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HANGYANG

Great Gas, Global Journey

Hangzhou Oxygen Plant Group Co., Ltd.

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Economic Performance

Operation revenue	Net profit attributable to shareholders of parent company	Basic earnings per share
RMB 13.716 billion	RMB 922 million	RMB 0.94 per share
Total assets	Weighted average return on equity	Net operating cash inflow
RMB 24.070 billion	10.50%	RMB 2.246 billion

Environmental Performance

Total GHG emissions	Compliance rate of wastewater, waste gas, and solid waste discharges	Proportion of recycled water consumption
6.8618 million tCO ₂ e	100%	98.61%
Environmental protection investment	Environmental protection tax paid	
RMB 4.9664 million	RMB 4,160.84	

Social Performance

Number of newly recruited employees	Coverage of employee training	Fatality rate per million working hours
403	100%	0%
R&D investment	Number of patent applications in the year	
RMB 457 million	89	

Governance Performance

Number of General Meetings of Shareholders held	Number of meetings of the Board of Directors held	Number of meetings of the Board of Supervisors held
3	18	16
Duration of anti-commercial bribery and anti-corruption training	Proportion of total employees who received training on anti-bribery and anti-corruption	
10,117.50 hours	100%	

Low-Carbon Development

From the perspective of product life cycles, Hangyang is committed to reducing the impact of its production, operations, and value chain on climate change. The Company actively promotes initiatives such as the development of energy-saving and environmentally friendly green products, green supply chains, energy-saving technical upgrades, the application of renewable energy, and hydrogen energy industry planning, continuously driving its green and low-carbon transformation.



Hangyang Packings was recognized as a 2024 Municipal-Level Green and Low-Carbon Factory.



Hangyang Compressor was recognized as a 2024 Green and Low-Carbon Factory of Lin'an District in Hangzhou.

Total GHG emissions **6.8618** million tCO₂e

Emissions of Scope 1
903.34 tCO₂e

Emissions of Scope 2
6.8618 million tCO₂e

Environmental protection investment RMB **4.9664** million

Discharges of wastewater, waste gas, and solid waste achieved a **100%** compliance rate with applicable environmental standards.

Proportion of recycled water consumption **98.61%**

Enhancement of Operational Fundamentals

Number of in-service employees	Number of newly hired employees	Employee satisfaction score
5,839	403	94

Employee training expenditure	Coverage of employee training	Number of employees participated in corporate wellness retreats
RMB 155 million	100%	4,827



Hangyang Hosted the "15 Years Together, Warmth Never Fades" 2024 Hangyang Culture Festival

Number of employees participated in corporate wellness retreats organized by higher-level trade unions
5 sessions
Attendance of 30 in total

Enhancing Operational Safeguards

Total number of safety training sessions	Total duration of safety training	Coverage of safety training	Achieved established workplace safety targets
3,976	1,885,724 hours	100%	

- Improved the supply chain management framework by establishing green procurement standards and systems, enhancing Hangyang's supply chain resilience, and realizing value creation across the supply chain.
- Adhering to the quality philosophy of "Everyone Creates High-quality Products, Meticulously Refining Famous Brands," with the goal of improving customer satisfaction, continuously optimizing and enhancing product and service quality

No major risks or impact events occurred within the supply chain	No major or severe product quality issues were reported.	All corporate quality management targets were fully achieved.	No product recall or withdrawal incidents occurred.
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Total rural revitalization investment in 2024 RMB **1.532** million

Strengthening the Governance Foundation

Improving Corporate Governance

Number of General Meetings of Shareholders held	Number of proposals reviewed and approved	
3	24	
Number of Board of Directors members	Number of Independent Directors	Number of meetings of Board of Directors held
9	3	18
Number of Board of Supervisors members	Number of Employee Supervisors	Number of meetings of the Board of Supervisors held
3	1	16
Number of investor relations meetings held	Number of investor visits received	Number of platform responses
13	180	58

Building a Risk Control System

Hangyang takes a holistic approach to managing potential operational and managerial risks across strategic, market, legal, financial, and operational areas. The Company is actively promoting the development of an integrated risk control system that combines legal affairs, compliance, and risk management.

