procedures for Product Monitoring and Measurement*, *Management Procedures for Nonconforming Products*, and *Management Procedures for Product Packaging and Labeling Protection*, ensuring that its quality management system aligns with national laws & regulations, and relevant management requirements and achieves effective operation.

The Company's measurement management system complied with the requirements of the GB/T 19022-2003/ISO 10012:2003 standard, with the measurement management system certification obtained. Its testing and calibration laboratory complied with the ISO/IEC 17025:2017 standard and obtained CNAS accreditation. In 2024, the Company revised 4 systems including the *Management Procedures for Metrological Confirmation of Monitoring and Measuring Equipment* and strengthened the construction of the measurement management system. It continuously improved its management level of product quality test and ensured quality control.

Risk management

Risk	Risk description	Risk level	Countermeasures
Product quality risk	If key issues or stages affecting quality are not properly controlled, it may lead to product quality risks and affect customer satisfaction.	Medium risk	<ul style="list-style-type: none">The Company implemented a strict quality management system to ensure that products met the latest quality standards.The Company strengthened the quality control of key processes in each production line and promoted the implementation of quality improvement projects. It also solved key quality problems and stabilized the control of the yield level.
Service quality risk	If the response to customer service is slow or customer service complaints are not appropriately handled, it may affect the customer experience and satisfaction.	Medium risk	<ul style="list-style-type: none">The Company optimized the customer service process and improved the efficiency of service personnel to ensure rapid response to customer needs and prompt resolution of issues.The Company launched training on a regular basis to enhance the professional capabilities of the service team and monitored the service performance in real time to ensure continuous improvements in service quality.



Production line for high-strength cold-rolled sheets

Strategies and indicators

High-quality products

The Company strictly complied with the *Product Quality Law of the People's Republic of China* and other laws & regulations. It worked to perfect the product traceability system, improved the comprehensive yield rate of products and implemented standardized documents for products according to strict criteria. Besides, it formulated and revised standardized documents for products to strictly control and improve product quality and build a strong brand image.

Controlling product quality

- The Company improved the product traceability system, allowing customers to trace the product's origin through the QR code label attached to the product.
- The Company organized the quality evaluation, review and closed-loop rectification with a focus on quality objections, quality accidents and other typical problems, so as to effectively control the key quality problems.
- The Company encouraged each production plant to promptly carry out special research and continuous improvement on the comprehensive yield rate for production lines, to address key quality issues with full efforts, and to advance the improvement of critical quality defects. In 2024, the comprehensive yield rate for steel increased to 94.06%, showing a 0.03% increase compared to that in the previous year.
- The Company implemented 88 quality improvement projects in a continuously and systematic way. The benefits of these completed quality improvement projects exceeded 50 million yuan.
- The Company ranked first in the country in terms of the market share of steel for nuclear power and steel for railway vehicles.

Promoting quality authentication

- The Company carried out third-party product certifications in line with domestic and international market demands in an orderly manner. It completed foreign certifications such as the EU CE certification, JIS re-certification for wires, Indonesian SNI certification for cold rolling products, 60E1R260 TSI certification for heavy rails, API certification for medium-thick plates and seamless products, and Malaysian SIRIM certification. It also completed various domestic certifications, including the annual CRCC certification for heavy rails, production license renewal for hot-rolled ribbed steel bars, and the supervision and spot checks on hot-rolled ribbed steel bars by the State Administration for Market Regulation.

Organizing standardization work

- The Company actively promoted product standardization to ensure that its products met both international and domestic standards, thus improving the product competitiveness. It completed and published 2 international standards, i.e., ISO 11772:2024 - *Hot-rolled Longitudinally Profiled Steel Plate* and ISO 10714:2024 - *Steel and Iron - Determination of Phosphorus Content - Phosphovanadomolybdate Spectrophotometric Method*. It also formulated and revised over 30 national/industry/group standards, including the *Hot-dip Galvanized Steel Sheets and Strips for Automotive High Hole Expansion Quenching and Partitioning Steel*.



Production line for cold-rolled silicon steel



Inspections on sample plates



Perfection inspection for offline steel coil

Indicator	2022	2023	2024
Passing rate of products (%)	99.4	99.3	99.3
Percentage of sold or delivered products to be recovered due to safety and health considerations (%)	0	0	0
Violation concerning health and safety of products and services (Nos)	0	0	0

Honors

- "Hot-rolled steel plates made of low alloy structural steel", "hot-dip aluminum-zinc-magnesium steel plates", "hot-rolled steel plates and strips made of alloy structural steel", and "thick plates made of structural steel for bridge" were awarded the title of **"Golden Cup Product" for the 2024 Training Product for Quality Brand of Physical Metallurgical Products released by the China Iron and Steel Association.**
- The Quality Inspection and Metrology Center under Angang Steel and Bayuquan Steel Branch won the **"Proficiency Testing Quality Award" for the 2024 issued by China NIL Research Center for Proficiency Testing (a Beijing company).**
- The Quality Inspection and Metrology Center under Angang Steel received the **Excellent Organization Award, the gold medal and first prize in the micrometer calibration competition, and the first prize in the geometrical measurement competition at the second National Skills Competition for Metrology and Calibration Personnel in the Metallurgical Industry.**

Products from Ansteel support the national energy infrastructure



Angang Steel supplied high-quality products for national energy infrastructure projects. Over 3,000 tons of medium-thick plates supplied by Angang Steel were successfully used in China's first domestically designed and built ultra-deep ocean drilling vessel, "Dream", contributing to the country's deep-sea exploration capabilities, equipment modernization, and guarantee of national energy security. Angang Steel exclusively won the bid to supply 19,200 tons of steel containments for 3 nuclear power projects, i.e., Phase I of Guangxi Bailong Project, Phase I of Guangdong Lufeng Project, and Phase III of Shandong Haiyang Project, supporting the construction of 6 one-million-kilowatt-class pressurized water reactor nuclear power units and contributing to the transformation of China's energy industry toward green and low-carbon development.

