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# 2023 YINGDE GASES

## Environmental, Social and Governance (ESG) Report



# Reporting Frameworks: Disclosure Standard and Transparency

## Report Introduction

Based on the principles of objectivity, fairness, transparency, and comprehensiveness, Yingde Gases discloses to our shareholders and stakeholders Yingde Gases' sustainable development practices from January 1, 2023 to December 31, 2023 in three dimensions of environmental, social, and corporate governance. In order to enhance the completeness of the report and to reflect the changing trends, this report also provides relevant data from 2020–2022 as much as possible for the reference of all parties.

## Report Reference

This report refers to the guidelines in the “IFRS Sustainability Disclosure Standards” issued by the International Sustainability Standards Board (ISSB).

- Refers to “IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information” and “IFRS S2 Climate-related Disclosures”;
- Refers to “The Ten Principles of the UN Global Compact” and “the United Nations 2030 Sustainable Development Goals (SDGs)”;
- Refers to certain materiality topics from “Sustainable Accounting Standard Board” (SASB) standards.

## Data Source

The non-financial information in this report is provided by the functional departments of Yingde Gases headquarters.

## Report Scoping

The environmental, social, and governance data in this report are limited to Yingde Gases' business operations in Mainland China.

## Title Description

For the convenience of readers, in this report, unless the context requires otherwise, “Yingde Gases” is referred to as “we”, “us” or “our”.

## Report Acquisition

This report is published in both Chinese and English format in print and online. The electronic version is available on the company's website “www.yingde.com”.

If there is any discrepancy, please refer to the Chinese version. If you have any questions or suggestions about Yingde Gases' ESG report, please call 021-3899-8888 and transferred to “Yingde Gases Carbon Asset Management Department”.



## Corporate Culture

### Philosophy

We believe in the potential of gases.

### Mission

Empower society through innovative and sustainable industrial gas solutions.

### Vision

We take full social responsibility, continually explore the value of gas applications, and strive to be the leading industrial gas and service provider.

### Core values

Openness: We embrace diversity.  
Respect: We treat people equally.

Progress: We are proactive learners.  
Accountability: We practice what we preach.



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# Message from the CEO



**Fang Shiwen**  
CEO of Yingde Gases

During this year, we have persisted in promoting the "LEAP" strategy. Driven by the three pillars of business, management, and capital, we have continuously upgraded our traditional advantage areas, developed emerging projects, and used deep decarbonization, green development, and overseas markets as opportunities to build differentiated strategic breakthroughs.

### We Believe in the Potential of Gases

In today's world where everyone is facing the challenge of climate change, as a responsible major country, China is pushing for a sustainable transition to a low-carbon society. With the development of sustainable energy in China, the boundaries between traditional power, metallurgy, steel, and chemical industries will be broken due to decarbonization transitions. Cross-border integration is also profoundly changing the pattern of China's basic industries. The industrial gas industry is the one that has served the industrial foundation for centuries and has been steadily developing for over 100 years since the Industrial Revolution. Now, being in this century-old industry, we are deeply experiencing unprecedented changes. The gas industry is being redefined in these integrations, and gases are unleashing new potential, becoming a bridge across borders.

In the past year of 2023, with the ups and downs of the Chinese economy, the gas industry has also experienced setbacks. During this year, we have persisted in promoting the "LEAP" strategy. Driven by the three pillars of business, management, and capital, we have continuously upgraded our traditional advantage areas, developed emerging projects, and used deep decarbonization, green development, and overseas markets as opportunities to build differentiated strategic breakthroughs.

### We Convey Green Value

Gas is the lifeblood of industry and the front end of green supply chains. We promote sustainable development through the "LEAP" strategy and strive to transmit green and low-carbon values to downstream industries. To this end, we empower China's industrial sustainable development through the construction of a "Five in One" green action plan for sustainable development.

#### Energy Efficiency Technology Improvement

In 2023, we improved energy efficiency technology, reduced carbon emissions by 145,000 tons, and recovered 7.55 million tons of condensate water.

#### Low Carbon Energy Utilization

In 2023, our entire corporation utilized 115 GWh of renewable energy. Based on the integrated green power supply system of "Green Source, Smart Grid, Load Reduction, and New Storage" in HuaiBei, the first 100% sustainable energy utilization air separation project has been constructed in the gas industry.

#### Clean Business Transformation

In December 2022, our first independently designed and manufactured 500Nm³/h water electrolysis hydrogen electrolysis cell was successfully produced at the Yingde Engineering Manufacturing Plant.

### Intelligent Management Enhancement

In 2023, Yingde Gases' "ALL IN ONE" (referred to as A1) project was launched and put into operation, utilizing digitalization to comprehensively improve the company's management and operational efficiency. We have also been continuously exploring, applying, and promoting multiple security intelligence technologies to lead efficient security risk management. Our IT department fully utilized G7 driving intelligent monitoring in the transportation of dangerous goods, with AI identifying high-risk driving behaviors and coordinating online and offline improvements.

### Green Society Empowerment

In 2023, we provided low-carbon gases solutions for the entire supply chain of sustainable battery materials, and we closely cooperated with customers in the efficient coupling operation of air separation and oxygen recovery, the development of oxygen recovery technology, and the preparation of low-energy oxygen nitrogen; We formulated an integrated industrial chain of "Steel-Coke-Chemical-Hydrogen" to empower the traditional steel industry's emission reduction actions.

### We Empower Employees and Society

In 2023, we held on to the bottom line of employee health and safety, created a healthy, inclusive, comfortable, and sustainable working environment, provided comprehensive corporate benefits, participated in more community investments and public welfare donations to fulfill our corporate social responsibility. By doing so, our enterprise is able to have more diverse and international perspectives to face the ever-changing market and embrace new opportunities.

We are also committed to the development of our company's business ethics. We established a comprehensive set of business ethics standards and training systems, and adhered to the principles of corporate governance and social justice.

Today, Yingde Gases' business has embarked on the path of internationalization! We have launched a future oriented corporate culture that embodies "Openness, Progress, Respect, and Accountability". We believe that diversity and openness are the cultural foundation for participating in the global market and are the key to achieving sustainable development. This culture will also help us achieve a "Win-Win" cooperation with all sectors of society in the path of sustainable development.



# Report Summary



**Shen Wei**

VP of Yingde Gases



Thank you for your attention and support to Yingde Gases!

This report provides a detailed record of Yingde Gases' corporate vision and environmental, social, and governance goals, as well as the efforts and achievements made in these areas over the past year. To help you better read this report and understand Yingde Gases, I will provide some background information from the following aspects.

Firstly, this is the first comprehensive ESG disclosure. Yingde Gases set up carbon reduction targets in 2021 and our general ESG management has been ongoing for four years. To more comprehensively showcase our achievements, we will provide objective and quantifiable information on climate response, carbon reduction, environmental issues, employee value, social value, and governance. We will also reveal how we take proactive actions to address the challenges of sustainable development and embrace the opportunities.

Secondly, the key issues discussed in this report have received support and assistance from stakeholders. This reflects the concerns of stakeholders such as investors, customers, suppliers, employees, and communities regarding the importance of Yingde Gases in ESG issues. We also strive to meet the information demands of all parties as much as possible. If you did not receive the information you wanted in the report, you can submit your request through the contact information provided at the end of the report.

At the same time, we also deeply recognize that the company's ESG achievements are the result of comprehensive management by the company's management and various business and functional departments. We firmly believe that sustainable development is the consensus of all employees for future development. To address risks and challenges, we will continue to work together to further enhance the company's ESG performance.

Finally, we hope that we can work together to promote the ESG performance of the gas industry. Yingde Gases is an important participant in China's gas industry. China's unique energy structure and industrial conditions require Chinese gas companies to work together to promote the sustainable development of the industry, especially in addressing the challenges of climate change.

Therefore, Yingde Gases will continue to shoulder the responsibility of sustainable development and work together with all sectors of society to create a better future!

Thank you again for downloading and reading the 2023 Yingde Gases ESG report. We welcome your comments and suggestions on our report.

# About Yingde Gases

## Company Overview

Established in October 2001, Yingde Gases is a large-scale professional gas company which is committed to the development of global Industry. Headquartered in the Pudong Free Trade Zone in Shanghai, we also set up our investment headquarter in Hong Kong and Design & Engineering Management Center in Hangzhou. With over 20 years of development, Yingde Gases has built over 160 production facilities with nearly 5,000 employees. The business footprints cover all over China and have extended to Southeast Asia, South Asia and Oceania.

Yingde Gases is currently the leading independent manufacturer of industrial gases focused on on-site gas supply, merchant, engineering & manufacturing, hydrogen energy and rare gases. We supply on-site pipeline gases, liquid gases and packaged gases including oxygen, nitrogen, argon, hydrogen and other high-quality industrial gas products, as well as syngas solutions based on hydrogen and carbon monoxide, to support the development of industries such as the metallurgy, chemical, electronics, semiconductor, photovoltaic, food product, medical care, new materials, energy and environmental protection. We continue to create value in numerous fields closely related to the national economy and strive towards fulfilling our goal of "empowering society through innovative and sustainable gas solutions".

## Business Model

Yingde Gases provides a full range of customized gas supply solutions, supplying a variety of high-quality gas products and services based on customer needs. Our business model covers: on-site gas supply, clean energy, merchant, design & engineering.

### On-site Gas Supply

High-quality oxygen, nitrogen, argon and other gas products are provided to customers with pipeline supply through the establishment of air separation units.

### Merchant

The gas products are provided in liquid or bottled gas to more than 5,000 clients, covering more than 300 cities in over 30 provinces. Customers are widely distributed in 12 major industries, including semiconductor, food and beverage, healthcare, new energy, etc., which are closely connected with national economy development.

### Design & Engineering

Yingde Gases possesses the independent design and engineering capability to provide design, manufacture, installation, commissioning, project management and consulting services for our own gas supply projects and third-party customers in various industries for air separation, cryogenic, green hydrogen and coal gasification plants.

### Clean Energy

The clean energy business primarily involves the supply of syngas (hydrogen and carbon monoxide). Other than being fully capable of fulfilling requirements of customers from various industries, we also provide high-quality solutions for comprehensive utilization and value enhancement of industrial tail gases.



# Main Products and Application Areas

O<sub>2</sub>

Metallurgy; Oil refining; Chemical; Medical; Oxygen enriched/Oxygenated Combustion; Oxidation; Biofermentation; Wastewater treatment; Aquaculture; Metal cutting; Welding; Embedding, hardening; Cleaning & melting; Keeping food fresh; Ozone sterilization; Exhaust denitrification.

N<sub>2</sub>

Food packaging, preservation; Food process blowing, edible oil bubbling deoxygenation; Intelligent nitrogen sealing systems; Airbag filling; Cryogenic reactor technology for the pharmaceutical industry; Metal cutting and welding; Semiconductor manufacturing; Laser cutting and welding; Oil recovery; Gas storage; Cleaning and lubrication; Food freezing; Beverage nitrogen drip pressurization; Heat treatment of metals; Cryogenic crushing; Tire vulcanization

Ar

Solar wafer; Stainless steel metallurgy; Laboratory research; Semiconductor manufacturing; Heat treated powder; Heat treated quenching; Heat treated aluminum fusion casting; Medical applications; Balloon filling; Welding protection.