Upholding Integrity and Ethical Standards

Duration of anti-commercial bribery and anti-corruption training	Proportion of total employees who received training on anti-bribery and anti-corruption
10,117.50 hours	100%

- Hangyang strictly complies with relevant national regulations in filing for concentration of undertakings. To date, the Company has completed two concentration filing projects.

2024

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

HANGZHOU OXYGEN PLANT GROUP CO., LTD.



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Company Profile

Hangzhou Oxygen Plant Group Co., Ltd. was established in 1950 and went public in 2010 (SZ.002430). It is a world-class supplier of air separation units and cryogenic petrochemical equipment, as well as a pioneer and leader in the Chinese gas industry. Our core businesses include gases, engineering and equipment, and high-end manufacturing, while we are also actively expanding into areas such as energy-saving and storage, hydrogen energy, and CCUS. We aim to provide the world with green equipment, gas products, and sustainable development solutions.

Hangyang has been honored with numerous national accolades, including the First Prize of the State Science and Technology Progress Award, nomination of the China Quality Award, titles of National Champion Demonstration Enterprise for Manufacturing, the National Demonstration Enterprise for Service-Oriented Manufacturing, and the Leading Demonstration Enterprise in Building a World-Class Professional Business. As a recognized National Safety Culture Demonstration Enterprise and a National Green Factory, Hangyang continues to lead the development of the gas industry in China.

Sustainable Development Management

Hangyang adopts "SINCERE" as its ESG strategic guideline. Through the implementation of the "Sincere Hangyang" initiative, the Company aims to promote "Shared Progress and Collective Achievement," accelerating the realization of its long-term vision of becoming a world-class enterprise in the gas industry.

SINCERE

Sincere Hangyang, Shared Progress and Collective Achievement



Hangyang received
the Second CRHC Cup · ESG Golden Bull Award for Top 20 Science and Technology Leading Enterprises

Hangyang received
the 5th ESG 'Zhiyuan Award' for Pioneer in Social Responsibility in 2024

Hangyang was selected as
one of the "2024 100 ESG Exemplary Cases for Global Zhejiang Business"

2024 Milestones



A New Venture Empowered with Efficiency and Purpose

Insightful Strategies Lead

Steady Progress Toward a World-Class Enterprise in the Gas Industry

Comprehensive Expansion of the Gas Business

- Hangyang established the joint venture Dalian Xizhongdao Hangyang Gas Co., Ltd., filling a regional gap in Liaoning Province.
- It also founded Qingdao Hangyang Tongda Electronic Special Gas Co., Ltd., offering comprehensive solutions for the supply, distribution, and maintenance of high-purity electronic gases.
- By structuring its gas business around both regional divisions and industry-specific services, Hangyang supports energy conservation, carbon reduction, and sustainable development in industries such as steel, non-ferrous metals, and food processing—driving the Company's second growth curve.



Gas company

Steady Progress in Equipment and Engineering

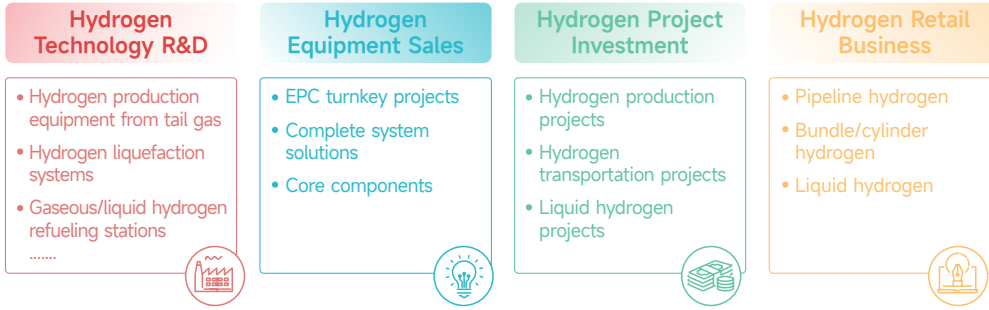
The successful commissioning of six 110,000 Nm³/h ASUs for Baofeng Energy in Inner Mongolia marked the largest single-scale ASU island built domestically to date. The project adopted Hangyang's independently developed high-pressure plate-fin heat exchangers, featuring high localization rates and technical maturity. "A Supported Sliding Radial-Flow Purification Device" was recognized as the world's first of its kind.