Thoughtful services

Upholding a "customer-centered" philosophy, the Company continuously optimized its customer service system and promoted the integration of sales, research, and production. It also strengthened technical marketing services and identified customer groups through classification and grading to provide them with precise and personalized services.

Strengthening technical marketing services

- The Company promoted the integration of sales, research, and production to effectively meet customer needs while enhancing product competitiveness and mitigating risks such as functional gaps and low operational efficiency.
- The Company optimized the classified and tiered management system for customers and strengthened the customer perception with information technology. It also evaluated customer contributions quantitatively and tailored differentiated service strategies for different types of customers, thus ensuring a precise match with their individual needs.

Solving customers' problems with high efficiency

- The Company established a management process of classifying customer needs, solving problems at different levels and clarifying post responsibilities, to efficiently solve problems of customers.
- The Company revised the *Management Procedures for Customer Complaints about Steel Products* to improve the efficiency for handling objections.
- The Company established an online smart service platform, achieving closed-loop management for dispute resolution from receiving customer complaints to making internal corrections, thus providing customers with a more efficient and convenient service model.
- It received and communicated customer complaints in a clear and efficient way, improving the problem solving and dispute handling efficiency. In 2024, the processing cycle for non-logistics disputes was 3.5 days.

Optimizing customer service experience

- In order to provide one-stop customer services covering the whole process, the Company established a service system featuring quick internal response, efficient external coordination and optimal value experience for customers.
- The Company entrusted a third party to investigate the customer satisfaction, and took rectification measures and offered feedbacks to the complaints from customers, thus improving the customer satisfaction.
- The Company strictly complied with the *Law of the People's Republic of China on Protecting Consumers' Rights and Interests, the Advertising Law of the People's Republic of China*, and other laws & regulations, ensuring the truthful and standardized disclosure of product technology, quality, and function information, and providing customers with accurate and reliable product details.

Honors

- The Company won such titles as **"Outstanding Supplier of the Year"** by China International Marine Containers (Group) Co., Ltd. and **"Excellent Partner"** by Haier Smart Home Co., Ltd.
- The Company's management innovation achievement - "Construction and Implementation of the Value Creation System under the Guidance of New Quality Marketing Power" won the **second prize of the 22nd Metallurgical Enterprise Management Modernization Innovation Achievement Award and the second prize of Enterprise Management Innovation Achievement in Liaoning Province.**



Indicator	2022	2023	2024
Number of complaints about products and services (Nos)	1,430	1,636	1,733
Percentage of complaints resolved (%)	95	97	100
Customer satisfaction (score)	93.57	93.13	92.24 [*] (First Half)
Number of complaints due to customer information disclosure (Nos)	0	0	0

^{*}The Company's customer satisfaction is calculated on a semiannual basis. Since the annual survey for 2024 is still ongoing, the data presented are the statistical figures for the first half of 2024.

◆ Innovation-driven development

The Company continuously improved its innovation system and mechanism, and promoted the development of innovative talents. It actively undertook key national technology and material research projects and strengthened digital construction and lean management, thus improving its core competitiveness.

Governance

To accelerate the establishment of a world-class technological innovation system and continuously improve its core competitiveness, the Company set up a Technology Innovation Committee and a Technical Expert Committee, for the purpose of strengthening top-level design of technological innovation and improving the decision-making capabilities and levels in technological innovation. It adjusted and improved department functions and established the Science and Technology Innovation Department which is responsible for technology development planning, scientific research management, intellectual property and brand management, etc. Besides, it released a technological innovation incentive plan and implemented policies that encouraged employee innovation to boost the enthusiasm and motivation of scientific and technical personnel to make innovations. By leveraging technological innovations as a strategic driver, it accelerated the iterative upgrade of advanced steel materials and the development of new products, continuously increasing the technological content and added value of its products. In addition, it built a high-level innovation ecosystem to continuously enhance the high-quality technology supply, efficiently promoted the transformation of scientific and technological achievements into real productive forces, and fostered a new quality productive force driven by innovation.

Risk management

Risk	Risk description	Risk level	Countermeasures
Insufficient capability in developing key technologies	The trend toward high-end and intelligent development in the iron and steel industry raises higher requirements for key technologies. A lack of independent development capabilities can reduce the product competitiveness, ultimately diminishing the brand's market influence and industry leadership.	Major risk	<ul style="list-style-type: none">• The Company allocated R&D funds reasonably according to the market demands and technical development trends, and continuously strengthened the research and development of key technologies.• The Company established close partnerships with research institutions and universities to advance technical research & development collaboratively.• The Company actively promoted equipment upgrading & transformation and introduced advanced processes, intelligent equipment, and digital technologies to enhance equipment capabilities.
Cybersecurity risk	Since the digital intelligence system is connected to external networks, the system is exposed to external cybersecurity threats such as hacker attacks and virus intrusions.	Medium risk	<ul style="list-style-type: none">• The Company established a cybersecurity responsibility system and built an in-depth cybersecurity defense framework. It strengthened the management of tiered protection of cybersecurity and improved the confidentiality management of information systems.• The Company developed a professional cybersecurity team to take on the responsibility for cybersecurity operation and maintenance.• The Company built a monitoring and early warning platform to provide real-time surveillance of the network and all connected devices & systems.