CO<sub>2</sub>

Welding shield gas; Food freezing; Food transportation cooling; Soft drink carbonation; Grain fumigation; Animal slaughter; Flour cooling; Drinking water pH control; Dry ice cleaning; Wastewater treatment; Greenhouse agriculture; Plant growth; Pulp and paper; Air-conditioned packaging; Blowing agents

He

Metal welding and coating; Maglev trains; Deep-sea diving gas mixtures; Helium leak detection; Laser gas; Atomic reaction coolants; Heat treatment quenching.

H<sub>2</sub>

Glass surface polishing; Metal heat treatment; Petroleum & refining; Heat treatment quenching; Heat treatment annealing, brazing; Heat treatment powder metallurgy.

Kr

Semiconductor chips; Glass; Lighting.

Syngas CO+H<sub>2</sub>

Chemical industry; Petrochemicals

Xe

Aerospace industry; Lighting; Semiconductors; Glass; Electronics; Healthcare.

# Recognitions & Awards

- ☆ 2023 "Dingge Award" Enterprise of the Year for Total Data Intelligence
- ☆ 2023 China Corporate Carbon Neutrality List - Green Supply Chain Management Award
- ☆ Anyang Yingde awarded "Green Factory" by the Ministry of Industry and Information Technology of China.
- ☆ Hebei Yingde awarded "Green Factory" by the Ministry of Industry and Information Technology of China.
- ☆ Jingmen Yingde selected as Class A enterprise in the key industry performance classification of heavy pollution weather in Hubei Province.





# How we create ESG value

Philosophy ▶

We Believe in the Potential of Gases

Corporate Strategy ▶

Driven by the three pillars of business, management, and capital, we will continue to upgrade our traditional advantage areas, develop emerging projects, and take the opportunity of deep decarbonization, green development, and expanding overseas markets to build a differentiated strategic breakthrough.

Sustainable Development Actions ▶

Empowering society with innovative and sustainable gas solutions through the "Five in One" green action guided by corporate strategy

Energy Efficiency  
Technology Improvement

Low Carbon Energy  
Utilization

Clean Business  
Transformation

Intelligent Management  
Enhancement

Green Society  
Empowerment

Core Areas ▶

## Yingde Gases' Green Action

### Deep decarbonization and green development

We take on environmental responsibility by continuously managing greenhouse gases, water resources, and waste while increasing the utilization of renewable energy. Actively promote the company's deep decarbonization and green development through mature energy management and efficient sustainable R&D.

## Yingde Gases' Social Empowerment

### Putting people first, empowering employees and society

We create a diverse corporate culture of "Openness, Progress, Respect, and Accountability" through a comprehensive security system, sufficient corporate benefits, and active social investment, committed to creating value for employees, customers, and society.

## Yingde Gases' Corporate Governance

### Adhering to business ethics and improving corporate governance

We adhere to business ethics, continuously improve the company's sustainable governance and risk management system, empowering our sustainable development.

Materiality Topics & SDGs Commitments ▶

GHGs Emissions

Renewable Energy Utilization

Sustainable R&D

Energy Management

Water Resource Management

Toxic Emissions & Waste Management



Safety and Health

Diversity and Inclusion

Employee Recruitment

Employee Engagement

Employee Benefits

Community Relations



Sustainable Governance and Risk Management

Digital Intelligence Empowerment

Business Ethics

Investor Relations and Disclosure





# Yingde Gases' Green Actions

### GHGs Emissions



**Target:** Committed to reducing the company's carbon emission intensity per unit of revenue by 30% by 2030, compared to the 2020 baseline.

**Target Initiative:**

- Improve energy efficiency of air separation units (ASU).
- Enhance the syngas business operational efficiency.
- Explore a new type of syngas contract processing business model.
- Develop green hydrogen business
- Increase the uptake of renewable energy

**Achievements:**

- In 2023, the company reached 8.31t CO<sub>2</sub>/10,000RMB carbon intensity per unit of revenue, achieving a 20.2% intensity reduction compared to the 2020 baseline.
- In 2023, the company realized a 200,000 t CO<sub>2</sub> capture and utilization (CCUS) level.



### Renewable Energy Utilization



**Target:** Achieving a renewable energy utilization of 500 GWh of green electricity procurement by 2025.

**Target Initiative:**

- Develop green energy air separation unit.
- Increase the procurement of renewable energy.
- Increase renewable energy generation facilities such as photovoltaics.
- Explore low-carbon mechanisms such as green certificates.

**Achievements:**

- In 2023, the company reached 115 GWh of renewable energy utilization.
- The utilization of green electricity in 2023 increased by 21% compared to 2022 level.



### Sustainable R&D



**Target:** To promote the transformation of clean business and sustainable agricultural development through sustainable R&D such as green hydrogen and gas application technology.

**Target Initiative:**

- An annual R&D investment of no less than 200 million RMB.
- Develop and explore hydrogen energy technology.
- Utilize low-carbon technologies such as CCUS.
- Developing gas application technologies in the field of sustainable agriculture.

**Achievements:**

- In 2023, the company reached energy saving technology R&D investment of 205.78 million RMB.
- The company participated in National Key R&D Project "Common Key Technologies and Demonstration of Carbon Capture in Typical Industrial Process Combustion".



### Energy Management



**Target:** To achieve industry-leading energy efficiency level through continuous efficiency improvement.

**Target Initiative:**

- Continuous efficiency improvement process diagnosis.
- Technical transformation and optimization of inefficient equipment.

**Achievements:**

- In 2023, the company's energy consumption intensity per unit output value of the decreased by 16.7% compared to the 2020 benchmark.
- The total carbon emissions reduction reached 128,000 tons of CO<sub>2</sub> via energy efficiency improvement.



### Water Resource Management



**Target:** Continue to reduce the dependence on natural water resources, water resources recycling and utilization to reach the industry-leading level.

**Target Initiative:**

- 40% increase in air separation condensate water recovery by 2030 compared to 2020.
- Increase the amount of reclaimed water recycling, and the total utilization is expected to reach more than 20 million tons per year by 2030.
- In 2030, the utilization rate of air separation circulating water will continue to be above 98.8%.

**Achievements:**

- In 2023, the recovery volume of condensate water will reach 7.55 million tons per year, of which 0.87million tons per year will be recovered from air separation condensate water.
- In 2023, the amount of reclaimed water will be 15.96 million tons per year.
- In 2023, the average recycled water utilization rate of air separation facilities will reach 98.9%



### Toxic Emissions & Waste Management

**Target:** Continue to reduce the generation of waste, and landfill; Maintain 100% compliant disposal of hazardous waste.

**Target Initiative:**

- 30 business units achieve "zero waste to landfill".
- Continue to maintain the compliance management of hazardous waste to achieve compliant disposal.

**Achievements:**

- Keep 100% hazardous waste compliance by 2023





# Yingde Gases' Social Empowerment

Safety and Health

**Target:** By 2030, the accident rate keep remaining at the best level in the industry.

**Target Initiative:**

- The accident rate is lower than the industry average for the same period.
- Through intelligent driving monitoring and smart site construction, we will continue to explore and apply digital intelligence technology to improve safety risk management and control capabilities.

**Achievements:**

- The average lost-workdays accident rate in 2023 decreased by 57.4% compared to the 2020 baseline.
- In 2023, the accident rate of product vehicle decreased by 70.6% compared to the 2020 baseline.



Employee Recruitment

**Target:** Regard the recruitment as talent development program, to reserve the talent and intelligence support for the development of company and society.

**Target initiative:**

- The information of all vacant positions in the company is open to both internal employees and the public.
- Eliminate any discriminatory and biased language, behaviour and decisions in the recruitment process

**Achievements:**

- The percentage of full-time employees in 2023 increased by 2.0% compared to 2022.
- The percentage of company contractors in 2023 decreased by 11.1% compared to 2022



Diversity and Inclusion

**Target:** Create a diverse and inclusive workplace culture where every person or group is welcomed, respected, supported, valued, and empowered to contribute.

**Target Initiative:**

- Establish diverse and inclusive corporate values
- Provide inclusive and equitable development and promotion opportunities for employees of different ethnic, age, gender, culture and backgrounds

**Achievements:**

- In 2023, the proportion of senior female employees is 24%, and the proportion of total female employees is 18%
- In 2023, 21% of employees are under 30 years old, 71% are between 30 and 50 years old, and 8% are over 50 years old



Employee Engagement



**Target:** By fostering a diverse and equitable work environment, we strive to address and remove barriers of employee engagement.

**Target Initiative:**

- Encourage employees to voluntarily participate in survey and explore diverse employee engagement methods.
- Enhance overall employee participation through CEO Talk, employee activities, and other measures.

**Achievements:**

- The result of the company's annual employee engagement survey have improved year after year, reaching 81.9%.
- Promote two-way communication between company management and grass-roots employees to formulate improvement actions.



Employee Benefits



**Target:** To bring a high-quality life and working experience, we implemented an employee benefits system focusing on "Employee Centered" and "Employee Care" .

**Target Initiative:**

- Provide competitive programs to provide employees with health, financial and life support.
- Provide team building, birthday parties, long-term service awards and other benefits aiming to help employees to feel being respected and recognized.

**Achievements:**

- 100% FTE enjoyed group insurance, annual check-up, benefit allowance
- Build 'Employee Care Fund' to help employees or their relatives who unfortunately have critical disease
- Annual seminars are held to improve employees' health awareness
- Provide extra medical insurance to employees' children, and offer check-up discounts for employees' relatives



Community Relations




**Target:** Fulfill our corporate social responsibility, focus on community and education, and continue to contribute value to the society.

**Target initiative:**

- Actively participate in community and public welfare activities and care for the socially disadvantaged.
- Focus on education, join hands with universities and promote innovation among industries, universities, technologies and applications.

**Achievements:**

- Accumulated donations for anti-epidemic, disaster relief, poverty alleviation and other public welfare programs totaled more than 6 million yuan.
- Established a joint innovation research institute with Xi'an Jiaotong University to realize technological innovation in the gas industry.
- Established a joint laboratory with Shanghai Dianji University to promote the development of advanced manufacturing industry.
- Specialized scholarships exceeding 1.45 million yuan donated to colleges and universities.





# Yingde Gases' Corporate Governance

Sustainable Governance and Risk Management

**Target:** Continuously improve the company's sustainable governance and risk management system, empower company's sustainable development.

**Target Initiative:**

- Establishing a sustainable development governance framework.
- Continuously improving the risk control system.
- Hosting regular ESG committee meetings to supervise and make decisions on the company's ESG matters.

**Achievement:**

- Formulated various ESG goals.
- Completed the company's risk assessment in 2022 and continue to reduce company risks.
- The release of ESG report for 2023.



Digital Intelligence Empowerment

**Target:** Utilize digital technology to accelerate a deeper integration of digitalization and business, to further enhance global operational management compliance capabilities, and to help the corporation achieve overall business development strategies and goals.

**Target Initiative:**

- Consolidate system integration and connect core business links.
- Promote technological innovation, support data-driven development, and improve infrastructure layout.
- Enhance digital organizational capabilities.

**Achievement:**

- Launched A1 project based on big data, making the company's digitalization reaching a leading level in the industry.
- Established a comprehensive digital system including intelligent management, intelligent algorithms, intelligent operations, and intelligent customer service.



Business Ethics


**Target:** Strongly adhere to business ethics and compliance standards, and create a clean, transparent, and fair business ethics system.

**Target Initiative:**

- Continuously updating the anti-corruption system.
- Strengthening the training level of employees' business ethics in a timely manner.

**Achievement:**

- Published a total of 10 policies, including the "Anti-Fraud Management System" and "Anti-Corruption Compliance Policy".
- The annual business ethics training coverage rate per employee is 100%, with an average annual employee training duration of 16 hours.



