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#### **Goldwind Science & Technology Co., Ltd.**

No. 107 Shanghai Road, Economic & Technological Development District, Urumqi, Xinjiang

Tel: +86(0)991- 3767402 Fax: +86(0)991- 3762039 Post code: 830026

#### Beijing Goldwind Science & Creation Windpower Equipment Co.,Ltd.

No. 19 Kang Ding Street, Economic & Technological Development Zone, Beijing (first-phase project)

Tel: +86(0)10-87857500 Fax: +86(0)10-87857529

No. 8 Bo Xing 1st Road, Economic & Technological Development Zone, Beijing (second-phase project)

Tel: +86(0)10-67511888 Fax: +86(0)10-67511983

Post code: 100176



Goldwind Science & Technology Co., Ltd.

# 2024 Sustainability Report





















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Goldwind Science & Technology Co., Ltd. 2024 Sustainability Report // About the Report

#### **About the Report**

This is the 2024 Sustainability Report of Goldwind Science & Technology Co., Ltd., disclosing relevant information about the Company's fulfillment of its Environmental, Social, and Governance (ESG) performance in 2024.



#### Reporting Scope

This report is mainly about Goldwind Science & Technology Co., Ltd. (hereinafter referred to as "Goldwind", "the Company", "We", or "the Group"), covering Goldwind and its subsidiaries. Apart from certain organizations with particular descriptions, the scope is consistent with the annual report issued by the Company.



#### **Reporting Period**

This report is an annual report covering the period from January 1, 2024, to December 31, 2024. To ensure the continuity of disclosure, some of the content may go beyond the period listed above.



#### Reporting Reference

This report is prepared in accordance with the relevant requirements of the *Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited* Appendix C2: *Environmental, Social, and Governance Reporting Guide*, as well as the *No. 1 Self-regulatory Guidelines for Listed Companies – Standardized Operation of Companies Listed on the Main Board* of Shenzhen Stock. It also draws extensive reference from the United Nations Sustainable Development Goals (UNSDGs), the Ten Principles of the United Nations Global Compact (UNGC), and the Global Reporting Initiative (GRI) Sustainability Reporting Standards (GRI-Standards).



#### Principles of Report Preparation

This report is prepared based on the principles of materiality, quantitative, balance, and consistency to ensure the substance, scientificity, objectivity, and comparability of the report.

Materiality: Goldwind follows a systematic process to identify material issues. Through stakeholder engagement and management evaluation, the Company determines the content and scope of its disclosures.

Quantitative: The key quantitative performance indicators in this report follow scientific statistical standards, methods, calculation tools, and conversion factors. Important reference sources, calculation methods, and data changes are explained in the report definition.

Balance: This report objectively discloses Goldwind's sustainable development performance during the reporting period and avoids a presentation format that may inappropriately affect the decision-making and judgment of stakeholders.

Consistency: Unless otherwise specified, the disclosure content and the statistical methods and basis used for the data in this report are consistent with those for previous years.



#### Notes on Data

The financial data disclosed in the report is obtained from the Company's Annual Report, while other data is from the Company's internal statistics. Unless indicated otherwise, any amount in the report is denominated in RMB.



#### Reporting Commitment

All the content and data disclosed in this report have been reviewed and approved by the Board of Directors of Goldwind Science & Technology Co., Ltd. To ensure the authenticity and reliability of the report, the Company has engaged SWCS Corporate Services Group (Hong Kong) Limited to carry out independent third-party assurance on some key indicators of this report in accordance with AA1000 Assurance Standard v3 (AA1000AS v3).



#### **Board Statement**

This report has been reviewed and approved by the Board of Directors of Goldwind. The Board of Directors of the Company undertakes that the content of this report does not contain any false records or misleading statements, and is responsible for the authenticity, accuracy, and completeness of its content.



#### Report Availability

This report is available in simplified Chinese, traditional Chinese, and English. Should there be any inconsistency among the different versions, the simplified Chinese version shall prevail. To view and download this report, please visit www.goldwind.com, www.szse.cn, or www.hkenews.hk.



#### **Contact Information**

Address: No. 8 Boxing 1st Road, Economic-Technological Development Area, Beijing, China 100176

Tel.: +86-(0)10-67511888

Email: sustainability@goldwind.com

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Goldwind Science & Technology Co., Ltd. 2024 Sustainability Report

// Letter from the Chairman

#### Letter from the Chairman

In 2024, the global climate crisis and energy security challenges became increasingly intertwined, driving the international community to accelerate efforts in reaching consensus on green transformation. At the United Nations Climate Change Conference (COP29), the International Renewable Energy Agency (IRENA) released the *World Energy Transition Outlook 2024*. The report called on countries to enhance their nationally determined contributions with greater ambition, aiming to triple renewable electricity capacity and double energy efficiency by 2030. Concurrently, China has been actively implementing its Dual Carbon Strategy (Carbon Peaking & Neutrality), which has led to accelerated development of a new power system, expansion of renewable energy certificate (REC) markets, and integration of energy mix transformation with the digital economy and new-quality productive forces. In this context, Goldwind has actively addressed both domestic and international energy transition demands. By leading innovation in the energy sector's transformation, the Company is tackling climate change head-on, while focusing on stakeholder needs and contributing to global sustainable development, all while maintaining stable business growth.

We deeply recognize that sustainable development naturally arises from advances of social productivity and technological innovation, and is the "golden key" to solving the current global problems. Goldwind adheres to the mission of "Innovating for a brighter tomorrow" and continues to explore the sustainable development management model with Goldwind's characteristics. Together with our stakeholders, Goldwind will create a sustainable future by integrating the concept of sustainable development with its daily operation.