Strategies and indicators

Scientific and technological innovation

Encouraging employee innovation
<ul style="list-style-type: none">• The Company developed the Comprehensive Innovation Management Measures for Employee Innovation Studios to standardize the innovation work of employees and increase the incentives.• The Company implemented the Multi-tiered Innovation Program covering all employees across various levels and areas, and encouraged widespread participation in collective innovation activities such as the evaluation of outstanding innovation projects and the collection of advanced operating methods and rational proposals.• It selected and awarded a total of 1,015 rational proposals, summarized and promoted 227 advanced operating methods, and recognized and awarded 145 excellent innovation projects from the employee innovation studios.
Addressing key technology challenges
<ul style="list-style-type: none">• The Company actively built an original technology hub, with a clear focus on 51 key tasks in 5 areas, and addressed 8 bottleneck technologies.• The Company developed an integrated system control technology for corrosion-resistant steel plates used in marine structures, incorporating "high-purity smelting, homogenized casting blank, and steel plate structure adjustment". This breakthrough filled a gap at home and abroad and marked a world-first achievement.• The Company launched the hot galvanized, low-density automotive steel to the global market for the first time, offering an innovative material solution for vehicle weight reduction. This technological advancement was recognized in the Special Issue on the Development of Strategic Emerging Industries by Central State-Owned Enterprises.• The Company mastered the key technologies for manufacturing GPa-grade marine engineering steel, successfully manufacturing these GPa-grade marine engineering steel products, with the overall technology reaching an internationally advanced level.
Protecting intellectual property achievements
<ul style="list-style-type: none">• The Company launched 5 patent navigation projects, including "Steel for Battery Cases of New Energy Vehicle".• The Company formed patent clusters in 10 core technology areas and submitted a total of 67 invention patent applications.• The Company registered 5 products, including "Bainitic Steel Rails", on the National Pilot Platform for Patent-Intensive Product Filing and Registration.• The Company registered 30 computer software copyrights, including the "Automatic Inspection Process Platform for Sorbite Content".

Indicator	2022	2023	2024
Investment in research & development (billion yuan)	2.621	2.852	3.972
Proportion of R&D investment in main business revenue (%)	2	2.51	3.78
Number of R&D personnel (persons)	2,185	2,479	2,373
Percentage of R&D personnel (%)	7.46	8.45	10.21
Number of invention patent applications (Nos)	598	741	831
Number of granted invention patents (Nos)	567	521	540
Number of valid patents (Nos)	3,558	3,811	4,059
Number of proprietary property rights (Nos)	1 appearance design patent	2 appearance design patents	0
Number of new granted patents (Nos)	580	523	548

Honors

- 5 projects of Angang Steel were awarded the **2024 Metallurgical Science and Technology Award**, with 3 projects, including the project of "Development and Application of National Standards for Steel Plates Used in Advanced Nuclear Power Plants", receiving **the second prize**. 3 projects won awards at the **4th Shining Star Innovation Competition for Central State-Owned Enterprises**, including the project of "Development and Application of Iron-Based Powder Fuel" which received the **first prize**.
- The project of "Development and Application of Key Generic Electromagnetic Regulation Technologies for Large Metal Blank Preparation" was awarded **the second prize of the National Science and Technology Progress Award**.
- The project of "Integrated Innovation and Application of Key Manufacturing Technologies for High-Quality, Low-Cost, Green Medium-Thick Plates" won **the second prize at the 2024 Quality Technology Award of China Association for Quality**.
- The projects of "Production Method of Low-Aluminum, Low-Magnesium Zinc-Aluminum-Magnesium Coated Steel Plates and Their Coated Steel Plates" and "Production Method of A Wide-Specification Titanium-Steel Composite Plate" received **the second and third prizes, respectively, of the 3rd Liaoning Patent Award**.
- The project of "Research and Development of Equipment and Technologies for Integrated Temperature-Stress-Phase Change Control in High-Grade Special Steel Plates" of Bayuquan Steel Branch won the Excellence Award in the Employee Group at the **18th "Revitalization Cup" National Youth Vocational Skills Competition (Innovation and Effectiveness Competition)**.
- The achievement of "Building and Implementation of an Intellectual Property Management System for Large Steel Enterprises in Leading High-Quality Development" won the **first prize of 22nd Metallurgical Enterprise Management Modernization Innovation Achievement Award**.
- Achievements of Benzene Hydrogenation QC team of Angang Chemical Technology Co., Ltd. earned the second place in the **Central State-owned Enterprise Presentation Competition hosted by China Association for Quality**.

A sole supplier of the world's first 690 MPa high-strength steel under low temperature for the Northern Pioneer vessel

"Northern Pioneer", the world's first offshore vessel designed for carbon capture and storage (CCS), of which the steel materials were solely supplied by Angang Steel, successfully completed its initial sea trial in Dalian. The vessel adopted the world's first batch of 690 MPa high-strength steel under low temperature manufactured by Angang Steel. This innovation overcame 6 major technical hurdles, including managing the carbon equivalent, optimizing the yield-to-tensile strength ratio, and enhancing the crack resistance in ultra-high-strength steel with exceptional toughness at ultra-low temperatures. The successful development of this steel bridges a global gap in materials for liquid carbon dioxide storage.

Angang Steel leads the development of 3 group standards approved by China Iron and Steel Association

Relying on the technological expertise of the national key laboratory of metal material for marine equipment and their applications, Angang Steel led the drafting and development of 3 group standards, i.e., *T/CISA 369-2024 - High-tensile Crack-arresting Steel Plate for Ship*, *T/CISA 368-2024 - High Manganese Low-Temperature Austenitic Steel Plates for Ship*, and *T/CISA 373-2024 - Low-Temperature Steel Plate for LPG Ships*. These standards, now officially approved and published by the China Iron and Steel Association, can not only meet the requirements for new materials in the transition of China's shipbuilding industry toward large-scale, high-end, and specialized development, but also enhance the leadership of Angang Steel in setting industry standards for shipbuilding steel.

Building a Smart Ansteel

Angang Steel actively drove its "Smart Ansteel" initiative by enhancing top-level planning, establishing standards and improving its digital talent training system. With a focus on key areas such as data-driven decision-making in operations, exploration of "AI+" scenario innovations, and shoring up weak points in digital infrastructure, the Company aimed to accelerate its transformation and upgrading through digitalization while establishing new competitive advantages in the industry.

Improving organizational guarantee

- The Company set up a Digital Intelligence Committee, and defined the working mechanism and responsibilities of the committee and its subgroups, thus providing robust support for the effective advancement of digital work.