Investor Relations and Disclosure


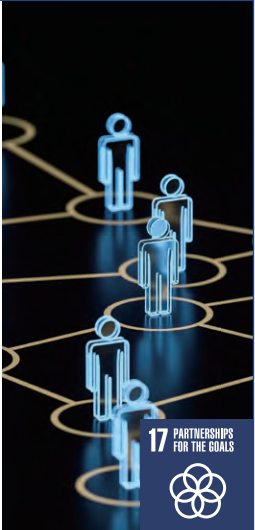
**Target:** Establish a clear, transparent, and organic communication mechanism for information exchange between the company and investors.

**Target Initiative:**

- Disclose the company's achievements and strategic information to stakeholders through regular communication meetings and diversified media releases.

**Achievement:**

- Established a comprehensive quarterly management meeting communication mechanism between the company and investors.
- The company has created diversified information disclosure channels such as official website and WeChat official account.





# Stakeholders & Materiality Topics

## Stakeholders Engagement

The sustainable development actions of Yingde Gases are the result of a joint effort with major stakeholders of the company. The stakeholders of the company include customers, suppliers, employees, shareholders, government, regulatory agencies, universities, research institutions, industry associations, communities, and the public. Our company has always attached great importance to the concerns and demands of stakeholders. We established communication mechanisms with various stakeholders, tried our best to understand their demands through various communication channels, and finally took timely actions to continuously improve and perfect ourselves on the path of sustainable development.

Stakeholder	Materiality Topics	Engagement Actions
Clients	Energy Management, GHGs Emissions, Sustainable R&D.	Face to Face Communication, Regular Meetings.
Suppliers	Energy Management, GHGs	Supplier Communication
Employees	Safety & Health, Diversity & Inclusion, Employee Recruitment, Employee Benefits.	Employee Annual Survey, Team Building Activities, Internal Training, Reading Forums.
Shareholders	GHGs Emissions, Safety & Health, Investor Relations and Disclosure.	Shareholders' Meeting, Quarterly Review Meeting
Government & Regulatory Agencies	GHGs Emissions, Water Resource Management, Toxic Emissions and Waste Management.	Annual Supervision and Inspection; Sustainable Development Report, Policy Communication Meeting
Universities & Research Institutions	Sustainable R&D, Renewable Energy Utilization, Energy Management.	University Enterprise Communication Meeting, Technical Evaluation Meeting.
Industry Associations	GHGs Emissions, Renewable Energy Utilization, Sustainable R&D, Safety & Health, Energy Management.	CIGIA, AIGA Annual Meetings.
Communities & Public	Community Relations, Toxic Emissions and Waste Management.	Company Open Day Event, Community Donation Event.

## Materiality Topics Assessment

Yingde Gases conducted an internal evaluation of various materiality topics related to the chemical industry in SASB standards, focusing on the relationships between various units in the industry and relevant parties.

Based on the identification of topics, stakeholder research, evaluation of materiality importance, and ranking of topics, Yingde Gases formed a systematic ESG management structure, which provided action guidelines for various ESG work. Thus, we have summarized a total of 16 materiality topics as follows:

Environment	Social	Governance
Climate Action	Employee Health	Corporate Governance
GHGs Emissions	Safety and Health	Sustainable Governance and Risk Management
Renewable Energy Utilization	Talent Development	Business Ethics
Sustainable R&D	Employee Recruitment	Digital Intelligence Empowerment
Energy Management	Diversity and Inclusion	Investor Relations and Disclosure
	Employee Engagement	
	Employee Benefits	
Environment Protection	Social Responsibility	
Water Resource Management	Community Relations	
Toxic Emissions & Waste Management		





# Yingde Gases' Green Action

Yingde Gases' Climate Perspective  
GHGs Emissions  
Renewable Energy Utilization  
Sustainable R&D  
Energy Management  
Water Resource Management  
Toxic Emissions & Waste Management

## Yingde Gases' Climate Perspective

To address the global climate challenge, China proposed a national strategy in 2020 to peak carbon emissions by 2030 and achieve carbon neutrality by 2060.

At the company level, as a responsible gas company, Yingde Gases actively responds to the national "Dual Carbon Goals" and proposes a business development strategy of "Deep Decarbonization and Green Development". To this end, the company set a carbon reduction target in 2021: "Committed to reducing the company's carbon emission intensity per unit of revenue by 30% by 2030, compared to the 2020 baseline." To this end, we take on environmental responsibility by continuously monitoring GHGs emissions, water resource utilization, and waste disposal, while increasing the use of renewable energy. We utilized mature energy management optimization processes and put in continuous investment in sustainable R&D to achieve proactive carbon reduction and actively promoted the implementation of the company's carbon reduction goals.

At the industry level, "gas is the lifeblood of industry", and we provide bulk gases services such as oxygen, nitrogen, argon, etc. for China's core industries such as steel, chemical, petrochemical, and electronics. Yingde Gases will strive to provide downstream customers with low-carbon and green gases products through our own carbon reduction and low-carbon transformation actions. The results of carbon emission reduction will be transmitted through the supply chain to the entire industry chain, thereby empowering downstream enterprises. Yingde Gases aims for low-carbon development, actively addresses the risks of climate transition, embraces the opportunities brought by sustainable development, and strive for the sustainable transformation of society.





GHGs Emissions

**Yingde Gases' Emission Reduction Target: Committed to reducing the company's carbon emission intensity per unit of revenue by 30% by 2030, compared to the 2020 baseline.**

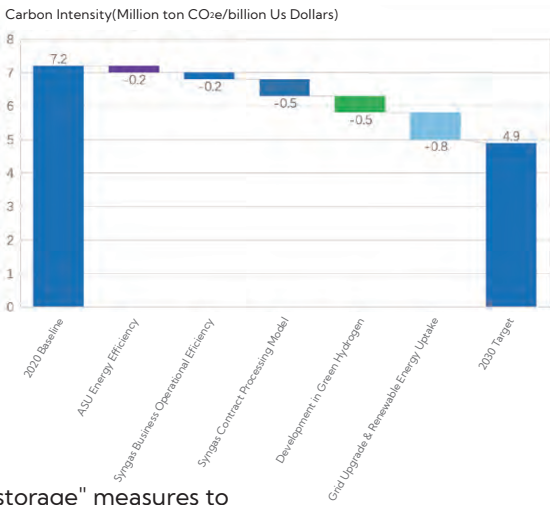
It is calculated that the company's GHGs emissions in 2023 was 19.2 million tons, and the carbon emission intensity per unit of revenue was 8.31. The company has achieved a 20.2% reduction in carbon intensity compared to the 2020 baseline, ahead of our 2025 intensity reduction target.

ITEM	2020	2021	2022	2023
CO <sub>2</sub> Absolute Emissions (t)	20,220,764	20,144,530	19,614,045	19,203,066
Scope One Emissions (t)	4,242,219.63	3,973,236.82	4,105,013.62	4,358,641.04
Scope Two Emissions (t)	16,021,127.67	16,171,293.61	15,509,031.50	14,844,425.99
Carbon Emission Intensity (t/10,000 RMB Revenue)	10.41	10.57	8.41	8.31

In order to achieve the strategic carbon emission reduction target and effectively manage the work related to carbon assets, the company has established a "Carbon Neutrality Leadership Team". This "Team" is accountable to the CEO. Besides, the Carbon Asset Management Department, acting as the management body of the "Carbon Neutrality Leadership Team", coordinates and manages the company's carbon asset-related business.

We also face certain challenges in terms of the company's emission reduction and risk. On the energy level, production is achieved through the efficient use of energy (electricity and steam). On the product level, oxygen, nitrogen, argon and other gas products are separated by the air separation unit. So, the energy consumption per unit of product is large, which is not conducive to the product decarbonization. The production of Yingde Gases is also affected by customer demand, and more than 80% of the energy supply depends on customer resupply. Thus, it is very difficult to utilize low-carbon renewable energy and reduce the carbon intensity of energy input independently. For various reasons above, we have formulated the "Yingde Gases' Greenhouse Gases Emissions Reduction Strategy".

On the basis of the "Yingde Gases' Emission Reduction Target", we have adopted the following the strategy:1. Improve energy efficiency of air separation units (ASU); 2. Enhance the syngas business operational efficiency; 3. Explore a new type of syngas contract processing business model;4. Develop green hydrogen business; 5. Increase the uptake of renewable energy. At the specific emission reduction level, we have actively purchased green equities including I-REC (International Renewable Energy Certificate) and GEC (Green Electricity Certificate), and have invested in distributed renewable energy construction like rooftop PV. At thecross-regional action level, we have also participated in regional green grid power supply such as "source-grid-load-storage" measures to increase the proportion of green electricity utilization and to promote the "steam to electricity" transformation of our air separation units to further reduce carbon emissions.



| Carbon Capture and Utilization

Jingmen Yingde Gases Co., Ltd. Carbon Capture and Utilization Project

Jingmen Yingde Gases Co., Ltd. (hereinafter referred to as "Jingmen Yingde") has achieved an annual goal of recovering 200,000 tons of high-purity CO<sub>2</sub> through carbon capture and utilization (CCUS). Jingmen Yingde has established cooperation with downstream enterprises such as Handsome Chemical Group and YUAN HAN New Energy through process transformation and innovation in synthetic gas business. This cooperation will enable Jingmen Yingde to achieve an annual recovery of over 800,000 tons of CO<sub>2</sub> emissions, which is equivalent to offsetting 174,000 passenger cars' road emissions annually.

Renewable Energy Utilization

**Yingde Gases' Renewable Energy Utilization Target: Achieving a renewable energy utilization of 500 GWh of green electricity procurement by 2025.**

As a company focused on gas supply and energy solutions, Yingde Gases has actively responded to carbon reduction requirements. Through forward-looking strategic layout, continuous technological innovation, and energy management and procurement, we have managed to optimized our energy consumption structure by an increase in renewable energy utilization, which is also a key measure for the green transformation of the company's major air separation plants. In 2023, the total amount of green electricity used by the company reached 115 GWh.

ITEM	2020	2021	2022	2023
Absolute Electricity Usage (MWh)	14,928,410	14,428,646	14,552,404	14,112,990
Total Renewable Energy Usage (MWh)	0	72,515.64	95,443.53	114,977.53
Proportion of Renewable Energy Use in total Electricity Consumption (%)	0	0.50	0.66	0.81
Year on year Change in the Proportion of Renewable Energy Usage (%)	0	100.00	30.50	24.21

At the planning level, in 2023, in order to increase the proportion of renewable energy utilization, Yingde Gases has formulated a "2025 Renewable Energy Utilization Target", aiming to increase the utilization of renewable energy to 500 GWh by 2025. At the management level, the "Procurement Management Department" of Yingde Gases has added a branch named "Energy Procurement" and this branch is responsible for the overall planning for renewable energy procurement at the headquarters level. At the same time, research will be conducted on the linkage between green electricity and carbon markets, as well as the linkage between green electricity and energy consumption indicators. Although 70% of Yingde Gases' factories are using transferred energy from our clients, thus there are certain restrictions on renewable energy procurement. However, the company will fully utilize the existing conditions of current factories to build renewable energy generation facilities such as rooftop PV, and achieve energy transformation in factory operations.



**Increase the utilization of renewable energy to 500 GWh by 2025.**



**Construction of photovoltaic and other renewable energy power generation facilities.**



I Go Green With Electricity

Yingde Gases' first 100% all-green electric operation air separation unit.