This year, we remained committed to independent innovation, driving breakthroughs in both our products and technologies Goldwind firmly adheres to the principles of independent innovation, delivering wind power products and technologies characterized by high-level research, high-standard manufacturing, and high social benefits. In 2024, we launched the next generation of our onshore flagship GWH204 Ultra, designed to meet the demands of complex scenarios such as mountainous and rural wind power projects. We also unveiled the next-generation offshore flagship GWH300-20(25)MW, which reduces the levelized cost of electricity (LCOE) by up to 10% for wind farms. Additionally, the National Wind Power Technology Innovation Center, led by Goldwind, was inaugurated in Xinjiang. Together with industry partners, we have built a technological innovation platform that integrates wind turbine system technology, materials and manufacturing technology, simulation and experimental technology, and new power system technology. Furthermore, we continued to deepen our presence in the service market by completing the 220 kV black-start capability verification test for China's first grid-forming wind-storage integrated power station. Our "unmanned" new energy station solutions were implemented in seven provinces and regions, including Henan, Ningxia, and Xinjiang.

This year, we further expanded our overseas operations, pushing forward the global energy transition

As one of the pioneering domestic wind power companies to go global, Goldwind has always embraced the principle of "advancing globalization through localization." We have established seven regional centers worldwide. In 2024, we signed the contract for our first project in Georgia. This project currently emerges as the largest single-capacity wind power project in the country. Besides, we successfully entered the Philippine market and installed our first wind turbine in Japan. Our business now spans six continents and 47 countries across the globe.

The Company's first overseas manufacturing base for wind power equipment, the Brazil Wind Power Equipment Manufacturing Base, has commenced operations, with the first wind turbine successfully rolled off the production line. We have also signed a contract with SPIC Brasil to provide wind turbines as well as operation and maintenance services, which marks our first localized supply project in Brazil.

This year, we fully committed to a green philosophy and proactively implemented low-carbon environmental protection initiatives

This year, we prioritized stakeholders and fully acted on sustainable development initiatives

Goldwind has fully integrated a green philosophy into every aspect of product design, procurement, production, and operation. By doing so, we are consistently reducing our impact on the external ecosystem while actively combating global climate change. In 2024, we continued to explore the potential and opportunities for carbon emission reduction within our products. We independently achieved Environmental Product Declaration (EPD) certification for three wind turbine models. By considering the unique characteristics of each business segment and local conditions, we developed customized plans aimed at increasing green electricity usage during production and operational activities. Furthermore, we actively encouraged our suppliers to utilize green electricity. Throughout all phases—development, construction, and operation—of wind farms, we established management measures designed to mitigate any adverse environmental impacts associated with wind farm project activities on surrounding ecosystems.

Goldwind is committed to its sustainable development strategy, which serves as our guiding framework. We have actively responded to the aspirations of various stakeholders, striving to achieve mutually beneficial outcomes for shareholders, customers, employees, suppliers, communities, and other relevant parties. In 2024, the Company focused on systematically launching initiatives across five key areas of our sustainable development strategy. We adhered to principles of integrity and compliance in our operations while enhancing risk management practices. This approach enabled us to achieve coordinated growth in both shareholder value and social benefits. We launched energy conservation and consumption reduction initiatives in all aspects while enhancing our resource recycling capabilities. We also are committed to protecting the ecological environment in the areas where we operate. With our procurement practices based on fairness and transparency, we undertook projects such as "Supplier Social Responsibility Management" and "Green Supply Chain", exploring wind turbine recyclability to foster industrial chain development. Furthermore, Goldwind is committed to safeguarding employee rights and interests by ensuring occupational health and safety standards are met. We provide a diverse range of benefits for our employees while striving to foster a work environment that is diverse, equitable, healthy, and friendly. Additionally, we leverage our strengths to support community development around our operational areas while encouraging employees' active engagement in social welfare initiatives.

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**About Us** 

#### **Company Profile**

As a reliable global strategic partner in clean energy, Goldwind is committed to building an energy foundation to drive a renewable future centered on the EOD (Ecology Oriented Development)+ENERGY clean energy industry model. The Company was founded in Urumqi, Xinjiang, China in 1998, and restructured into a limited company in 2001. It was listed on the Shenzhen Stock Exchange in December 2007 (stock code: 002202) and on the Main Board of the Hong Kong Stock Exchange in October 2010 (stock code: 2208).

Since we started our business, we have witnessed and experienced the growth and prosperity of China's renewable energy industry. We have helped clients worldwide tap into the value of clean energy with comprehensive and in-depth internationalization capabilities. As of the end of 2024, Goldwind's business network covers 47 countries across six continents. We have about 11,000 employees worldwide, including over 3,000 research and development (R&D) and technical personnel. The company has established 7 overseas regional centers worldwide, fully realized the internationalization of capital, market, technology, talents and management.

Leveraging its advanced technologies, high-quality products, and extensive expertise accumulated over years in the R&D and manufacturing of wind turbines, the Company has consistently held a leading position within the industry for an extended period. According to the statistics of BloombergNEF (Bloomberg New Energy Finance), in 2024, the Company's annual newly added installed capacity in the domestic market amounted to 18.67 GW, maintaining the top position in China for fourteen consecutive years. The company's annual newly added installed capacity of wind power globally reached 19.3 GW, ranking first globally for three consecutive years.

#### **Our Business**

WTG Manufacturing, R&D and Sales

2,568 units

Annual sold of wind turbines

16,052.99<sub>MW</sub>

Annual capacity sold

Wind Power Service

13,776<sub>MW</sub>

Scale of the external wind farm asset management services

40<sub>GW</sub>

Post warranty projects under operation at home and abroad nearly

Wind Farm Investment and Development

1,980.28<sub>MW</sub>

Newly added grid-connected attributable installed capacity on self-owned wind farms at home and abroad

8,042.85 MW

Global cumulative grid-connected attributable installed capacity

2,340 hours

Number of average power generation utilization hours of domestic turbines

16.262 billion kWh

The power generation at home and abroad accounted in the consolidated financial statements

Water Treatment

63

Number of water treatment companies

2,534,500 tons/day

Total operating capacity

#### **Corporate Strategy**

Goldwind undertakes the mission of Innovating for a Brighter Tomorrow and is committed to becoming a globally trusted strategic partner in clean energy. During the "14th Five-Year Plan" period, the Company continues to focus on high-quality development, guided by the values of "reverence for nature, facilitation of clients' success, leading the innovation, legal compliance, as well as healthy and long-term development". With a strategic intent centered on "Innovation leading, Efficiency-driven and High-quality growth", Goldwind aims to advance sustainable development initiatives.