Improving standards and systems

- The Company led the development and release of 2 industry standards and contributed to the preparation and release of 1 group standard.
- The Company made comprehensive revisions to 6 digital management systems and established 2 new business process specifications.

Training digital talents

- The Company developed an implementation plan for digital talent training and a training program for middle and senior managers. It organized over 10 training sessions on digital talents, with over 400 participants trained.
- The Company established a digital talent pool and signed 154 Responsibility Agreements of Digital Talent Target.

Strengthening intelligent construction

- The Company continued to advance data governance and the development of a big data platform. It optimized the intelligent decision-making system, laying a solid foundation for data-driven operational decision making.
- The Company advanced the intelligent transformation of key processes and the 2.0 upgrade of intelligent manufacturing at the Bayuquan Base. Additionally, it promoted the integration of digital R&D, created pilot test scenarios, and accelerated the "AI+" drive for the digital upgrade of the industry.

Deepening cyber information security

- The Company provided around-the-clock monitoring of its internal network and strengthened Internet security management to promptly detect cybersecurity risks, with no network information security incident in 2024.
- The Company reinforced network access control and terminal security management, and leveraged the system security control function to mitigate risks.
- The Company invited experts for on-site lectures and conducted publicity campaigns through various channels to educate employees on cybersecurity regulations and enhance the cybersecurity awareness of all staff.



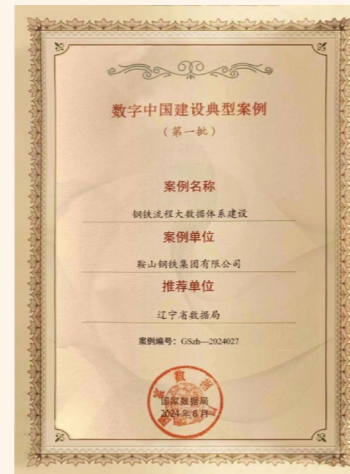
Establishing an integrated control platform for whole-process quality analysis



With an aim to tackle product quality management issues, the Company developed an integrated control platform for whole-process quality analysis built on an industrial Internet platform, with industrial big data integration as a key enabler and steel process flow data as a new factor of production. The platform bridged the information gaps across the entire production chain, integrating steelmaking, hot rolling, cold rolling, and thick plate processes. It achieved online quality data analysis, equipment monitoring, intelligent diagnosis, and full-process material quality traceability. By delivering timely feedback on manufacturing process quality, it prevented large-scale quality issues effectively and lowered the rate of defective products in upstream processes. It also increased the qualification rate of original cold-rolled products by over 2.5% and reduced rolled scrap by 0.4%.

Honors

- The Company submitted 22 pilot demonstration projects, application scenarios, and outstanding cases at the national ministerial and provincial levels. In 2024, it received **5 national ministerial-level awards and 2 provincial-level awards**.
- The Company was enrolled in the List of **"Digital Leadership"** Enterprises by the Ministry of Industry and Information Technology.
- The project of **"Innovation and Practice of Big Data Systems in the Steelmaking Process"** was selected as **one of the first exemplary cases** of Digital China construction by the National Data Administration.



Automated transport robots for the color coating production line in the Cold Rolling Mill

Lean management

The Company incorporated lean management into its production operations and reform efforts, establishing a clear strategy for a "differentiated approach in three areas". By prioritizing innovation in efficiency and profitability, it conducted lean management to drive the development of an enterprise with high performance in five aspects.

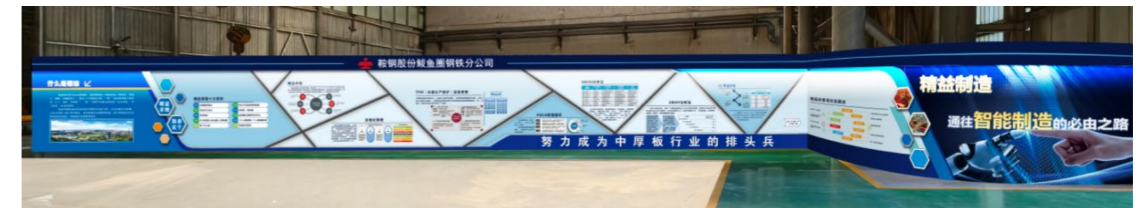
The Company actively promoted refined improvements in logistics efficiency and evaluated its current logistics management on all fronts. It identified management bottlenecks and broke away from conventional practices. It also improved the resource utilization rate systematically and minimized wastes, providing strong support for its successful completion of clean transportation assessments and monitoring.

The Company actively advanced the lean improvement project for procurement and implemented a series of effective measures with a focus on five core objectives, i.e., "quality and quantity guarantee", "on-time delivery", "reasonable pricing", "supplier management", and "procurement management enhancement". It applied multiple lean principles, such as "challenging the status quo", "correcting mistakes immediately", and "seeking feasible solutions", to drive lean management improvements throughout the entire procurement process, with significant results achieved.

Advancing multidimensional "Lean+" management optimization



Bayuquan Steel Branch deepened its lean management approach across three key areas, i.e., system and mechanism development, cultivation of comprehensive quality for all staff, and professional efficiency improvement. It refined its lean management framework by optimizing organizational functions and personnel deployment. It also developed the digital "3e" management model, incorporating e-Governance, multi-tiered e-Projects, and micro-level e-Learning. This multi-dimensional "Lean+" management optimization mechanism strengthened three core capabilities of management assurance, enterprise-wide lean implementation, and professional excellence. By applying lean principles, Bayuquan Steel Branch continued to drive cost reduction, efficiency gains, and management upgrades.