Yingde Gases has fully leveraged its own advantages and takes the lead in using green electricity throughout the operation of the air separation unit in Huaibei Mining, successfully achieving 100% green electricity coverage in the production process. Huaibei Yingde is the first fully green electric operation air separation project implemented by Yingde Gases, and also the first large-scale application of fully green electric key projects in Anhui Province. Huaibei Yingde relies on the integrated green power supply system of "green source, intelligent network, load reduction, and new storage" to fully utilize green power during the operation of the air separation unit. It has built a 65,000Nm³/h air separation unit for Huaibei Mining, matching the customer's globally leading 600,000 tons/year large-scale ethanol project. As a model of green and sustainable projects for the company, this project is expected to consume 290 million kilowatt hours of green electricity and 16,000 tons of green steam annually. After being put into operation, it can reduce carbon emissions by about 170,000 tons per year, promote local energy conservation and consumption reduction, and help to achieve the "dual carbon" goal.



100% Green Electricity Coverage in the Production Process



Matching Customers with a Globally Leading 600,000 Tons/Year Large-Scale Ethanol Project



Constructing a 65,000Nm³/H Air Separation Unit for Huaibei Mining



Annual Consumption of 290 million Kilowatt Hours of Green Electricity and 16,000 Tons of Green Steam

Zhuhai Yingde Explores I-REC Green Certificate Offset

Zhuhai Yingde Gases Co., Ltd. (hereinafter referred to as "Zhuhai Yingde") has reached a cooperation agreement with Guangdong Energy Group. (hereinafter referred to as "Guangdong Yuedian"). According to the agreement, Guangdong Yuedian will provide an additional 52,830 MWh of I-REC (International Renewable Energy Certificate) in addition to providing annual power supply to Zhuhai Yingde. Zhuhai Yingde's write-off of I-REC certificates is equivalent to offsetting approximately 30,128 tons of CO<sub>2</sub> emissions from a carbon offset perspective (2022 Chinese grid average emission factor: 0.5703tCO<sub>2</sub>/MWh), achieving the company's operational emissions reduction.



Offsetting Approximately 30,128 Tons of CO<sub>2</sub> Emissions



Sustainable R&D

Yingde's Sustainable R&D Target: To promote the transformation of clean business and sustainable agricultural development through sustainable R&D such as green hydrogen and gas application technology.

In 2023, Yingde Gases gained achievements in COG hydrogen recovery, hydrogen utilization, and sustainable application technology research and development.

ITEM	2020	2021	2022	2023
Investment in Energy-Saving Technology (10,000 RMB)	–	28,046.52	21,965.74	20,578.24
Proportion of Energy-Saving Technology Investment to Total Technology Investment (%)	–	60	51	46
Low Carbon Product R&D Investment (10,000 RMB)	–	151.23	273.11	140.91

In order to promote the company's sustainable R&D, Yingde Gases has established the "Application and Innovation Research Institute" to coordinate the company's R&D in the fields of gas application technology, low-carbon technology application, and non-cryogenic gas separation, etc., in order to cope with the future development trend of low carbon in the gas industry and to enhance the technological capability of coping with carbon neutral.

I Hydrogen Technology R&D

Hydrogen production through water electrolysis: The 500Nm³/h electrolytic cell was officially put into operation in December 2022, realizing industrialization of the hydrogen production system of water electrolysis.

The first independently developed and manufactured 500Nm³/h water electrolysis hydrogen electrolysis cell by Yingde Gases was successfully produced at Yingde Engineering Manufacturing Plant. From R&D, design, supply chain to production, manufacturing, and project management, we have achieved a breakthrough in the company's water electrolysis hydrogen production business from scratch. Based on this, Yingde Gases has integrated its water electrolysis hydrogen production business into its strategic realm, aiming to become a pioneer and leader in the industry.





| Carbon Capture (CCS) R&D

National Key R&D Project "Common Key Technologies and Demonstration of Carbon Capture in Typical Industrial Process Combustion"

Yingde Gases, as one of the major research and development unit, has participated in the National Key Research and Development Program funded project (No. 2022YFE0206600) "Common Key Technologies and Demonstration of Carbon Capture in Typical Industrial Process Combustion". This project addresses the urgent need for deep carbon reduction in key industries such as industrial boilers, building materials, and non-ferrous metals. It is a key technology for solving industrial process carbon capture (CCS) and carbon reduction, and it is also a focused topic in the development of low-carbon technologies internationally.

| Sustainable Gas Application Technology R&D

Yingde Gases has established the "Application & Innovation Institute" to continuously explore the potential of gases, with market and customer demand as the core driving force for R&D. The institute deeply integrates cross-disciplinary technologies and gas applications to build innovative products, quickly penetrating gas solutions into traditional industries. In the fields of food preservation and aquaculture, we have launched Liquid Nitrogen Freezing Solutions and Aquaculture Solution, empowering the sustainable transformation of Chinese agriculture.



Energy Management

**Yingde Gases' Energy Management Target:** To achieve industry-leading energy efficiency level through continuous efficiency improvement.

Energy management and energy efficiency improvement are the core of long-term sustainable development, reducing carbon emissions, and enhancing company efficiency for our company. Our "Efficiency Improvement Department" and "Operation Technology Department" are responsible for top-down management of energy management throughout the year.

The investment in technological transformation funds will not directly feedback to the factory's revenue level, but it has significant efficiency improvement benefits for optimizing energy use and reducing carbon emissions. The company conducts P&ID diagnosis, KPI analysis, problem identification, and final technical transformation special actions. Over the years, Yingde Gases has mastered a mature energy efficiency improvement process. From a bottom-up perspective, the company has implemented a CI efficiency improvement system for all employees, through which they can provide a series of suggestions to the company headquarters on energy management, efficiency improvement, technological improvement, and more, truly achieving full staff management for energy efficiency improvement.

ITEM	2020	2021	2022	2023
Total Energy Consumption (GJ)	167,241,079	153,968,541	157,291,447	157,699,208
Percentage of Grid Power Supply (%)	100	100	100	100
Total CO <sub>2</sub> Emissions Savings from Energy Efficiency Improvement (t)	-	-	161,698	128,474
Total Technological Transformation Investment (10,000 RMB)	3,106	5,012	6,213	8,800

| Efficiency Improvement

Replacing the Heat Exchanger Core of Yingkou Yingde Phase II Air Compressor to Improve Energy Efficiency

Yingkou Yingde has improved heat exchange efficiency and significantly reduced heat exchanger resistance by replacing more efficient heat exchangers, resulting in a significant decrease in device energy consumption. Ultimately, the factory achieved an annual energy saving of 11.42 GWh and an annual carbon reduction of 9,189 tCO<sub>2</sub>.

Energy Efficiency Improvement of Chizhou Phase II APC Project

In 2023, Chizhou Yingde promoted the development of factory intelligence by implementing APC. The improvement of intelligence has reduced the workload of operators, and the previously complex variable load operations can now be completed with just one click of setting. Thus, this factory reduced the risk factors in manual operation and the fluctuations in operating conditions caused by operational errors, improved the stability of the air separation system, optimized the edge jamming, increased the extraction rate of oxygen and argon, and reduced the overall air separation unit consumption. Ultimately Chizhou Yingde achieved an annual carbon reduction of 1,500 t CO<sub>2</sub>.

Water Resource Management

**Yingde Gases' Water Target:** continue to reduce the dependence on natural water resources, water resources recovery and utilization to reach the industry-leading level.

The company adheres to the basic policy of conserving resources, attaches great importance to water-saving management, and actively promotes the development of energy-saving work. The company's operation technical support center attaches importance to water-saving innovation and transformation, and actively explores water-saving and emission-reduction ways to achieve sustainable utilization of water resources through the water-saving strategy centered on condensate recycling, reclaimed water reuse and improvement of circulating water rate.



ITEM	2020	2021	2022	2023
Total Water Use (10,000 Tons)	-	-	4,474.43	4,493.02
Total Amount Of Reclaimed Water (10,000 Tons)	-	-	1,827.56	1,904.55
Condensate Water Recovery (10,000 Tons)	-	-	657.05	755.28
Asu Condensate Recovery Amount (Tons)	-	-	85.66	87.01
Asu Circulating Water Rate	-	-	98.81	98.93

The company takes the following steps to reduce its dependence on natural water sources:

| Water Management in the Facilities

Condensate Water Recovery

In the process, the condensate generated during the cooling of the air after compression is usually discharged directly. The quality of the condensate is close to pure water, and the water quality is very good. As The fruit can be recycled and used as a make-up for cooling water, which can not only reduce the amount of wastewater discharge, but also improve the quality of cooling water. By implementing condensate Recycling and energy-saving transformation can effectively improve energy efficiency, which is of great significance to reduce the pressure of energy demand and environmental pressure in China.

Reclaimed Water Recycling

The air separation business actively seeks to recycle reclaimed water in the surrounding area, reduce the demand for fresh water resources, reduce sewage discharge, and reduce the impact on natural water bodies Contaminate. For the clean energy business, according to the principle of "cleaning and diversion", it will be classified for recycling and reuse; When the water quality can meet the requirements of the production process, it can be straight When the water quality cannot meet the production requirements, it can be reused after treatment. Reuse after treatment – all kinds of sewage that are not suitable for string use, after treatment It becomes usable for water reuse.

Water Recycling Rate

In recent years, the company has continuously increased investment and gradually implemented the transformation of the company's water pipe network, adopting step-by-step recycling, point-by-point recycling, and itemized recycling. The water used in the device is recycled, and the on-site inspection is done at the same time to effectively prevent the occurrence of running, rising, dripping and leaking. Whether it is air separation business or clearing in the clean energy business, the recycling water rate is above 98%, and the target value of 94% water repetition rate in the petrochemical industry in 2025 has been achieved ahead of schedule.

Toxic Emissions and Waste Management

**Yingde Gases' Waste Management Target: continue to reduce the generation and landfill of hazardous waste; Maintain 100% compliant disposal of hazardous waste on an ongoing basis.**

The company's main wastes include: chemicals, wastes containing metals, and gas cylinders that have reached the end of their useful life 100% compliance will have a huge negative impact on the environment, people's lives, and corporate image. Therefore, Yingde Gases follows the principle of "green low-carbon, energy-saving and consumption-reducing principle, promote cleaner production, strictly implement environmental protection countermeasures and measures, and promote industrial solid waste generating plants to pass process reform We will continue to promote the source reduction and resource utilization of solid waste, minimize the amount of landfill, and affect the environment of solid waste.The noise is kept to a minimum.

ITEM	2020	2021	2022	2023
Hazardous Waste(Ton):	-	-	417.30	690.99

Our work is driven by a commitment to sustainability, environmental regulations and higher standards of environmental performance. For the production of hazardous and non-hazardous waste, we have taken the following measures:

- Strengthen staff training to raise their awareness of environmental protection to conserve resources;
- Through continuous efforts to reduce waste generation and adopt circular processes wherever possible;
- Adopt environmentally friendly methods to dispose of unavoidable waste in order to comply with local laws and regulations;
- In accordance with national laws and regulations, the implementation of waste classification storage and treatment.

| ISO Integrated Certification

Yingde Gases has been implementing the quality management system GB/T19001-2016/ISO9001:2015, the occupational health and safety management system GB/T45001- 2022/ISO45001:2018, and the environmental management system GB/T24001-2016/ISO14001:2015. The three systems are integrated management, and 100% of the facilities that meet the certification conditions are certified, and the new facilities are also actively carrying out certification work when the relevant conditions are met. At the same time, some facilities are also based on the facts and actively carry out the certification of energy system and food safety system.



| Clean and Green Production

Anyang Zhongying Fertilizer Co., Ltd., a subsidiary of Yingde Gases, was rated as the first batch of environmental protection A-level enterprises of coal-to-nitrogen fertilizer in Henan Province. The company's cleaner production audit belongs to the domestic advanced level, and has won the national green factory certification, the honorary title of "National Water Efficiency Leader" in 2022 and "Energy Efficiency Leader" in 2023. Jingmen Yingde was selected into the list of A-level enterprises in key industries with heavy pollution weather. Yingde Engineering, Hebei Yingde and Jiangsu Yingde have obtained green factory certification in Huzhou City, Hebei Province and Jiangsu Province respectively. In the future, the company plans to participate in the construction of clean/green factories.