#### Mission



Vision



Innovating for a brighter tomorrow

Becoming a reliable global strategic partner in clean energy

#### **Core values**





#### Reverence for nature

Following the laws of nature and focusing on a bigger picture, we promote the sustainable development of the Company and the industrial chains through scientific approaches and from a long-term perspective.

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#### Facilitation of clients' success

Goldwind stands in the shoes of clients, to gain insight into clients' real needs, respond to clients' demands quickly, and provide personalized products and services for clients. We help clients maximize their sustainable values, winning their long-term respect and trust.

#### Leading the innovation



Innovation is the core driving force underlying Goldwind's development. Goldwind pursues innovation-driven growth and continuously innovates its theories, policies, technologies, culture, and other aspects in an all-around way. Goldwind fosters a spirit of strong creativity and curiosity, actively exploring new business opportunities and models. We dare to innovate and pioneer, embracing open-mindedness and courage even in challenging conditions where there are no precedents.

#### Legal compliance



Goldwind operates in a transparent and legally compliant manner. It abides by local laws and regulations in locations where it operates, respects local customs and culture, and integrates itself into the local environment. We maintain an awareness of legal compliance, fulfill our responsibilities, and strictly implement company policies. We honor our commitments and keep our promises.

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#### Healthy and long-term development

Company health is an important basis for our sustainable development. Only a healthy organization and healthy employees can bring about the long-term sustainable development of the enterprise.

#### **Goldwind's Strategic Intent**

Innovation leading



..Efficiency-driven



It serves as the core of Goldwind's development. Centered around scientific and technological innovation, the Company consistently propels breakthroughs in technology, products, markets, business models, and ecological innovation. In this way, it seeks business growth, leads the industry to move forward continuously, and ensures the long-term development of industrial civilization.

It is the main focus of Goldwind's transformation. With a customer value orientation, we enhance organizational efficiency operational efficiency, and employee growth efficiency to drive high-speed execution in business and management.

It is the objective of Goldwind's sustainable development. We focus on operational quality, talent quality, product quality, cash flow health, and profitability to promote gradual globalization of the Company

#### **Major Awards and Honors**

Awards and Honors	Awarding Organisations
2023 National Science and Technology Progress Award	National Office for Science & Technology Awards
National May 1st Labor Award	All-China Federation of Trade Unions (ACFTU)
"2024 Top 100 Happy Enterprises" and "Top 30 Excellent Employers rankings"	National Energy Administration (NEA)
Ten Typical Cases of Patent Industrialization by the China National Intellectual Property Administration (CNIPA)	China National Intellectual Property Administration (CNIPA)
Selected for the Fortune China 500 and Fortune China Tech 50 lists	Fortune
The Best Listed Company of 2024	New Fortune
Awarded the title of "Best Partner" in the new energy industry	ENGIE Group (France)
Included in the 2024 Top 100 Happy Enterprises and Top 30 Excellent Employers rankings	The Economic Observer and Beijing Foreign Enterprise Human Resources Service Co., Ltd. (FESCO)
Typical Cases of Inclusive Finance in 2024	21st Century Finance Research Institute under Southern Finance Omnimedia Corp. and China Association for Small & Medium Commercial Enterprises (CASME)
Top 500 New Economy Enterprises	China Enterprises Evaluation Association (CEEA)
Admitted to the list of "Industrial Internet + Large-scale Model Pilot Demonstration"	Ministry of Industry and Information Technology (MIIT)
Placed on the Top 100 New Entity Enterprises list	China Enterprises Evaluation Association (CEEA)

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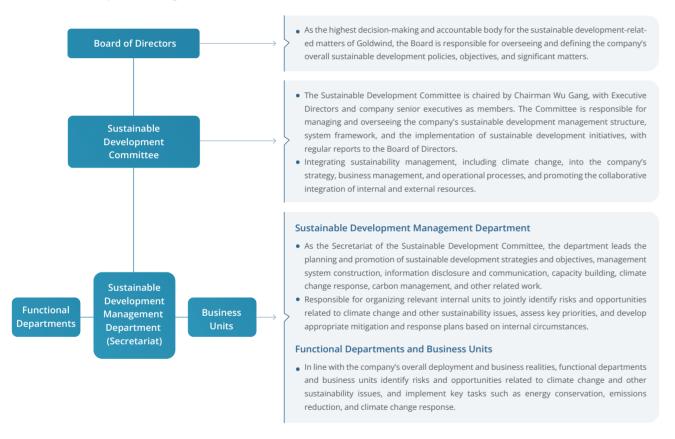
#### Sustainable Development Management

Goldwind has incorporated the sustainable development concept into its strategic culture and management processes. By formulating a strategic plan for sustainable development and establishing a corresponding organizational structure and management system, the Company has continuously carried out capacity-building activities. Goldwind actively responds to stakeholders expectations and has gradually established a management model for sustainable development that reflects its unique characteristics.

#### Sustainable Development Management Structure

Goldwind continuously improves its organizational system for sustainable development, with a well-defined top-down governance structure and management mechanism in place. In line with this framework, the Company rationally allocates resources and integrates sustainability into corporate strategy, operational management and business processes. Additionally, by comprehensively identifies risks and opportunities, setting goals, and following up on their achievement, we offer organizational assurance for the implementation of Goldwind's sustainable development efforts. In 2024, the Board of Directors reviewed the summary of the previous year's sustainable development work along with the 2024 plan, defining priorities and directions for future efforts. The Sustainable Development Management Department regularly reports progress on key initiatives to the Sustainable Development Committee.