An enterprise-wide coal gas resource exploration initiative to enhance energy efficiency and reduce costs



Angang Steel applied the lean management principle in every process of its operations, prioritized key objectives and addressed difficulties. To be specific, it launched an enterprise-wide coal gas resource exploration initiative, identifying coal gas, a vital energy source throughout the production process, as a strategic focus for optimizing energy cost management. This initiative guided all cadres and employees to establish a cost-conscious philosophy, encouraging them to enhance efficiency and profitability with better production cost control. In 2024, despite the obstacles such as the overhaul of a coke oven and the temporary shutdown of a blast furnace, the Company successfully cut the boiler steam consumption by 300 t/h compared to that of the previous year, while maintaining uninterrupted waste heat supply for the heating system in Anshan City. These efforts freed up 400,000 m³/h of coal gas resources and boosted power generation by 150 MWh per hour. Even in a challenging market, Angang Steel achieved the impossible, making multiple historic breakthroughs, including the full-load operation of two CCPP units during the heating season, and reduced the external energy purchase cost by 210 million yuan.



Supply chain safety

The Company continuously improved its supply chain management, and adhered to the principles of transparent, green and smart procurement to build an open, environmental friendly, and efficient procurement supply chain. It established and refined the supplier management system, and dynamically optimized the supplier admission, evaluation, and exit mechanism, providing strong support for improving the resilience and stability of its supply chain.

Governance

The Company continuously improved its supply chain system, and revised and improved its regulatory documents such as the *Detailed Rules for Procurement Management of Assets and Materials*, the *Implementation Rules for Supplier Management*, and the *Management Measures for Raw Fuel and Materials* to ensure law-based supply chain management.

The Company fully implemented an integrated control model for the interested parties, and guided long-term partners in strengthening their safety management systems across nine aspects, including management standards, organizational structure, and safety training. It also implemented an integrated management approach between the interested parties and regional units and established a long-term management mechanism.

Risk management

Risk	Risk description	Risk level	Countermeasures
Supplier performance risk	Suppliers may cause delivery delays due to insufficient production capacity or poor production scheduling, potentially affecting product manufacturing and the project timelines of downstream customers.	Medium risk	<ul style="list-style-type: none">• The Company identified the reasons for the delayed delivery and activated the emergency plan.• The Company strengthened the qualification review and regular assessment and evaluation for suppliers, managed the gray and black lists as per strict standards, and ensured the supply chain stability.• The Company monitored the dynamics of suppliers in real time, detecting and addressing potential risks promptly, and ensuring the supply chain efficiency.
Quality risk of purchased materials	The quality of products may be compromised when the quality indicators, including composition and performance, of the purchased materials do not align with the requirements of enterprise standards.	Medium risk	<ul style="list-style-type: none">• The Company strengthened the assessment and process control of suppliers. It also signed supply contracts with all its suppliers and required the suppliers to provide materials in strict accordance with company standards. Besides, it conducted strict quality inspections and established traceability mechanisms, to ensure up-to-standard material quality.

Strategies and indicators

Responsible procurement

Transparent procurement

- With the goals of "transparency, cost reduction, safety, and high efficiency", the Company implemented the open procurement policy and established stable procurement channels with high-quality suppliers that had reliable supply capacities and comprehensive quality assurance.
- The Company required suppliers to sign the *Agreement on Honest Cooperation*, firmly opposing corruption, monopolies, and other unfair competition practices. It also imposed strict penalties for misconducts to ensure that suppliers' law-based operation.

Smart procurement

- The Company established a supplier collaboration platform and an integrated smart operation management system, achieving full-process digitalization from registration and contract signing to electronic order coordination and invoice reimbursement. Procurement and bidding processes were completed online, which significantly improved the procurement efficiency.
- The Company improved the Delin Industrial Products Platform, transforming it into an open, transparent, well-regulated, and efficient Internet-based procurement platform that ensured cost reduction and operational efficiency.

Green procurement

- The Company procured low-sulfur and eco-friendly raw materials.
- The Company prioritized energy-efficient and emission-reducing equipment, spare parts, and materials, and actively promoted new energy-saving technologies, such as LED lighting.
- The Company required suppliers to deliver goods by using new energy vehicles or vehicles meeting emission standards of Stage V or above, so as to reduce pollutant emissions during transportation

Supplier management



In 2024

The Company had a total of

2,309

suppliers

Its local procurement ratio reached

41.71%

Its total cost of equipment and material procurement decreased by

13.3%

compared to that in 2023

Its total cost of crude fuel procurement decreased by

12.9%

compared to that in 2023

It had

5

suppliers engaging in environmental impact assessment

Its new suppliers screened based on environmental standards accounted for

1.2%

of the total

Rural revitalization

Governance

Angang Steel meticulously delved into and effectively implemented the important instructions of General Secretary Xi Jinping on the work concerning agriculture, rural areas and farmers delivered at the Central Rural Work Conference. Additionally, it earnestly followed the General Secretary's instructions on aligning efforts to consolidate and expand the achievements in poverty alleviation with efforts to promote rural revitalization. It learned the novel policies and requirements of the CPC Central Committee and the State Council concerning paired assistance and rural revitalization initiatives, considered the paired assistance as a momentous political mission, and propelled the high-quality progression of paired assistance work.

The Company established and refined a multi-layered system, where the Party Committee provided unified leadership, the principal leaders assumed accountability, the Paired Assistance General Office orchestrated overall progress, and the dispatched cadres executed tasks on the front line. It also established a Leading Group of Paired Assistance, with the Chairman and General Manager serving as the group leaders. Moreover, the Office for Leading Group of Paired Assistance was established and tasked with handling the specific work of paired assistance, so as to intensify the fulfillment of responsibilities and guarantee the effective implementation and substantial outcomes.

Risk management

Risk	Risk description	Risk level	Countermeasures
Sustain-ability risk of as-sistance projects	Some assistance projects may be short of long-term planning and unremitting financial & technical support, which would undermine the sustainability of these projects.	General risk	<ul style="list-style-type: none">The Company carried out an all-rounded feasibility analysis and long-term planning for the assistance projects, specified sustainable development goals and paths of these projects, and established and improved a well-structured project management regime. These measures ensured the sustained and steady develop-ment of these projects.
Talent loss risk	During the rural revitalization drive, locally nurtured talents might expe-rience outflow due to factors such as employment prospects and incomes, which may affect the continuity of as-sistance projects and the consolidation of results.	General risk	<ul style="list-style-type: none">The Company augmented its endeavors in the cultiva-tion of local talents. By means of training, education, and technical guidance, it elevated the professional skills and holistic qualities of local talents. Simultane-ously, a rational incentive regime was established to fur-nish local talents with more employment opportunities and wider development scope, thereby retaining them.