# Yingde Gases' Social Empowerment

Yingde Gases' Social Perspective

- Safety and Health
- Employee Recruitment
- Diversity and Inclusion
- Employee Engagement
- Employee Benefits
- Community Relations

## Yingde Gases' Social Perspective

Employees are the most important asset of a company. The essences of the profitability and operation of a company are also aimed at empowering its internal employees and the external society. In 2023, we introduced a future oriented corporate culture that emphasizes "Openness, Progress, Respect, and Accountability".

We believe that a diverse and open corporate environment will undoubtedly stimulate more creativity. We believe that employees are the driving force behind a company's innovation and creativity. Multiculturalism is the cornerstone of innovation, and only in the context of multiculturalism can companies generate a continuous stream of innovative driving forces. In order to maximize employees value, enterprises should adhere to the bottom line in terms of employee safety and health, create a healthy, inclusive, comfortable, and sustainable working environment, provide comprehensive corporate benefits, and actively participate in social activities to fulfill the company's values.

Only by achieving these, enterprises can face the ever-changing market and embrace new opportunities with a more international perspective, and contribute more social value while creating economic value.





# Safety and Health

**Yingde Gases' Safety and Health Target: By 2030, the accident rate remains at the industry's excellent level.**

**Safety Performance**

Combined with the enterprise's own safety level and stage, the company carries out various activities to build an open safety culture guided by the apparent leadership style and full participation.

The accident rate of personnel lost working days and the accident rate of product vehicles of Yingde Gases show a downward trend year by year, and the accident rate in 2023 has reached a new low in nearly 6 years.

ITEM	2020	2021	2022	2023
Product Vehicle Accident Rate (per million km accident rate)	0.68	0.39	0.62	0.29
Lost Time Injury Rate (lost time injuries and illnesses per million hours)	0.17	0.23	0.13	0.05

Safety risk is the company's highest risk management priority. Yingde Gases always regards the occupational health and safety of employees as the first element. We believe that all accidents can be prevented, and we will persevere in our efforts to improve the strategy of system construction, risk identification and control, and safety culture To continuously enhance organizational resilience and protect the safety of our employees, customers, contractors and communities.

**Safety Principle**

In accordance with the national policy of "safety first, prevention crucial, comprehensive management" and the principle of "who is in charge, who is responsible", combined with the safety management experience of Yingde Gases for many years. In 2020, the six safety concepts of Yingde Gases were re-released:

- All accidents and injuries are preventable;
- Safety is a prerequisite for work and employment;
- Safety performance is the responsibility of the person in charge;
- Our employees and contractors take ownership and obligation for their own safety and that of others;
- Safety & Environment incidents reporting and root cause analysis and sharing are effective means of continuous improvement;
- Commitment to safety and sustained efforts will yield results.

**Safety Technical Standard**

Yindge Gases actively participates in the preparation of national, industrial, local and group safety technical standards, such as: GB/TXXX "Requirements for Use of Stationary vacuum insulated Cryogenic Containers", GB/TXXX "Requirements for Use of mobile vacuum insulated Cryogenic Containers", AQ-XXX "Technical Specifications for Safe Operation of cryogenic air separation Devices", DB31/T1282-2021 "Safety Technical Conditions for Hydrogen Filling of Vehicle Gas Cylinders", T/CCGA 90001 "Fire Hazards in Oxygen and oxygen-rich atmospheres", T/CCGA 10004 "Technical Code for Safe Operation of perlite sand", T/CCGA 90002 "Hazards in anoxic Atmospheres", T/CCGA 90003 "Classification of Mixed Gases: Oxidation classification". To make contributions to better promote social safety technology and management.

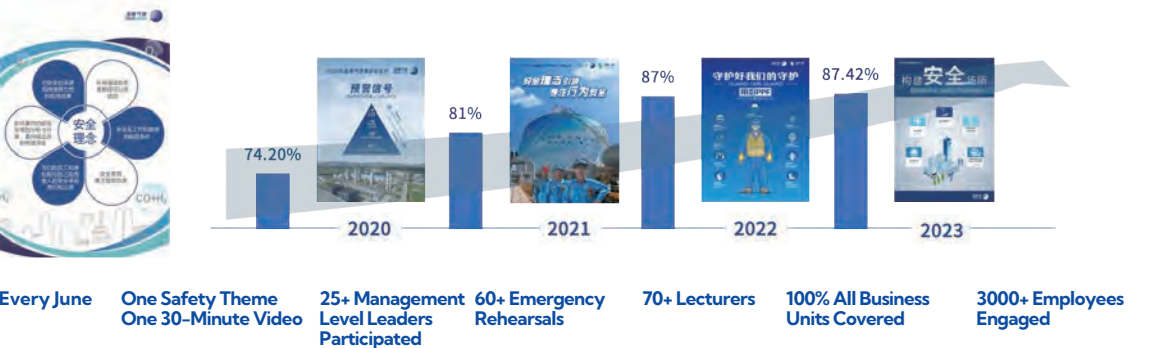
**Digitization & Intelligent Safety Management**

Continue to explore, apply and promote a number of safety data intelligence technologies to lead efficient safety risk management. In the transportation of dangerous goods, "G7" driving intelligent monitoring is fully used, AI identifies high-risk behaviors in driving, and coordinated improvement online and offline; In the construction management of construction projects, "Smart Construction Site" is used, AI identifies a series of risks such as safety belts, safety hats, hoisting area control, and all-weather construction site control; In the chemical process safety analysis, HAZOP analysis cloud platform was used to achieve analysis digitization. Similar experience was accumulated, and a group of internal HAZOP chairmen were cultivated to fully cover all process modules and continuously improve the intrinsic safety of the process. In the operation process safety control, innovative dynamic risk management and control, real-time monitoring of the reliability of the independent protection layer of process safety; In the accumulation and learning of security experience database, we use the advantages of our own database to build 8 industry-related safety databases: Domestic and foreign safety technical standard database, industry accident case database, QHSE compliance database, safety training material database, JSA/ risk classification database, safety inspection standard database, SDS database, HAZOP analysis module database, etc., lay a solid foundation for future AI empowered employees.

**Behavioral Safety Promotion**

Every year, whole group facilities will hold a safety month theme activities covering all unites the whole group, according to the stage of the company's own safety culture and safety management Basic basic promotion needs, set different security safety themes, use theme videos to explain the practice of security safety concepts in each business unit, the group's senior leadership, all staff Extremely involved, remove risk barriers, constantly improve organizational behavior safety culture, and build organizational resilience.

**Themed Events Led to Continued Improvement of Safety Scores in Employee Engagement Survey**



# Employee Recruitment

**Yingde Gases' Employee Recruitment Target: Regard the recruitment as talent development program, to reserve the talent and intelligence support the development of company and society.**

For the recruitment of talents, we adhere to the principles of fairness and transparency, equal competition, and merit-based recruitment. In the recruitment activities, we always fully respect different types of talents, and avoid discriminatory issues caused by religious beliefs, native places, gender and other factors, as well as biased recruitment practices and hiring decisions. We always take knowledge, ability, achievement and character as the basis for hiring decisions.

Every year, talents from various industries, different enterprise nature, different age stages and different educational backgrounds join the company.

In the future, the company will continue to optimize the talent competency and talent evaluation system to reduce the inaccuracy of the traditional talent ability evaluation caused by the excessive weight of the recruiter's personal will, and further strengthen the fairness and justice of talent recruitment.



ITEM	2020	2021	2022	2023
Full Time Employee Change Due to Acquisition (person)	0	1,051	0	76
New Hire (person)	0	0	191	22
Total Employee (person)	3,656	4,670	4,861	4,959
Full Time Employee (person)	3,557	4,542	4,772	4,854
Contractor Employee (person)	75	113	72	64
Retirement Engagement (person)	24	15	17	41

Integrity and Transparency in Talent Recruitment

We have established a variety of recruitment channels to attract talents, and when there is an opening internally, we will publish information on internal and external websites.

Through external channels, we will work on job posting, application screening, interview and offering. We have all hiring process be online through system, which assure the whole recruitment flow is open and transparent.



Diversity and Inclusion

**Target of Diversity and inclusion: Create a diverse and inclusive workplace culture where every person or group is welcomed, respected, supported, valued, and empowered to contribute fully.**

Yingde Gases is a company in chemical industry, but our employees come from various industries such as Manufacturing, New Energy, IT, and Finance. We fully recognize the importance of diversity, not only reflected in objective factors such as employees' age structure, gender structure, educational background and working area, but also in individual factors such as their working methods, personal abilities and ways of thinking. At the same time, we are even actively addressing such problem as "compared with other industries, the proportion of women workers is low ", and "how to better promote the diversification of the age and educational structure of the company's employees, and better do a good job in talent reserve".

ITEM	2020	2021	2022	2023
Board Members (person)	5	5	5	5
Female Board Members (person)	0	0	0	0
Middle and Senior Management (person)	95	124	140	138
Female in Middle and Senior Management (person)	19	28	34	33
Female in Middle and Senior Management (%)	20.0	22.5	24.2	23.9
Total of Full Time Employee (person)	3,656	4,670	4,861	4,959
Male Employee (%)	79	82	82	82
Female Employee (%)	21	18	18	18
Employee Below Age of 30 (%)	24.3	21.6	21.1	19.7
Employee Between Age 30~50 (%)	69.1	71.1	70.8	69.9
Employee Above Age 50 (%)	6.6	7.3	8.1	10.3
Employee with Master Degree (%)	3.3	3.5	4.1	4.0
Employee with Bachelor Degree (%)	34.1	33.9	33.6	33.3
Employee Turnover (%)	9.18	11.23	9.92	9.00
Regular Performance and Career Development (%)	100	100	100	100



Cooperative and Disinterested Environment for Internal Talent Exchange

Based on the employees' personal development, the company has been adhering to a fair, inclusive and supportive attitude. When the company has a vacancy, the position will be posted to the internal recruitment "living water platform" website, publicly let all employees know. When an employee submits an application through the platform, we fully consider the employee's personal development intention, and give employees the opportunity through interview evaluation and comparison of internal and external candidates. Similar to the probation period for external candidates, we have a "fitness period" for internal employees. During this period, the company provides training support, professional technical guidance, management capacity improvement, etc., aimed at allowing employees to quickly adapt to the new role. Through full empowerment, let employees play independent initiative to create greater value for the organization and individuals.

A Diversified Learning Platform to Promote Talent Development

In order to build a diversified talent development system and empower employees, the company has developed an internal training platform, "Yingde Academy", which gives employees the opportunity to learn independently and communicate with each other. From the time each new employee joins the company, we create a professional training planning and communication platform for them. The platform provides a full range of training programs for different types of talents. The platform provides empowerment courses for different types of talents, including but not limited to new employee orientation training, professional skills training, talent development programs, manager training, employee open courses, technical training courses on work software, and other training programs.