#### Sustainable Development Management Structure of Goldwind



#### Sustainable Development System Building

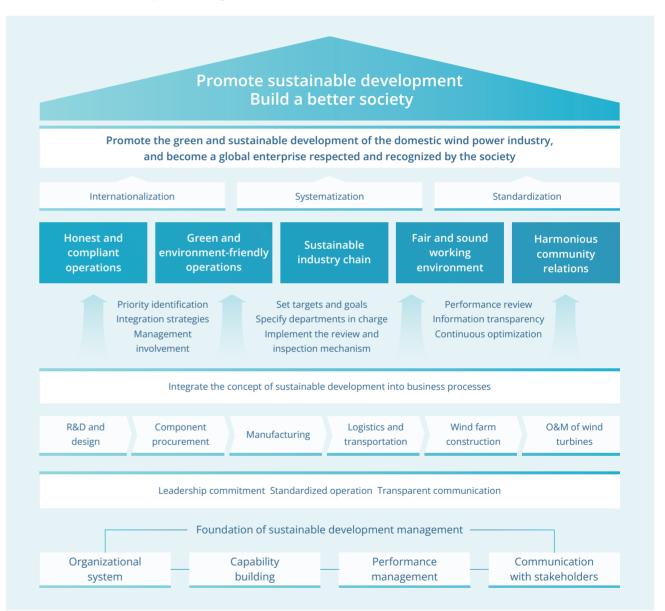
To further enhance its sustainable development management level and performance, Goldwind has developed its social responsibility management system in accordance with the *Social Responsibility Management Systems - Requirements with Guidance for Use* (GB/T 39604-2020). The Company has completed the introduction of the social responsibility management system across the entire group, established a corresponding organizational structure, sorted out social responsibility issues and stakeholders, identified social responsibility risks and opportunities, determined annual goals and indicators, enhanced the awareness and ability of all employees to fulfill their responsibilities, and promoted the in-depth integration of the social responsibility system with daily operation management.

In 2024, the Company obtained the certification of the national standard for the social responsibility management system, *Social Responsibility Management Systems - Requirements with Guidance for Use* (GB/T 39604-2020), becoming the first enterprise in the wind power industry to receive this certification.

# Sustainable Development Strategic Planning

Goldwind plans sustainable development strategies and identifies important issues of sustainable development around five major fields: honest and compliant operations, green and environment-friendly operations, sustainable industrial chain, fair and sound working environment, and harmonious community relations. On this basis, sustainable development goals and action plans are set up.

Goldwind Sustainable Development Strategic House



Based on these five major fields of sustainable development strategic planning, the Company identifies priorities and breaks them down into sustainable development projects and targets, and gradually promotes their implementation within the company. In 2024, under the supervision and guidance of the Company's Board of Directors and the Sustainable Development Committee, the Company managed to deploy internal and external resources to promote sustainable development projects and improve sustainable development management capacity.

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Goldwind Science & Technology Co., Ltd.

2024 Sustainability Report // Sustainable Development Management

In 2024, the Company's goals in the five major fields of sustainable development were on track. The Company has strictly complied with laws, regulations, and operational management requirements. It has continuously improved the compliance and risk management systems, conducted comprehensive risk assessments and response measures, clarified its reporting and investigation procedures, and organized compliance and anti-fraud publicity and education to create a culture of integrity, self-discipline, and legal compliance. The Company has increased its investment in energy-saving technological transformation and implemented multiple energy-saving and consumption-reduction measures. By 2024, the greenhouse gas (GHG) emissions per MW had decreased significantly compared to that in 2020. 61.8% of its global production and operation activities were powered by green electricity while maintaining carbon neutrality at the operational level (Scope 1 and Scope 2). The Company has also continuously

conducted its social responsibility audits for suppliers while enhancing their use of green electricity. The audit rate for major components suppliers of wind turbines (manufacturing) has been maintained at 100%, with a green electricity usage rate of 78% among major suppliers producing Goldwind products. The Company strictly adheres to labor laws in the locations where it operates while upholding employees' basic rights. There have been no cases of discrimination, forced labor, child labor, or human trafficking. It also values employee health management as well as career development. Goldwind places great importance on building strong relationships with the communities in which it operates. By the end of 2024, the cumulative number of volunteer hours contributed by our employees had reached an impressive total of 47,346 hours.

#### Fields of sustainable development

#### Honest and compliant operations

Adhere to the concept of "honest and compliant operations" and continuously enhance its corporate governance and compliance management system to implement risk management and strengthens its internal supervision, inspection, and constraint mechanisms. Foster a culture of integrity and compliance, we aim to ensure the healthy development of the organization.

#### Sustainable development goals









#### Green and environment-friendly operations

Comprehensively identify and address climate change risks and opportunities. Actively implement energy-saving measures, improve the effective use of energy and resources, deepen green operations, protect the ecological environment, and safeguard sustainable development for our business, in an effort to become a global leader in addressing climate change.

- By 2025, greenhouse gas emissions per MW will be reduced by 25% compared to 2020.
- By 2025, hazardous waste generated per MW of wind turbine manufactured should be 20% lower than that in 2020.
- By 2025, the water use intensity for production and operations should be 15% lower than that in 2020.
- Since 2022, carbon neutrality at the operational level (Scope 1 and Scope 2) should be achieved.
- By 2031, 100% of its global production and operations will be powered by green electricity.





#### Sustainable industrial chain

Integrate the concept of sustainable development into every link of the industrial chain, influence and encourage upstream and downstream enterprises to fulfill their social responsibilities, so as to prevent environmental and social risks within our supply chain while enhancing collaborative sustainability efforts in our industry, leading a sustainable transformation.









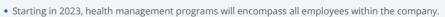




#### Fair and sound working environment

Strictly comply with relevant laws and regulations and international conventions, to govern the management of employment and employees' rights and interests, and foster a workplace free of discrimination, child labor, and forced labor. Emphasize diversity, equality, and inclusiveness, and care about employees' development and their well-being to enhance employee cohesion and satisfaction.









#### Harmonious community relations



Respect and uphold the legitimate rights and interests of its interested parties such as communities, manage and protect the natural and social resources in locations where it operates in a sustainable manner, improve the livelihoods of residents in the surrounding communities as much as possible by leveraging our business strengths and resources, and realize mutual benefits and synergistic development to jointly build a fair and harmonious development environment.