Strategies and indicators

Angang Steel consistently maintained its support efforts, committing real resources and sincere dedication to rural revitali-zation with full efforts. In 2024, the Company allocated 16.5 million yuan as non-repayable assistance funds. The case of its contribution to the rural revitalization of Taxkorgan Tajik Autonomous County was included in the *Chinese Stories 2024 of Fulfilling Corporate Social Responsibility*. The assistance officials stationed in Taxkorgan Tajik Autonomous County delivered a keynote speech at the 7th China International Import Expo, showcasing Ansteel's outstanding practices in fulfilling its corpo-rate responsibilities to the whole world.



- The Company invested 640,000 yuan to establish an agricultural technology demonstration base for modern greenhouses in Taxkorgan Tajik Autonomous County and allocated 500,000 yuan to assist the county in improving the infrastructure of the modern industrial park for agricultural processing, strengthening the foundation of local industries.
- The Company invested 4.11 million yuan to expand the specialty industries of Taxkorgan Tajik Autonomous County, and took whole-process support measures covering the raw material, production, and marketing stages to enhance the competitiveness of specialty agricultural products and increase the recognition of the local tourism industry.
- The Company invested 1.02 million yuan to execute the tagetes erecta industry upgrade project in Taxkorgan Tajik Autonomous County, developing the courtyard economy among resettled immigrants and augmenting the income of local inhabitants by nearly 1.2 million yuan.
- The Company attracted new energy industry enterprises through investment promotion. The enclave industrial park of Taxkorgan Tajik Autonomous County has initially established a new energy industry chain which centers on new energy vehicles and extends to the processing and export trade of automotive parts.

- Relying on its own resources and the expertise of external specialists, Angang Steel carried out targeted training sessions with a focus on the specific needs of Taxkorgan Tajik Autonomous County, covering agricultural technology and optimized planting demonstration. It trained 86 individuals in homestay management and services, helping establish 602 rural homestays and 93 Tajik-style homestays.

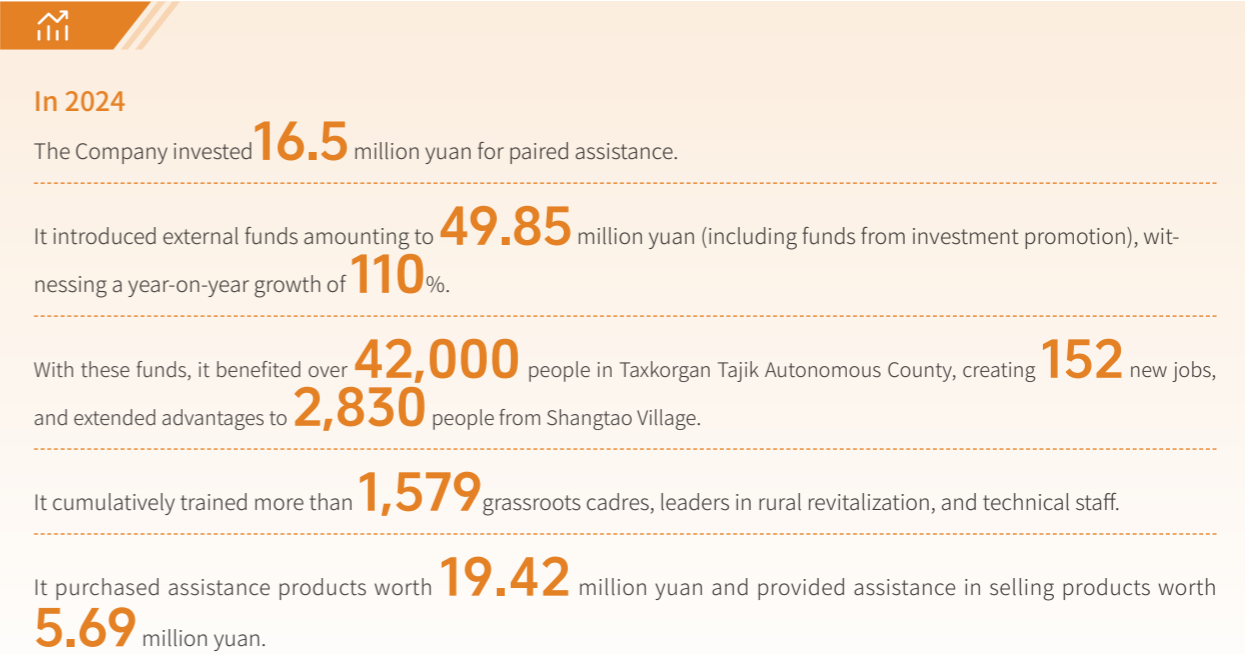


- The Company invested 5.3 million yuan in the project for enhancing the teaching hardware amenities in Taxkorgan Tajik Autonomous County, and the construction of the project for installing oxygen supply systems for urban and rural boarding primary schools and other projects for erecting ancillary facilities.
- The Company sustained the execution of the project of enriching Xinjiang with culture and organized the "Affectionate Warmth" series of solicitude and condolence activities in Taxkorgan Tajik Autonomous County. The Company helped transform the boarding primary school in Taxkorgan Tajik Autonomous County into a football-specialized school in Kashgar Prefecture and achieve a top-eight ranking in the primary school category of the "Happy Run, Passionate Youth" 2024 Kashgar Youth Football Championship.
- The Company invested 80,000 yuan to support the renovation of Abati Town Cultural Center in Taxkorgan Tajik Autonomous County and allocated 300,000 yuan for such projects as the project of building beautiful villages and the project of creating the Cultural Activity Center for livable Shangtao Village.