Employee Engagement

Target: By fostering a diverse and equitable work environment, we strive to address and remove barriers of employee engagement.

Employee evaluations are an important indicator of feedback on how well the company is running. Having excellent, objective, and fair employee participation channels allows employees to talk freely about their opinions. For this reason, the company has adopted an electronic survey on dedication to help the management team understand the concerns of most employees about the company's management system, so that targeted measures can be formulated to eliminate some employee concerns about the company's policies and to improve the efficiency of the process, and promote communication and cooperation. Employees help the company to improve management and dedication through real feedback.

ITEM	2020	2021	2022	2023
Survey Result (organizational engagement) (%)	73.0	80.5	81.9	-
Number of Survey Invitees (person)	4,551	4,195	4,453	-
Number of Survey Completion (person)	4,355	4,053	4,342	-
Survey Response Rate (%)	95.7	96.6	97.5	-

CEO Lounge

Yingde Gases set up the "CEO Lounge" to realize regular exchanges between CEO and all staff. On May 6, 2023, CEO Fang Shiwen discussed the theme of multiculturalism with six staff from different divisions across the country, and more than 1,000 employees watched the live event online and offline. During the live event, CEO gave answers to the questions raised by the employee representatives and answered some of the questions raised by the online employees.

During the event, Fang Shiwen said: "The essence of multiculturalism is to respect and understand differences, tolerate differences with an open mind, and take the initiative to attract more professionals with different cultural backgrounds to join the company and work together. Talent is the engine for a company to realize innovation and creativity. In the current development of AI technology, no matter how developed they are, machines are seeking solutions under the framework given by human beings. Multiculturalism is the cornerstone of innovation, and a company can only remain vibrant in constant innovation."



Employee Community

Yingde Gases encourages employees to form different employee communities outside of work, and has set up a "Colleague Bar" section on WeChat to facilitate diversified employee development and receive employee feedback.

HR Policy Advocacy Improvement

The management team of the company went to the first-line factories to communicate face-to-face with the first-line employees, publicize the corporate culture, and explain the policies and systems of performance management, promotion management, career paths, etc., and answering the employees' questions.

In response to employees' questions about HR policies, the company responded publicly through the online platform and formulated and implemented improvement actions.

"INSPIRATION" – a Half-Yearly Journal

As the company's internal journal, "INSPIRATION" is issued once every six months, covering the company's recent information on business progress, sustainable development, management improvement, QHSE, talent & culture development, employee highlights, etc., to help employees understand the company and cultural integration.





# Employee Benefits

**Target:** To bring a high-quality life and working experience, we implemented an employee benefits system focusing on "Employee Centered" and "Employee Care".



To improve work and life experience, we continuously optimize benefit management. We always pay attention to ‘how to let employees understand the benefit policy better’ and ‘how to provide necessary benefit programs to employees’. We provide comprehensive care and protection for employees and their families with three pillars: statutory benefits, enterprise benefits and employee care.

Benefit Type	Details
Statutory Benefits	<ul style="list-style-type: none"><li>◦ Social insurance and housing provident fund including endowment insurance, medical insurance, unemployment insurance, work-related injury insurance, maternity insurance, and housing provident fund</li><li>◦ Statutory paid holidays: New Year's Day, Spring Festival, Qingming Festival, Labor Day, Dragon Boat Festival, Mid-Autumn Festival, National Day</li><li>◦ Statutory paid leave: annual leave, marriage leave, bereavement leave, maternity leave, maternity leave, paternity leave, etc</li></ul>
Enterprise Benefits	Group insurance (supplementary medical insurance, term-life insurance, critical illness insurance, accident insurance), annual check-up, high temperature allowance and supplies, heating allowance, shuttle bus or transportation allowance, communication expenses, meal allowance or canteen, holiday welfare allowance, etc
Employee Care	Holiday and birthday celebrations, condolence ‘employee care fund’

## Employee Care Fund

We have set up an employee protection fund to relieve the economic pressure of employees timely when they encounter sudden and major difficulties, The fund covers all employees, their spouses and children. We aim to enhance employees’ sense of security and belongings. Every year, there are a few employees or their family members who suffer from big accidents can benefit from the ‘Employee Care Fund’

## Pay Attention to the Employee Wellness

The company organizes employees to have a check-up every year, and invites doctors from hospitals to interpret the check-up report in detail for employees annually. At the same time, we hold online and offline wellness seminars about the abnormal check-up items to improve employee wellness awareness.



# Community Relations

**Yingde Gases' Community Relations Target:** Fulfill corporate social responsibility, focus on the community and education, and continue to contribute value to the society.

Society is the fertile ground for the sustainable and healthy development of an enterprise. Yingde Gases proactively integrates social responsibility into its mission and is committed to empowering society with innovative and sustainable gas solutions. We actively undertake community responsibility, support community public welfare undertakings and help socially disadvantaged groups, and have donated more than 6 million yuan in cash and materials to public welfare undertakings such as anti-epidemic, disaster relief and poverty alleviation. At the same time, we pay special attention to education. We have set up a special scholarship system, carried out industry-university-research cooperation with Xi'an Jiaotong University, and established the Yingde Gases-Xi'an Jiaotong University Joint Innovation Research Institute. We have also built a joint laboratory with Shanghai Dianji University to help the development of advanced manufacturing industry. Every year, we provide internships for students from universities and vocational schools, and recruit and train outstanding fresh graduates from colleges and universities.

## | Volunteering

### Lanzhou Yingde Mid-Autumn Caring Activities

During the Mid-Autumn Festival and National Day in 2023, Lanzhou Yingde, together with Gaolan County Federation of Industry and Commerce and the village committee, went into Yan'erping Village to visit the elderly people in the aim of following the national strategy of revitalization of the countryside. Lanzhou Yingde visited 33 disadvantaged families, and prepared moon cakes, fruits, milk, living materials and other condolences for the long-lived elderly people.





| Donation

Yingde Gases Supported the Earthquake Area in Gansu

On December 18, 2023, a 6.2 magnitude earthquake struck Jiesshishan County, Linxia Zhou, Gansu Province, and the disaster was very serious. Yingde Gases responded quickly and donated 950,000 RMB in cash to the disaster area through Gaolan County Charity Association at the first time to help the local people tide over the difficulties.



Yingde Gases Supported the Flood-Affected Areas in Henan

The heavy rainfall in July 2021 affected more than 150 cities and counties, 1500 towns and 12 million people in Henan Province. On July 25, Yingde Gases donated rice, flour, peanut oil, gloves and other flood relief materials to the Flood and Drought Relief Command of Huaxian County. On July 27, we donated 2 million yuan to the Charity Federation of Huaxian County.



| University-Enterprise Cooperation

Yingde Gases Joined Hands with Zhejiang University of Technology

On May 13, 2023, the ceremony of strategic cooperation and education fund donation between Yingde Gases and Mechanical Engineering School of Zhejiang University of Technology was successfully held. Yingde Gases and Zhejiang University of Technology jointly organized the "Yingde Cup" the 3rd College Students Career Planning Competition with the university and Yingde Gases as the final judges to provide guidance for the students.



Yingde Gases and Shanghai Dianji University Established Joint Lab

On December 13, 2022, the "Joint Laboratory of Industrial Gas Application in Advanced Manufacturing" established by Yingde Gases and Shanghai Dianji University was officially unveiled. The establishment of the Joint Laboratory will promote the development of advanced manufacturing and talent cultivation between both parties, build an all-round partnership and realize the integration of industry and education.




Yingde Gases-Xi'an Jiaotong University Joint Innovation Research Institute Established

On February 19, 2022, the signing ceremony for the joint innovation research institute between Yingde Gases and Xi'an Jiaotong University was held. Chief Executive Officer of Yingde Gases, Fang Shifen, met with Lu Jianjun, Secretary of the Party Committee of Xi'an Jiaotong University, and had an in-depth discussion on the co-construction of the Joint Innovation Research Institute. The Joint Innovation Research Institute with Xi'an University will focus on interdisciplinary cross-cutting topics, break through the university-enterprise boundary, cross departmental boundaries, and facilitate the in-depth integration of industry, university, technology and application.







# Yingde Gases' Corporate Governance

Yingde Gases' Governance Perspective

- Sustainable Governance and Risk Management
- Business Ethics
- Digital Intelligence Empowerment
- Investor Relations and Disclosure

## Yingde Gases' Governance Perspective

Yingde Gases pursues efficient governance and insists on integrating ESG concepts into corporate development, striving to work together with internal and external stakeholders to build a harmonious, green, and sustainable governance structure.

To this end, we established an ESG committee to optimize the company's top-level governance structure. We also established a comprehensive company risk management system and continuously evaluate and reduce identified risks. At the same time, we hold on to business ethics, increased employee ethics training and institutional construction, upheld integrity, and deepened trust from multiple parties.

We supported business integration and transformation innovation through a digitalization strategy, enhanced customer experience externally, gained data insights internally, improved data security, which in all helped the company achieve overall business development.





# Sustainable Governance & Risk Management

**Yingde Gases’ Sustainable Governance and Risk Management Target:** Continuously improve the company’s sustainable governance and risk management system, empower company’s sustainable development.

## Yingde’s Sustainable Governance

The board of directors of Yingde Gases supervises the company's values and strategies, provides annual recommendations on the company’s prospects and business plans, and advice to management on the company's strategic issues. The board of directors of Yingde Gases consists of 5 members. The company's board of directors also includes an audit committee, a nomination committee, and a compensation committee.



In order to implement the company's sustainable development action, Yingde Gases has established the “ESG committee”, which is responsible for formulating ESG strategic plans and targets, supervising the implementation of ESG management work, and promoting interaction between the company and external stakeholders.

The “ESG committee” of Yingde Gases is responsible for long-term tracking and supervision of internal issues including but not limited to ESG strategy, industry innovation, safety and health, employees and society, diversity and inclusion, business ethics, and greenhouse gases emissions. The “ESG Task Team” under the “ESG Committee”, is responsible for implementing various ESG issues and enhancing ESG performance. The “ESG Committee” directs the “ESG Task Team” in preparing and publicly releasing the annual ESG report.

## Yingde’s Risk Management

In order to better improve the company's risk management system, Yingde Gases has established a comprehensive “3–step” risk management framework: utilizing information transparency, anomaly monitoring, and report & handling to manage corporate level risks.



The company regularly evaluates various identified risks, including environmental, social, and governance related risks and opportunities. Accordingly, we also propose suggestions to reduce risks, supervise their implementation, and ensure that all risks in the company’s business operations and sustainable development are controllable and preventable.

# Business Ethics

**Yingde Gases’ Business Ethics Target:** Strongly adhere to business ethics and compliance standards, and create a clean, transparent, and fair business ethics system.


Macro level business ethics is the creation and realization of commercial value on a reasonable and legal basis. The mid-level business ethics come from the internal management of the company. Micro level business ethics come from the values that companies assign to their employees.

At the level of comprehensive compliance operation, the board of directors and core management are the main bodies responsible for establishing business ethics standards and implementing them. At the level of employee business ethics training, we have implemented 100% training on the principles of business ethics in the Employee Handbook for new employees. 100% of department managers and above have completed the 'Conflict of Interest Management Training' and exams.