- By 2030, the number of Goldwind volunteers should reach 5,000, with approximately 5,000 hours of annual volunteer work.
- By 2025, at least 10 youth science labs should be built.





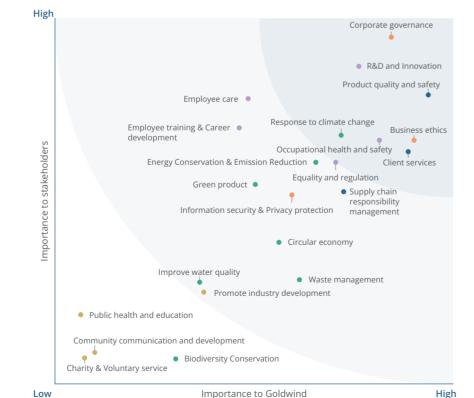
## Sustainable Development Capacity Building

Throughout the year, Goldwind organized a variety of training activities to enhance its professional capabilities in sustainable development. The Company carried out an ESG special training for all employees, elaborating on the origin and development of ESG. Besides, the Company offered sustainable development management training for the management, which shared strategies for implementing sustainable development in the context of high-quality corporate growth. Furthermore, training sessions on the Social Accountability 8000 (SA8000) International Standard were provided for human resources staff. In 2024, Goldwind included social responsibility training as a mandatory course for all new recruits, with its coverage remaining at 100%.

#### Identification of Material Issues

Goldwind carefully considers macroeconomic policies, industry characteristics, and the expectations of both internal and external stakeholders. Informed by relevant exchange guidelines as well as domestic and international standards, guidelines, and initiatives related to sustainable development, and aligned with our business characteristics and strategic direction, we have undertaken our comprehensive identification, assessment, and screening process for material issues. Through stakeholder research and impact assessment, the Company has identified 22 key sustainability material issues impacting both the organization and its stakeholders, and developed a materiality matrix based on the evaluation results.

#### Materiality Matrix of Goldwind



Highly important

Moderately important

Generally important

Honest and compliant operations

Green and environment-friendly operations

Sustainable industrial chain

Fair and sound working environmentHarmonious community relations

We actively disseminate information related to sustainable development by establishing internal communication channels and organizing training activities that promote knowledge in this area. In April 2024, the Company launched an internal WeChat official account to deliver ESG updates. Throughout the year, it pushed 52 issues of ESG updates to all employees. These updates covered the latest effective laws, regulations, and standards related to environment, health, safety, and sustainability (EHSS), as well as carbon management knowledge such as carbon footprint standard calculation, China's carbon market policies, and the European Green Deal. This comprehensively assisted employees in deepening their understanding and awareness of sustainable development.

#### Communication with Stakeholders

The social responsibility and sustainable development efforts of Goldwind are fundamentally reliant on the understanding, recognition, and support of its stakeholders. The Company communicates with its stakeholders on its sustainable development efforts. The Company releases a Sustainability Report, engages in external interviews and market research, and participates in conferences and forums on sustainable development to share information about the Company's sustainable efforts while obtaining feedback from stakeholders on their expectations and suggestions, thereby continuously optimizing sustainable development efforts.

Stakeholders	Major Concerns or Expectations	Responses
Shareholders and creditors	Enhance sustainable profitability     Standardize corporate governance     Disclose operational information     Deliver returns to shareholders     Improve solvency	Upgrade business management practices Innovate profit models Strengthen debt risk management Optimize compliance management systems Ensure timely and accurate information disclosure Organize shareholders' meeting Share profits with shareholders
Clients	Fulfill contracts in good faith     Offer high-quality products     Provide excellent services     Responses to requests promptly	Strictly enforce contracts  Ensure product quality  Promote technological innovation  Provide high-quality services  Refine complaint-handling processes  Protect client privacy
Employees	Protect legal rights and interests Guarantee salary and welfare packages Provide health and safety protection Offer development platforms	Implement fair and standard employment Guarantee timely salary payments & social insurance contributions Enhance talent development pathways Provide competitive salaries Offer diversified employee benefits Offer a healthy and safe work environment
Suppliers and other partners	Implement transparent procurement practices     Fulfill contracts in good faith     Pursue win-win cooperation	Conduct open and fair procurement processes  Make timely payments for goods received  Conduct supplier training programs  Support suppliers' development
Community	Protect the local environment Support community development Support charity and welfare	Implement energy-saving measures and emission-reduction strategies     Preserve ecological environment     Support community development     Carry out public welfare activities
Government	Observe laws and discipline     Contribute to local development     Pay taxes according to law	Comply with laws and regulations Pay taxes according to law Offer job opportunities Drive development of related industries
Financial institutions, R&D institutions, schools, and the media	Seek common development opportunities     Ensure information disclosure	<ul> <li>Engage in strategic partnerships and industry-university-research collaborations</li> <li>Organize activities such as visits and meetings</li> <li>Participate actively in external conferences and forums</li> </ul>

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#### Sustainable Development Ratings and Recognition

In 2024, Goldwind's sustainable development practices and achievements were widely recognized by organizations, media, and rating agencies at home and abroad, winning multiple awards and favorable rating results.

#### Sustainable development-related ratings

Rating agency	Rating
MSCI	BBB
EcoVadis	Silver Medal
CDP	С
Sustainalytics	26.3
FTSE Russell ESG	3.0
SynTao Green Finance	A-
SusallWave ESG rating	AA

#### Sustainable development-related honors and awards

Awards and recognition	Awarded by
Awarded the accolade of 20th New Fortune "Best in ESG Disclosure" and "Best in ESG Practices"	New Fortune
"2024 Green Sustainable ESG Top 100", "Top 10 Outstanding Value Contribution", and "Top 10 Exemplary Governance Contribution"	China Energy News
Selected for the ESG Best Practice Cases of Listed Companies in China (2024)	China Association for Public Companies (CAPCO)
2024 Leadership Award for Excellent Corporate Sustainability Report	Golden Bee
Included in the Top 100 Low-Carbon Brands	China International Fair for Trade in Services (CIFTIS)

# Industry Engagement in Sustainable Development

Goldwind recognizes that sustainable development requires the cooperation of all parties. Therefore, it actively engages in domestic and overseas organizations and initiatives, committed to promoting the value chain to jointly address the challenges of sustainable development, and facilitating the sustainable development of the industry and society as a whole.