Baofeng project

Forward-Looking Hydrogen Energy Strategy

- Hangyang established a dedicated Hydrogen Energy Business Unit to integrate the Company's expertise in process engineering and the strengths of its manufacturing subsidiaries, aiming to build a full hydrogen energy industry chain covering production, transmission, storage, refueling, and application.
- The Company engages in R&D, equipment and system sales, project investment, construction and operation, and the retail of hydrogen and liquid hydrogen.



Management Reform

New Quality Productive Forces Lead the Path Toward Operational Excellence

Hangyang uses its pursuit of "Operational Excellence" as a catalyst to adopt and integrate world-class management philosophies and tools. By blending advanced management models with state-owned enterprise reform practices, the Company aims to improve development quality and accelerate its journey toward becoming a world-class enterprise.



Strategy-Oriented Organizational Restructuring

Hangyang unveiled a new organizational structure, establishing three major business divisions—Gas, Engineering & Equipment, and High-end Equipment—along with five Business Units (Bus). The implementation of a division-based system and project-based management marked a milestone in organizational reform, effectively reducing interdepartmental communication barriers and enhancing operational efficiency.

Business-Centered Process Optimization

Gas Investment Business
Gas investment and construction → Gas operations → Sales of gas and liquid products

Engineering & Equipment Business
Engineering and equipment project sales → Engineering and equipment project implementation

Project-Based Approach to Enhancing Quality and Efficiency

Hangyang has established a pilot team for project-based management. The project manager is responsible for end-to-end management across the entire project lifecycle and assumes primary accountability for project quality, cost, and schedule.

Digital Technology Fuels Value Creation

With organizational support from the Digital Transformation Leading Group, the Company has optimized its top-level digital architecture and is steadily advancing its digital transformation efforts. Digital technologies are expected to play a pivotal role in enhancing value across product and service delivery, as well as operational and management processes.

Joint Value Creation

Building the "Innovative Circle"

As a "chain leader" of the air separation industrial chain, Hangyang facilitates the creation of an innovation ecosystem through technological breakthroughs and innovation incubation. It has made significant progress in domestic substitution of key equipment and the incubation of green and innovative technologies, thereby enhancing the independence and high-quality development of the entire industrial chain.



Jiangyang independently developed a liquid helium tank to support the creation of a self-reliant and controllable helium supply chain.

The first key equipment manufacturing base for liquid hydrogen in Zhejiang Province officially commenced construction.

The Shanxi Province "Hydrogen-Electricity-Gas" Integrated Energy Island Project was successfully commissioned

Expanding the "Collaboration Circle"

- Hangyang has established joint R&D institutions including the Joint Specialty Gases Research Center, the Intelligent Air Separation Joint Research Center, the Liquid Hydrogen Equipment Joint Laboratory, facilitating the integration of industry, academia, and research.
- Hangyang signed strategic cooperation agreements with 12 enterprises and institutions, including Hikvision and Siemens (China), to promote cross-industry collaborative development.
- Hangyang deepened its global expansion by winning the bid for a 50,000 Nm³/h air separation unit project in Mexico, which, upon completion, will become the largest ASU ever exported from China to the Mexican market.



Establishing the "Service Circle"

- As a national demonstration enterprise for service-oriented manufacturing, Hangyang is expanding its presence in the field of industrial gas operation services, gradually shifting from a product supplier to an integrated provider of gas solutions.
- Hangyang established a technical service company to provide customers with professional consulting and solution support in air separation technology, energy-saving and efficiency optimization, capacity expansion and performance improvement retrofitting, intelligent upgrades, and entrusted operation services.
- DIOC's remote O&M capabilities can provide 24/7 managed services to end users, enabling remote monitoring, diagnostics, control, maintenance, and optimization for hundreds of large-scale air separation units simultaneously.