Metrics	2020	2021	2022	2023
Annual average number of hours of employee ethics training (hour)	–	19.3	15.6	24.6
Proportion of department managers and above who receive business ethics training (%)	100	100	100	100
Number of participants in conflict-of-interest training and examination (person)	496	489	522	573
Number of business ethics standard in the company (number)	8	9	9	9

- The company's business ethics policy include: Ethical Issue Supervision Policy: "Anti-Fraud Management System", "Employee Handbook"
- Bribery and Anti-Corruption Policy: "Anti-Corruption Compliance Policy"
- Regular Review of Ethical Standards: such as the "Employee Handbook"
- Employee Ethics Training Standards: Training on "Code of Business Conduct and Ethics for Employees", "Conflict of Interest Management Training for Employees", and relevant exams.







**“Employee Handbook”**

Explanation of the definition of "conflict of interest";  
Conflict of interest situations;  
Principles for handling conflicts of interest.  
Integrity and discipline; Confidentiality discipline;  
Disciplinary action, etc.

**“Internal Audit Charter”**

As an independent risk management organization, the audit department is responsible for investigating, reporting, and proposing improvement plans for risk issues.






**“Employee Reward and Punishment Management Measures” and “Punishment Implementation Rules”**  
(BGQTZ02044&BGQTTZ02005)


Specific rules for employee rewards and punishments, including the circumstances of rewards and punishments, handling procedures, measures, etc.

**“Employee Code of Conduct”**

Yingde Gases [2019] No. 013

Comprehensively elaborated on the code of conduct for all employees of Yingde Gases, as well as the reporting and handling procedures for violations of the code of conduct.





**“Anti-Corruption Compliance Policy” and “Conflict of Interest Management System”**


Yingde Gases [2021] No.1 and No.2

Identification, Disclosure, and Exemption of Conflicts of Interest  
Prevention of Conflicts of Interest and Related Management  
Measures Identification, Prevention, Investigation, and Handling of Corruption Matters.

**“Management Measures for Confidentiality of Trade Secrets” and “Internal Matters**  
**Yingde Gas Confidentiality Management Measures, 4th Edition”**

(BGQTZ02051&BGQTZ02029)

Comprehensively elaborated on the scope of trade secrets, management responsibilities, management processes, and non-competition regulations.



# Digital Intelligence Empowerment

**Yingde Gases’ Digital Intelligence Target: Utilize digital technology to accelerate a deeper integration of digitalization and business, to further enhance global operational management compliance capabilities, and to help the corporation achieve overall business development strategies and goals.**

The digital transformation of Yingde Gases is an important part of the company's "Leap" Strategy. The company has established a digital unified base centered on big data, achieving ten end-to-end core business loops including planning, budgeting, business execution, performance, and feedback. In order to address the issues of "how to reduce the cost of digital system learning for employees at all levels of the company", "how to better obtain customer experience", and "how to obtain better data insights", the company has formulated a "3-Step" digital transformation strategy: Firstly, foundation integration and consolidation; Secondly, comprehensive coverage and key breakthroughs; Finally, data-driven leading innovation.



Image: Yingde Gases’ Digitalization Strategy Layout

In terms of digital security, with the construction of digital intelligence, network and information security, Yingde Gases holds "Information Security Week" on the fourth week of November every year. We integrate information security, data security classification protection, and permission control through AI for a greater digital security protection.



Digital Coverage

A1 project

On January 1, 2023, the Yingde Gases’ A1 project was launched and put into operation, achieving the first application of intelligent algorithms in industry. A1 project includes but not limited to logistics scheduling, intelligent tax management, and digital invoicing.

In terms of intelligent operation, we promote device-based mobile inspection, energy management, and safety production, implementation of “AI+” action plans. We also apply them in scenarios such as predictive maintenance of equipment, intelligent customer service, contract review, and financial and tax consulting. We use big data to optimize processes and models to improve supply chain operation collaboration and promote digital employees. Through digitization, we have comprehensively improved the company's management and operational efficiency.



Yingde Gases Received the "Dingge Award" for Digital Transformation

On October 26, 2023, at the Harvard Business Review China Annual Meeting, Yingde Gases became the first award-winning enterprise in the industrial gas industry with its digital "A1 project", and won the Annual All Data Smart Enterprise Award——“the 2023 Dingge Award” . Yingde Gases’ CEO Fang Shiwen was selected as the annual enterprise leader of “the 2023 Dingge Award” on the Digital Transformation Pioneer List.



Investor Relations and Disclosure

Yingde Gases’ Investor Relations and Disclosure Target: Establish a clear, transparent, and organic communication mechanism for information exchange between the company and investors.

Yingde Gases has maintained close communication with its investor PAG Investment Group for many years. This kind of communication is not only reflected in the regular management meetings at the executive level, but also in the frequent communication between Yingde Gases’ department managers at headquarters and PAG leaders. This report is the result of thorough communication and research with stakeholders, including PAG, under the leadership of the board of directors. We are well aware that through information disclosure and communication, companies can strengthen communication with investors and potential investors, enhance investors' understanding and recognition of the company, improve corporate governance, maximize the overall interests of the company, and protect the legitimate rights and interests of investors. Insufficient disclosure and communication can also bring corresponding risks. To this end, the Company's Corporate Publicity Department discloses the corporate information to our investors and stakeholders through multiple channels, including WeChat official account, the company's official website, the company's internal magazines and etc.



## Summary and Outlook

Today, the concept of sustainable development has become a consensus among global enterprises, and its impact will affect future industrial structures, production methods, and company operations. 2023 is also a year full of achievements for Yingde Gases in most ESG aspects. During this year, we established an ESG committee to embrace sustainable development through governance enhancement. We introduced a future oriented corporate culture that embodies openness, progress, respect, and responsibility, advocating for inclusivity and diversity.

We have established a "Five in One" green action plan, which includes: improving energy efficiency technology, utilizing low-carbon energy, transforming to cleaner businesses, enhancing digital management capabilities, and empowering society with green initiatives.

Compared with the benchmark year of 2020, our carbon emission intensity per unit of revenue has decreased by about 20%, and we have achieved our emission reduction target for 2025 ahead of schedule; We focus on empowering employees and society, protecting employee health and safety, empowering employee career development, enhancing employee welfare, and ultimately achieving diversified, harmonious, and efficient enterprise operations; We adhere to business ethics and strengthen ethical training and education for employees and executives; We use digital means to enhance the company's management capabilities, improve efficiency, and reduce waste.

We respond to external expectations and internalize ESG management goals into the company's management system through proactive disclosure, achieving a win-win value.

In the future, Yingde Gases will steadfastly move forward on the path of sustainable development, embracing greenness, empowering employees, giving back to society, and continuing to create greater value for shareholders and stakeholders.





ESG Key Metrics Index

ITEM	2020	2021	2022	2023
CO <sub>2</sub> Absolute Emissions (t)	20,220,764	20,144,530	19,614,045	19,203,066
Year on year changes in CO <sub>2</sub> Absolute Emissions (%)	-2.313	-0.377	-2.633	-2.095
Scope One Emissions (t)	4,242,219.63	3,973,236.82	4,105,013.62	4,358,641.04
Scope Two Emissions (t)	16,021,127.67	16,171,293.61	15,509,031.50	14,844,425.99
CO <sub>2</sub> Recycling and Utilization (t)	42,582.50	174,201.30	200,710.68	194,810.31
Carbon Emission Intensity per Unit of Revenue (t/10,000 RMB)	10.41	10.57	8.41	8.31
Year on year changes in Carbon Emission Intensity (%)	-3.566	1.537	-20.435	-1.189
Total CO <sub>2</sub> Emissions from Clean Energy Factories (t)	4,701,815.50	4,529,023.60	4,636,931.20	4,909,640.80
Total CO <sub>2</sub> Emissions from Air Separation Plants (t)	15,407,778	15,572,965	14,930,787	14,249,286
Total CO <sub>2</sub> Emissions from Transportation Sector (t)	13,651	14,390	14,972	18,335
Total CO <sub>2</sub> Emissions from Hydrogen Production Plants (t)	96,749	20,356	23,677	18,676
Total CO <sub>2</sub> Emissions from Mechanical Equipment Manufacturing Factories (t)	447	568	576	540
Total CO <sub>2</sub> Emissions from Other Industries (deionized water) (t)	0	6,833	6,885	6,400
Total Carbon Emissions from Non-Production Sectors (t)	203	395	217	187

ITEM	2020	2021	2022	2023
Number of Factories in the Carbon Market (No.)	5	5	6	6
Absolute Electricity Usage (MWh)	14,928,410	14,428,646	14,552,404	14,112,990
Total Renewable Energy Usage (MWh)	0	72,515	95,443	114,977
Proportion of Renewable Energy Use in total Electricity Consumption (%)	0	0.50	0.66	0.81
Year on year Change in the Proportion of Renewable Energy Usage (%)	0	100	30.50	24.21
Investment in Energy-Saving Technology (10,000 RMB)	-	28,046	21,965	20,578
Proportion of Energy-Saving Technology Investment to Total Technology Investment (%)	-	60	51	46
Low Carbon Product R&D Investment (10,000 RMB)	-	151	273	140
Total Energy Consumption (GJ)	167,241,079	153,968,541	157,291,447	157,699,208
Percentage of Grid Power Supply (%)	100	100	100	100
Total Renewable Energy Usage (MWh)	0	72,515.64	95,443.53	114,977.53
Renewable Energy Usage (GJ)	0	261,056	343,596	413,919
Proportion of Renewable Energy Use in total Electricity Consumption (%)	0	0.1695	0.2184	0.2624



ITEM	2020	2021	2022	2023
Total Self-Produced Energy (GJ)	0	0	0	0
Total CO <sub>2</sub> Emissions Savings from Energy Efficiency Improvement (t)	-	-	161,698	128,474
Total Technological Transformation Investment (10,000 RMB)	3,106	5,012	6,213	8,800
Total Water Use (10,000 Tons)	-	-	4,474.43	4,493.02
Total Amount Of Reclaimed Water (10,000 Tons)	-	-	1,827.56	1,904.55
Condensate Water Recovery (10,000 Tons)	-	-	657.05	755.28
ASU Condensate Recovery Amount (Tons)	-	-	85.66	87.01
ASU Circulating Water Rate	-	-	98.81	98.93
Hazardous Waste(Ton)	-	-	417.30	690.99
Product Vehicle Accident Rate (per million km accident rate)	0.68	0.39	0.62	0.29
Lost Time Injury Rate ( lost time injuries and illnesses per million hours)	0.17	0.23	0.13	0.05
Number of Employee Deaths Due to Work-Related Accident (person)	0	0	0	0
Survey Result (organizational engagement) (%)	73.0	80.5	81.9	-

ITEM	2020	2021	2022	2023
Number of Survey Invitees (person)	4,551	4,195	4,453	-
Number of Survey Completion (person)	4,355	4,053	4,342	-
Survey Response Rate (%)	95.7	96.6	97.5	-
Board Members (person)	5	5	5	5
Female Board Members (person)	0	0	0	0
Senior Management (person)	9	9	9	9
Female in Senior Management (person)	1	1	1	1
Total Middle and Senior Management Members (person)	95	124	140	138
Female in Middle and Senior Management (person)	19	28	34	33
Female in Middle and Senior Management (%)	20.0	22.5	24.2	23.9
Total Employee (person)	3,656	4,670	4,861	4,959
Full Time Employee (person)	3,557	4,542	4,772	4,854
Contractor Employee (person)	75	113	72	64
Male Employee (%)	79	82	82	82
Female Employee (%)	21	18	18	18
Employee Below Age of 30 (%)	24.3	21.6	21.1	19.7
Employee Between Age 30~50 (%)	69.1	71.1	70.8	69.9



ITEM	2020	2021	2022	2023
Employee Above Age 50 (%)	6.6	7.3	8.1	10.3
Employee with Master Degree and Above (%)	3.3	3.5	4.1	4.0
Employee with Bachelor Degree (%)	34.1	33.9	33.6	33.3
Employee Turnover (%)	9.18	11.23	9.92	9.00
Regular Performance and Career Development (%)	100	100	100	100
Full Time Employee Change Due to Acquisition (person)	0	1,051	0	76
New Hire (person)	0	0	191	22
Retirement Engagement (person)	24	15	17	41
Annual Average Number of Hours of Employee Ethics Training (hour)	-	19.3	15.6	24.6
Proportion of Department Managers and Above Who Receive Business Ethics Training (%)	100	100	100	100
Number of Participants in Conflict-of-Interest Training and Examination (person)	496	489	522	573
Number of Business Ethics Standard in the Company (No.)	8	9	9	9

ESG Disclosure Standards Index

Yingde Gases is a supporter of "IFRS Sustainability Disclosure Standards". Thus, this report refers to the frameworks from "IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information" and "IFRS S2 Climate-related Disclosures".