- The Company invested 4.05 million yuan in purchasing new energy vehicles and related supporting facilities, and implemented a county-wide green development project in Taxkorgan Tajik Autonomous County to protect the plateau ecosystem.
- The Company actively advanced the "Warm-Hearted Boiler" livelihood project and assisted in implementing rural toilet renovation activities, thus addressing the gaps in people's livelihood and improving the rural ecological environment.

- The Company conducted training on Party theories, Party spirit, and exemplary role models, with 229 participants. It developed 1 Party member among outstanding young farmers and included 19 individuals in the Party member development plan.
- The Company executed the initiative to elevate the basic facilities of Party-building strongholds and boosted the comprehensive service competencies of Party-building endeavors.



A bumper harvest of marigolds in Taxian County



Supporting the establishment of a rural-urban boarding school football team in Taxian County

◆ Protection for the beautiful city

The Company consistently kept a close eye on the implications of its development for urban progress. During its operation, it worked to manage urban wastes, mitigate pollution risks, enhance the recycling rate of reclaimed water and curtail fresh water consumption. Besides, it provided coal gas resources to guarantee the energy supply for people's livelihoods, contributing to the construction of the beautiful city and protecting the urban environment.

Consuming urban wastes

The Company constructed a "waste-free enterprise" and created an urban steel mill model. Leveraging its own furnaces and kilns, it achieved internal recycling of 8 types of hazardous wastes, including waste oil drums and spent activated carbon. It also implemented a degreasing modification for the 1,780 mm hot rolling production line and constructed a steel slag treatment facility to promote waste recycling and utilization. Moreover, it completed the construction of a desulfurization ash land-fill and a closed-type workshop at the Heiniuzhuang waste site, effectively safeguarding the soil in the vicinity of the waste site.

Increasing the reuse rate of reclaimed water

The Company implemented dynamic water usage management for users and optimized the capacity of its water treatment system. Four reclaimed water reuse systems (i.e., Advanced Treatment Phase I, Advanced Treatment Phase II, Xidagou desalination system and Beidagou desalination system), achieved full operational capacity, replacing 33 million tons of fresh water with recycled water. These systems increased the city's reclaimed water reuse rate, reduced its fresh water consumption, and ensured the efficient utilization of urban water resources.

Ensuring the heating supply for people's livelihood

The Company utilized advanced energy-saving technologies such as absorption heat pumps and Mechanical Vapor Recompression (MVR) to upgrade low-grade heat sources into high-grade heat sources. This has provided green thermal energy for the urban heating system of Anshan, reduced the coal consumption costs for heating, and advanced the transition toward coal-free residential heating in the city.

It continued to provide high-quality residual heat water for urban heating and invested a total of 39 million yuan to enhance the efficiency of residual heat utilization from the slag flushing water of blast furnaces #4, #5, #10, and #11 of the ironmaking plant. Upon implementation, the annual heating supply increased by 310,000 GJ, directly expanding the heating coverage by 620,000 m².



In 2024

The Company provided coal gas resources (converted to blast furnace gas) of

400,000 m³/h

The Company increased the heating area using waste hot water by

620,000 m²



◆ Public welfare and charity projects

With a focus on five key areas, including dedication to jobs, educational funding assistance, and community services, the Company called on young volunteers to actively engage in volunteer activities. It organized voluntary service activities (such as "Hand in Hand to Love Children" and "Promoting Lei Feng Spirit in the Society"), donation and assistance programs (like "Fulfilling Dreams with Love and Education"), as well as public welfare undertakings (such as projects of supporting rural education and assisting vulnerable groups) to strengthen the philanthropic brand of Ansteel and demonstrate its corporate social responsibility.



The "Learning from Lei Feng" Team from the Coking Plant of Angang Steel launched environmental sanitation cleaning activities in a community.



Volunteers from Angang Chemical Technology Co., Ltd. carried out voluntary service activities at the Elderly Care Service Center in Qiangan Village, Anshan City.



The Caring Team from the Technology Center of Angang Steel has been assiduously conducting the "Benevolent Aid in Education to Assist in Realizing Dreams" donation and support initiative at Lipu Primary School for over two decades.



The "Learning from Lei Feng" Team from the Coking Plant of Angang Steel launched a volunteer activity of caring for children with hearing impairments.

Indicator	2022	2023	2024
Number of volunteers in volunteer activities (persons)	12,907	9,775	9,855
Accumulated duration of volunteer service (hours)	13,307.5	11,730	20,124
Number of volunteer (persons)	3,508	3,426	3,685

◆ Outlook for 2025

The year 2025 is a crucial year marking the successful completion of the 14th Five-Year Plan and laying the groundwork for the 15th Five-Year Plan. Under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we will fully implement the guiding principles set forth at the 20th National Congress of the Communist Party of China, as well as the Second and Third Plenary Sessions of the 20th Central Committee and the Central Economic Work Conference, and thoroughly study and put into practice the important instructions delivered by General Secretary Xi Jinping during his visit to Liaoning and Bensteel Group Corporation Limited under Ansteel. With strong determination, we will faithfully execute the strategic decisions made at the third Party Congress of Ansteel and the second plenary session of its third committee to strengthen confidence, build momentum to make breakthroughs, and work collectively to usher in a new phase of high-quality development.

Committing to increasing our value and driving the long-term growth.

By continuously improving our corporate governance system and deepening the development of a dynamic enterprise, we will work to eliminate institutional and structural barriers while advancing key reform initiatives. We will strengthen the fundamental driving force for a solid foundation while accelerating the development of an innovative, market-driven enterprise. Through refined management philosophies, we will make every effort to enhance quality and efficiency, and continuously improve our profitability and development potential.

Advancing green development for a low-carbon future.