#### United Nations Global Compact (UNGC)

The Company joined the United Nations Global Compact (UNGC) in April 2021, committing to abide by its ten principles covering human rights, labor, environment, and anti-corruption, among others, and continue to promote the Company's sustainable development strategy, culture, and operations to be closely aligned with it. Practical actions have been taken to support and fulfill the global commitment to sustainable development.

#### RE100 Initiative

As a green initiative with global influence and appeal launched by the well-known international organization Climate Group, RE100 brings more than 400 global companies with outstanding leadership together. Goldwind announced its accession to the RE100 in 2023, in an effort to combat the global climate crisis and promote China's energy revolution.

#### Global Alliance for Sustainable Energy

Together with 17 influential utilities, global players in the wind power and solar industries, sector associations, and innovation partners, the Company jointly established the Global Alliance for Sustainable Energy to launch more strategic and ambitious sustainability development initiatives, thus taking the lead in the sustainable development of the global renewable energy industry with a focus on collaboration and innovation.

#### China ESG Leaders Association

Goldwind became a member of the China ESG Leaders Association in 2019. The Company is dedicated to promoting and practicing values such as sustainable development, responsible investment, and ESG values alongside other distinguished ESG business leaders. Goldwind aims to enhance overall corporate ESG management efficiency, lead industry best practices, and establish competitive advantages for Chinese enterprises as an ESG leader on the global stage.

#### "Mission Innovation" and "Green Powered Future" Initiatives

By joining the "Mission Innovation" and "Green Powered Future" initiatives in 2021, the Company has been committed to continuously facilitating the R&D and engineering promotion of wind power generation technologies, thus contributing to the achievement of 100% renewable energy use in regions with diverse geographical and climatic conditions of the world.



# 03

#### Product Service and R&D Innovation

Goldwind intensively focuses on the WTG Manufacturing, R&D and sales, wind power service, wind farm investment and development, water treatment, and other related businesses, driving sustainable development across economic social, and environmental dimensions.

Goldwind Science & Technology Co., Ltd. 2024 Sustainability Report // Product Service and R&D Innovation

#### **Sustainable Products**

#### Product Innovation and R&D

Goldwind persists in investing in R&D technologies and collaborates with global partners to drive sustainable innovation. Our Beijing R&D Headquarters, Xinjiang White Bird Lake Innovation Center and six R&D bases worldwide constitute the key drivers of our leading position in cutting-edge technology and development.

The Company has introduced several innovation incentive systems, including the *Group Technology Innovation Management System*, the *Group Intellectual Property Incentive Implementation Rules*, and the *Group Technical Standard Reward Implementation Rules*. By continuously increasing investment in R&D, Goldwind aims to discover, cultivate, and motivate scientific and technological talent, thereby enhancing its capabilities for independent innovation.

#### 2024



R&D investment

2.803 billion

R&D investment as a percentage

4.94

R&D personnel

3,213

Proportion of R&D personnel

28.88%

To ensure patent protection across all sub-technical fields of its products, Goldwind has developed and implemented over ten regulatory frameworks including the *Group Intellectual Property Management System*, the *Group Intellectual Property Risk Management Measures*, and the *Group Supplier Intellectual Property Management Measures*. Additionally, Goldwind proactively identifies potential intellectual property infringement risks through patent searches and infringement risk analyses. Corresponding preventive measures are implemented to mitigate these risks and avoid infringing on others' intellectual property rights. By the end of 2024, Goldwind had submitted a total of 6,173 domestic patent applications (including 3,740 invention patents) and had held a cumulative total of 4,541 authorized domestic patents (including 2,279 invention patents). In addition, it also had boasted 1,345 overseas patent applications with 811 granted overseas patents.

Goldwind actively responds to China's "14th Five-Year Plan" and the carbon peaking and carbon neutrality goals, aligns itself with market and client needs, and constantly introduces new products and new technologies to promote sustainable development within the wind power industry. In 2024, Goldwind launched a range of high-quality, high-performance onshore and offshore wind power products. Goldwind's onshore flagship, the GWH204 Ultra series, features a rotor diameter of 204 meters with capacities ranging from 4 MW to 10 MW. It is designed for optimal performance across various challenging environments such as high wind speeds, high altitudes, rural areas as well as sandy regions. The deep-sea flagship product GWH300-20(25) MW boasts a rotor diameter of 300 meters with power outputs between 20 MW and 25 MW. This model is resilient against super typhoons exceeding wind speeds of 60m/s while achieving favorable returns in water depths spanning from 50 m to 70 m.

Moreover, Goldwind's independently developed GW147 wind turbine blade—the longest in the world—has successfully completed static load testing, marking a significant breakthrough in the design, manufacturing processes, and certification standards of wind turbine blades in China. Additionally, the first batch project utilizing grid-forming technology (2.0) has commenced electricity generation. This project serves as an exemplary model for integrating new energy into weak grid environments and has boosted the overall performance of power systems driven by renewable energy.



Goldwind Science & Technology Co., Ltd.

2024 Sustainability Report // Product Service and R&D Innovation

#### **Product Quality and Safety**

Goldwind has consistently implemented a "quality-first" strategic culture, continuously enhancing quality management throughout all processes to ensure the intrinsic safety of our products while maintaining a customer-centric value orientation. In 2024, building on the existing ISO 9001 Quality Management System Certification, which already covers its core business, Goldwind expanded the scope of certification to include hybrid tower, energy storage, and energy and carbon business.