Specific disclosure guidelines can be found on the ISSB official website: <https://www.ifrs.org/sustainability/tcfd/>

In the disclosure index, we will utilize the following dimensions:

- Governance: Disclose the organization's governance around climate related risks and opportunities.
  - Strategy: The method of managing sustainable risks and opportunities through management.
  - Risk management: The process used by entities to identify, assess, prioritize, and monitor sustainability related risks and opportunities.
  - Metrics and Targets: The performance of the entity in terms of sustainability and opportunities, including the progress made towards any targets set or required by laws and regulations.
- Each materiality topic will be indexed from the 4 dimensions above.

Materiality Topics	Dimensions	Chapter Indexes	Pages
GHGs Emissions	◦ Governance	◦ Yingde Gases' GreenAction-GHG Emissions	◦ Page 19
	◦ Strategy	◦ How We Create ESG Value-GHG Emissions	◦ Page 09
	◦ Risk Management	◦ Yingde Gases' GreenAction-GHG Emissions	◦ Page 19
	◦ Metrics & Targets	◦ How We Create ESG Value-GHG Emissions	◦ Page 09
Renewable Energy Utilization	◦ Governance	◦ Yingde Gases' GreenAction-Renewable Energy Utilization	◦ Page 20
	◦ Strategy	◦ How We Create ESG Value-Renewable Energy Utilization	◦ Page 09
	◦ Risk Management	◦ Yingde Gases' GreenAction-Renewable Energy Utilization	◦ Page 20
	◦ Metrics & Targets	◦ How We Create ESG Value-Renewable Energy Utilization	◦ Page 09
Sustainable R&D	◦ Governance	◦ Yingde Gases' GreenAction-Sustainable R&D	◦ Page 22
	◦ Strategy	◦ How We Create ESG Value-Sustainable R&D	◦ Page 09
	◦ Risk Management	◦ Yingde Gases' GreenAction-Sustainable R&D	◦ Page 22
	◦ Metrics & Targets	◦ How We Create ESG Value-Sustainable R&D	◦ Page 09
Energy Management	◦ Governance	◦ Yingde Gases' GreenAction-Energy Management	◦ Page 23
	◦ Strategy	◦ How We Create ESG Value-Energy Management	◦ Page 10
	◦ Risk Management	◦ Yingde Gases' GreenAction-Energy Management	◦ Page 23
	◦ Metrics & Targets	◦ How We Create ESG Value-Energy Management	◦ Page 10



议题	话题	章节索引	页数索引
Water Resource Management	◦ Governance	◦ Yingde Gases' GreenAction-Water Resource Management	◦ Page 24
	◦ Strategy	◦ How We Create ESG Value-Water Resource Management	◦ Page 10
	◦Risk Management	◦ Yingde Gases' GreenAction-Water Resource Management	◦ Page 24
	◦ Metrics & Targets	◦ How We Create ESG Value-Water Resource Management	◦ Page 10
Toxic Emissions & Waste Management	◦ Governance	◦ Yingde Gases' GreenAction-Toxic Emissions & Waste Management	◦ Page 25
	◦ Strategy	◦ How We Create ESG Value-Toxic Emissions & Waste Management	◦ Page 10
	◦Risk Management	◦ Yingde Gases' GreenAction-Toxic Emissions & Waste Management	◦ Page 25
	◦ Metrics & Targets	◦ How We Create ESG Value-Toxic Emissions & Waste Management	◦ Page 10
Safety and Health	◦ Governance	◦ Yingde Gases' Social Empowerment-Safety and Health	◦ Page 29
	◦ Strategy	◦ How We Create ESG Value-Safety and Health	◦ Page 11
	◦Risk Management	◦ Yingde Gases' Social Empowerment-Safety and Health	◦ Page 29
	◦ Metrics & Targets	◦ How We Create ESG Value-Safety and Health	◦ Page 11
Employee Recruitment	◦ Governance	◦ Yingde Gases' Social Empowerment-Recruitment	◦ Page 30
	◦ Strategy	◦ How We Create ESG Value-Recruitment	◦ Page 11
	◦Risk Management	◦ Yingde Gases' Social Empowerment-Recruitment	◦ Page 30
	◦ Metrics & Targets	◦ How We Create ESG Value-Recruitment	◦ Page 11
Diversity and Inclusion	◦ Governance	◦ Yingde Gases' Social Empowerment-Diversity and Inclusion	◦ Page 32
	◦ Strategy	◦ How We Create ESG Value-Diversity and Inclusion	◦ Page 11
	◦Risk Management	◦ Yingde Gases' Social Empowerment-Diversity and Inclusion	◦ Page 32
	◦ Metrics & Targets	◦ How We Create ESG Value-Diversity and Inclusion	◦ Page 11
Employee Engagement	◦ Governance	◦ Yingde Gases' Social Empowerment-Employee Engagement	◦ Page 33
	◦ Strategy	◦ How We Create ESG Value-Employee Engagement	◦ Page 12
	◦Risk Management	◦ Yingde Gases' Social Empowerment-Employee Engagement	◦ Page 33
	◦ Metrics & Targets	◦ How We Create ESG Value-Employee Engagement	◦ Page 12

议题	话题	章节索引	页数索引
Employee Benefits	◦ Governance	◦ Yingde Gases' Social Empowerment-Employee Benefits	◦ Page 35
	◦ Strategy	◦ How We Create ESG Value-Employee Benefits	◦ Page 12
	◦Risk Management	◦ Yingde Gases' Social Empowerment-Employee Benefits	◦ Page 35
	◦ Metrics & Targets	◦ How We Create ESG Value-Employee Benefits	◦ Page 12
Community Relations	◦ Governance	◦ Yingde Gases' Social Empowerment-Community Relations	◦ Page 36
	◦ Strategy	◦ How We Create ESG Value-Community Relations	◦ Page 12
	◦Risk Management	◦ Yingde Gases' Social Empowerment-Community Relations	◦ Page 36
	◦ Metrics & Targets	◦How We Create ESG Value-Community Relations	◦ Page 12
Sustainable Governance and Risk Management	◦ Governance	◦ Yingde Gases' Corporate Governance-Sustainable Governance and Risk Management	◦ Page 41
	◦ Strategy	◦ How We Create ESG Value-Sustainable Governance and Risk Management	◦ Page 13
	◦Risk Management	◦ Yingde Gases' Corporate Governance-Sustainable Governance and Risk Management	◦ Page 41
	◦ Metrics & Targets	◦ How We Create ESG Value-Sustainable Governance and Risk Management	◦ Page 13
Business Ethics	◦ Governance	◦ Yingde Gases' Corporate Governance-Business Ethics	◦ Page 42
	◦ Strategy	◦ How We Create ESG Value-Business Ethics	◦ Page 13
	◦Risk Management	◦ Yingde Gases' Corporate Governance-Business Ethics	◦ Page 42
	◦ Metrics & Targets	◦ How We Create ESG Value-Business Ethics	◦ Page 13
Digital Intelligence Empowerment	◦ Governance	◦ Yingde Gases' Corporate Governance-Digital Intelligence Empowerment	◦ Page 44
	◦ Strategy	◦ How We Create ESG Value-Digital Intelligence Empowerment	◦ Page 14
	◦Risk Management	◦ Yingde Gases' Corporate Governance-Digital Intelligence Empowerment	◦ Page 44
	◦ Metrics & Targets	◦ How We Create ESG Value-Digital Intelligence Empowerment	◦ Page 14
Investor Relations and Disclosure	◦ Governance	◦ Yingde Gases' Corporate Governance-Investor Relations and Disclosure	◦ Page 46
	◦ Strategy	◦ How We Create ESG Value-Investor Relations and Disclosure	◦ Page 14
	◦Risk Management	◦ Yingde Gases' Corporate Governance-Investor Relations and Disclosure	◦ Page 46
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ESG Assurance Document



致盈德气体的管理层及利益相关方：

中国质量认证中心有限公司（以下简称 CQC）受盈德气体的委托，我司已经连续开展 3 年（2021 年度、2022 年度、2023 年度）集团碳排放核算的工作。为此，本司确认盈德气体 2021-2023 年的碳排放数据如下表：

指标 Index	2021	2022	2023
CO <sub>2</sub> 排放绝对量 (t) Absolute CO <sub>2</sub> Emissions	20,144,469	19,614,045	19,203,066
范围一排放 (t) Scope 1 Emissions	3,973,236	4,105,013	4,358,641
范围二排放 (t) Scope 2 Emissions	16,171,293	15,509,031	14,844,425
CO <sub>2</sub> 回收利用量 (t) CO <sub>2</sub> Capture & Utilization	174,201	200,710	194,810
清洁能源工厂碳排放总量 (t) Total CO <sub>2</sub> from coal chemical plants	4,529,023	4,636,931	4,909,641
空分工厂碳排放总量 (t) Total CO <sub>2</sub> from air separation plants	15,572,965	14,930,787	14,249,287
运输板块碳排放总量 (t) Total CO <sub>2</sub> from Transportation Sector	14,390	14,972	18,335
制氢工厂碳排放总量 (t) Total CO <sub>2</sub> from Hydrogen Production Plants	20,356	23,677	18,676
机械设备制造工厂碳排放总量 (t) Total CO <sub>2</sub> from Mechanical Equipment Manufacturing Plants	568	576	540
其他工业（去离子水）碳排放总量 (t) Total CO <sub>2</sub> from Other Industries Plants (Deionized Water)	6,833	6,885	6,400
非生产板块碳排放总量 (t) Total CO <sub>2</sub> from Non-Production Sector	395	217	187

——以上结果由 CQC 上海分中心计算

核算依据：

- 1. 《企业温室气体排放报告核查指南》
- 2. 《中国化工生产企业温室气体排放核算方法与报告指南（试行）》
- 3. 《陆上交通运输企业温室气体排放核算方法与报告指南（试行）》
- 4. 《机械设备制造企业温室气体排放核算方法与报告指南（试行）》
- 5. 《工业其他行业企业温室气体排放核算方法与报告指南（试行）》
- 6. 《温室气体排放报告补充数据表》（生态环境部发布）
- 7. 《空分工厂运行 KPI 指标的定义和分析标准作业程序》
- 8. 《工业气体空分单位产品能源消耗限额》（DB31/ 757-2020）
- 9. 其它有关的法律法规、国家及行业标准