Guided by Xi Jinping thought on ecological progress, we will uphold the principle that green mountains and lucid waters are indeed mountains of gold and silver. To be specific, we will integrate the green development philosophy into every aspect of our production and operations, make the rectification of ecological and environmental issues a routine practice, and drive clean and low-carbon development by fully strengthening ultra-low emission upgrades and advancing the fight to prevent and control pollution.

Insisting on the people-oriented philosophy for a win-win future.

Guided by the principles of "dual services" and "dual improvements", we will align promoting high-quality corporate development with improving employees' quality of life to enhance the quality of work while increasing employees' sense of gains, happiness, and security. We will continue to protect our partners' rights and interests and work hand in hand with customers and upstream and downstream enterprises of the industrial chain to achieve mutual benefits and shared success. Besides, we will actively share the benefits of our development with local communities to support community building. By practicing our commitment to public welfare initiatives, we will demonstrate our corporate responsibility and create win-win outcomes for all.

◆ ESG Index

Index of *ESG Reporting Guide by The Stock Exchange of Hong Kong Limited*

Indicators Content		Page
A1 Emissions		
General Disclosure	The policies, and compliance with relevant laws and regulations that have asignificant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	37-38
A1.1	The types of emissions and respective emissions data.	37
A1.2	Total greenhouse gas emissions (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	33
A1.3	Total hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	39
A1.4	Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	39
A1.5	Description of measures to mitigate emissions and results achieved.	36-39
A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	35-39
A2 Use of Resource		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	40
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (calculated in kWh) and intensity (e.g. per unit of production volume, per facility).	42
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	43
A2.3	Description of energy use efficiency initiatives and results achieved.	40-42
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	40-43
A2.5	Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	N/A
A3 Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	44
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	44-45
A4 Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	31
A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	31
B1 Employment		
General Disclosure	The policies, and compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	48-49
B1.1	Total workforce by gender, employment type, age group and geographical region.	50
B1.2	Employee turnover rate by gender, age group and geographical region.	49
B2 Health and Safety		
General Disclosure	The policies, and compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	50
B2.1	Number and rate of work-related fatalities	51

Indicators Content		Page
B2.2	Lost days due to work injury.	51
B2.3	Describe the adopted occupational health and safety measures, as well as relevant implementation and monitoring.	50
B3 Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. Training refers to occupational training, including internal and external courses paid by the employer.	52
B3.1	The percentage of employees trained by gender and employeecategory (e.g. senior management, middle management).	52
B3.2	The average training hours completed per employee by gender and employee category.	52
B4 Labour Standard		
General Disclosure	The policies, and compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	49
B4.1	Description of measures to review employment practices to avoid child and forced labour.	49
B4.2	Description of steps taken to eliminate such practices when discovered.	49
B5 Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	64-65
B5.1	Number of suppliers by geographical region.	65
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	65
B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	64
B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	65
B6 Product Responsibility		
General Disclosure	The policies, and compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress. Description of consumer data protection and privacy policies, how they are implemented and monitored.	28; 54-57
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	56
B6.2	Number of products and service related complaints received and how they are dealt with.	57
B6.3	Description of practices relating to observing and protecting intellectual property rights.	28
B6.4	Description of quality assurance process and recall procedures.	55
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	28
B7 Anti-corruption		
General Disclosure	The policies, and compliance with relevant laws and regulations that have a significant impact on the issuer relating to the prevention of bribery, extortion, fraud and money laundering.	27-28
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	—
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	27-28
B7.3	Description of anti-corruption training provided to directors and staff.	27-28
B8 Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the community interests.	66-69
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture and sport).	66-69
B8.2	Resources contributed (e.g. money or time) to the focus area.	66-69

Index of Topics for *Preparation of a Sustainability Report* by Shenzhen Stock Exchange

Criteria	S/N	Topics	Corresponding clauses	Page number
The environment	1	Response to climate change	Articles 21 to 28	30-33
	2	Pollutant emissions	Article 30	36-38
	3	Waste treatment	Article 31	39
	4	Ecosystem and biodiversity conservation	Article 32	44-45
	5	Environmental compliance management	Article 33	34-35
	6	Energy utilization	Article 35	42
	7	Water resource utilization	Article 36	43
	8	Circular economy	Article 37	43
The society	9	Rural revitalization	Article 39	66-67
	10	Social contributions	Article 40	68-69
	11	Innovation-driven development	Article 42	58-63
	12	Technology ethics	Article 43	The Company's business does not involve scientific research or technological development in ethically sensitive areas such as life sciences or artificial intelligence.
	13	Supply chain security	Article 45	64-65
	14	Fair treatment of small and medium-sized enterprises	Article 46	The Company prohibited discriminatory clauses or delayed payments due to differences in enterprise scale. For the details regarding the building of a fair and transparent supplier management system, please refer to page 61.
	15	Product and service safety and quality	Article 47	54-57
	16	Data security and customer privacy protection	Article 48	28
	17	Employees	Article 50	48-53
	18	Due diligence	Article 52	The Company's analysis of identifying and addressing sustainable development risks is provided on pages 20-21 of this Report. The Company has not yet conducted due diligence specifically for sustainable development risks.
Sustainability-related governance	19	Communication with stakeholders	Article 53	16
	20	Anti-commercial bribery and anti-corruption	Article 55	27-28
	21	Anti-unfair competition	Article 56	27-28

Feedback Form

Dear readers,

Thank you for reading this report! We would like to listen to and adopt your opinions and suggestions about this report, for the purpose of providing an important basis for improving the quality of our ESG report.

Please put a mark of ✓ for what you have chosen.

Do you think the report has highlighted the Company's work and impacts on the economy, society and environment?

☐ Yes ☐ Not bad ☐ No

Do you think the information and indicators disclosed in this report are clear, accurate and complete?

☐ Yes ☐ Not bad ☐ No

Do you think this report is formulated with the appropriate contents and format for reading?

☐ Yes ☐ Not bad ☐ No

Open questions:

Which parts in this report are you mostly interested in?

Which information that you want to know is not included in this report?

What are your suggestions on our future release of ESG report?

Would you please tell us something about you?

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