To further elevate our overall quality management standards, we introduced the "Wind Power Chapter" of Goldwind Quality Management Code. This code standardizes quality management procedures across all business functions, including sales of wind turbines, product planning, design and development, procurement, manufacturing, delivery, installation, operation and maintenance, as well as service and support. It aims to enhance both quality awareness and capabilities among all employees. In terms of preventing quality incidents, the Company conducted nearly 40,000 on-site inspections in 2024. These inspections were critical for proactively identifying potential quality risks and preventing major incidents from occurring. Regarding accountability for quality responsibilities, individuals or teams that have diligently fulfilled their duties related to quality management are recognized with rewards in accordance with our Group's Rewards and Punishments Management System. Conversely, responsible parties or entities that fail to meet their obligations will face penalties as stipulated by the "Wind Power Chapter" of Goldwind Quality Management Code, alongside additional disciplinary actions based on the severity of any resulting issues, in accordance with both our Group's Rewards and Punishments Management System and Quality Management System. When addressing any identified safety incidents or accidents, we strictly adhere to the Four Non-Closure Principles for Incident Management, ensuring that: root causes are thoroughly investigated before case closure; accountable parties and relevant personnel receive safety education before case closure; preventative measures are established and effectively implemented before case closure; and primary responsible parties face appropriate penalties before case closure.

Since the beginning of turbine development and design, the Company has fully considered health, safety, and other elements, and implemented awareness of safety into design. The Company proactively identifies various potential risks associated with its products during the initial design phases by incorporating protective features such as anti-slip designs, anti-fall mechanisms, anti-collision measures, and emergency escape protocols. The Company effectively delivers safety information to customers through its product instruction manuals, which clearly outline the safety system in place. This includes detailed descriptions of features such as controller software protection and safety chains independent of the controller. In 2024, no products sold or shipped were recalled for safety issues.

Additionally, the Company has standardized its procedures for managing customer feedback and complaints. It has issued and implemented the Measures for Handling Customer Feedback and Complaint Issues, which include the establishment of a proactive customer complaint risk early-warning mechanism. The Customer Feedback and Complaint Management Team and Rapid Response Team work collaboratively to ensure that customer feedback and complaints are addressed promptly and effectively. Goldwind has implemented a primary issue responsibility system alongside cross-departmental collaboration mechanisms to ensure efficient problem resolution. For urgent issues, special solution teams are formed to facilitate prompt responses. The Company systematically summarizes and analyzes its complaint-handling processes to trace underlying issues within product chains, enabling continuous improvement and comprehensive closed-loop management of all complaint-related matters. In 2024, the company received one customer complaint and achieved a 100% resolution rate. Goldwind places significant emphasis on customer experience and conducts satisfaction surveys at critical stages, including the pre-project and bidding phases, project construction, and operation and maintenance during the warranty period. Additionally, the Company regularly assesses customers' overall satisfaction with product quality, delivery, and services through online questionnaires. In 2024, the customer satisfaction survey results reached an impressive score of 97 points, indicating an improvement from the previous year.

#### **Environmentally Sound** Wind Turbines

Moreover, Goldwind integrates low-carbon and environmental protection principles throughout the entire life cycle of its wind turbine products. By focusing on technological innovation and process optimization, the Company is dedicated to creating environmentally friendly wind turbines. The Company continues to carry out Life Cycle Assessment (LCA) of wind turbines to analyze their environmental impact factors throughout their life cycle, identify opportunities to improve their environmental performance at different stages, and explore opportunities to reduce carbon emissions and gradually reduce carbon footprints.

As of December 2024, the company had completed Life Cycle Assessment (LCA) for 12 wind turbine models, and had obtained the Environmental Product Declaration (EPD) certification under the EPD Italy system, issued by ICMQ (Institute of Quality Mark for the Construction Sector). Data reveals that the lowest carbon emissions per kilowatt-hour throughout the entire lifecycle of Goldwind's currently available wind turbine units are down to 3.52 grams—less than 1% of emissions from traditional thermal power sources, demonstrating the Company's commitment to sustainability and low-carbon technology in its products.

Wind turbine category	CO <sub>2</sub> e emission per kWh <sup>1</sup>
Goldwind GW155-4.5MW wind turbine	7.25g¹
Goldwind GW136-4.2MW wind turbine	8.04g <sup>1</sup>
Goldwind GW165-5.2MW wind turbine	6.23g¹
Goldwind GW165-5.6MW wind turbine	5.95g¹
Goldwind GW165-6.0MW wind turbine	5.71g <sup>1</sup>
Goldwind GWH182-5.3MW wind turbine	4.41g²
Goldwind GWH182-6.2MW wind turbine	4.05g <sup>2</sup>
Goldwind GWH182-7.2MW wind turbine	3.82g <sup>2</sup>
Goldwind GWH182-7.5MW wind turbine	3.72g²
Goldwind GWH170-7.2MW wind turbine	3.77g <sup>2</sup>
Goldwind GWH175-7.8MW wind turbine	3.64g²
Goldwind GWH182-8.0MW wind turbine	3.52g <sup>2</sup>

Goldwind consistently monitors and addresses the environmental impacts of its wind turbines. The Company employs various measures such as bird protection devices, noise reduction technologies, and rotational speed and sector control to mitigate potential effects on surrounding communities. Additionally, by offering customized painting options for the turbines—resulting in multicolored wind turbines, Goldwind aims to harmonize its installations with the local cultural and natural environment. These efforts contribute to continuously enhancing the environmental attributes of its wind turbines.

Birds and bats: Goldwind utilizes a variety of advanced technologies, including video analysis, thermal imaging, sound detection, and radar detection to track bird activity effectively. To deter birds from entering the operational zones of the turbines, Goldwind employs several methods such as ultrasonic technology, high-power digital voice technology, strong flash, laser bird-repelling technology, and shockwave explosion-repelling technology. Furthermore, Goldwind is investigating the use of ultraviolet-reflective coatings on turbine hubs and blades to discourage birds from approaching. In addition to bird protection initiatives, the Company has developed strategies specifically aimed at safeguarding bat populations. By analyzing environmental conditions to assess bat activity patterns and integrating wind speed variables into operational controls for wind turbines, Goldwind has achieved significant reductions in bat mortality rates.

For wind farms required for noise reduction, the sound pressure level at specified points is controlled by increasing the trailing edge of the blades through prediction based on the sound source model and propagation model, thus reducing the noise of wind turbines and enhancing their environmentally sound performance.

Shadow flicker: Our wind turbines are equipped with the shadow flicker operation mode, enabling the calculation of the shadow impact range based on rotor length, height, rotation frequency, and ambient light intensity, active adjustment of turbine operation status, and control of shadow flicker frequency through rotational speed control and sector management.

Eco-landscape: When selecting the location and laying out wind turbines, the surrounding landscape features are fully considered, and active consultations are held with the local community to build wind farms in conjunction with the layout of local industrial planning, thus minimizing the impact on the surrounding landscape. Painting is customized for wind turbines and multicolored wind turbines are available, so that they are blended perfectly with the culture and the environment.

<sup>&</sup>lt;sup>1</sup>The data for the carbon equivalent emissions per unit of electricity fed into grid of turbines are based on a 20-year life cycle;

<sup>&</sup>lt;sup>2</sup>The data for the carbon equivalent emissions per unit of electricity fed into grid of turbines are based on a 25-year life cycle.

#### Sustainable Wind Farms

#### Transportation of Wind Turbine Components

Goldwind integrates the concept of sustainable development throughout the entire life cycle of wind farm construction and operations. The Company is committed to continuously enhancing its management systems to minimize and prevent any adverse effects that wind farm projects may have on the surrounding environment and local communities.

In the transportation of large-scale wind turbine components, Goldwind adheres to the fundamental principle of prioritizing "people first and safe production". The Company strictly complies with national traffic and transportation laws and regulations, has developed the *Land Transportation Safety Manual for Logistics Service Providers*, and conducts comprehensive safety management throughout the transportation process. This includes clearly defining provisions to prevent personal injury accidents, performing risk assessments for each node in the transportation chain, and formulating corresponding mitigation plans.

To minimize impacts on communities and the environment along the transportation route, Goldwind implements a series of relevant measures.



- The Company conducts thorough road surveys prior to transportation to identify and address issues such as overhead cables, obstacles, and road conditions on village pathways. Additionally, it takes care to avoid sensitive areas that intersect with ecological red lines.
- Goldwind places a strong emphasis on engaging with local communities along the transportation route. To minimize disruptions to residents' daily lives, nighttime transportation is prohibited, ensuring that the transport activities proceed in an orderly manner without disturbing the normal routine of the villages.
- For large wind turbine components, specialized equipment and techniques are employed to ensure safety and stability during transport. Adjustments are made to blade height and angle to prevent collisions with obstacles while minimizing noise and vibrations.
- During transportation, escort vehicles are deployed alongside the transport operations, staffed by trained personnel who implement temporary traffic control measures. Prominent safety warning signs are placed at locations where oversized or over-dimensional equipment is being transported, alerting nearby vehicles and pedestrians to maintain a safe distance from the transport equipment.
- Upon completion of transportation, any ecological damage incurred is swiftly addressed through restoration or compensation as needed.

Goldwind is committed to green transportation practices and prioritizes logistics service providers that utilize new energy vehicles whenever feasible. Furthermore, the Company adopts multi-modal logistics solutions that integrate railways, highways, and waterways. This strategy not only enhances overall efficiency but also mitigates environmental pollution linked to single-mode transport methods. By leveraging an optimal distance algorithm model in route planning, Goldwind effectively reduces both travel mileage and time, leading to lower energy consumption and emissions.

#### Wind Farm Construction

Goldwind strictly adheres to relevant laws and regulations concerning ecological environmental protection, including the *Regulations on the Administration of Construction Project Environmental Protection*, the *Interim Measures for the Management of Land Use and Environmental Protection in Wind Farm Projects*, and the *Several Opinions on Delineating and Strictly Abiding by the Ecological Protection Red Line*. The Company develops and implements management systems such as the *Measures for Compliance Document Management of the Development of Onshore Wind Power Projects* and the *Environmental Protection and Soil Conservation Management System*. These systems ensure that environmental protection is conducted in accordance with legal requirements throughout all phases of wind power projects, from development to construction and operation.

#### **Environmental Protection Risk Identification**

The Company diligently undertakes all legal compliance procedures during the pre-development phase to ensure that wind power projects do not encroach upon prohibited areas, including nature reserves, scenic spots, drinking water source protection zones, ecological protection red lines, basic farmland, and bird migration corridors.



Upon project completion, the Company conducts acceptance evaluations related to environmental protections such as soil and water conservation. Acceptance reports are compiled and made publicly available.

Acceptance of Environmental Protection Achievements

Implementation of Environmental Protection Measures

In accordance with legal requirements, the Company develops soil and water conservation plans and environ-

mental impact assessment reports. It mandates that the

general contractor allocate special funds during the design

and construction phases to strictly enforce environmental

protection measures. Additionally, a supervisory organiza-

tion is entrusted with overseeing implementation. This

approach guarantees adherence to the "Three Simultanei-

ties" principle—simultaneous design, construction, and

commissioning of environmental protection measures.

#### Capacity Building in Environmental Protection

By incorporating the management of environmental and water conservation compliance procedures, as well as administrative penalties, into the incentive assessment framework for relevant personnel, and by organizing specialized compliance training, the Company effectively mitigates environmental risks.

#### Smart Operation and Maintenance

Goldwind has established a nationwide network of localized service resources, enabling it to respond swiftly to customer needs and mobilize resources from various locations to address issues, thereby ensuring the continuous and stable operation of wind power equipment.

In 2024, the Company successfully developed and launched a new unmanned station solution for the renewable energy sector, achieving commercial success across multiple regional subsidiaries. This digital solution enhances customers' operational and maintenance efficiency through measures such as intelligent replacement of manual inspections, improved alarm handling efficiency, and intelligent task scheduling. By reducing on-site staffing, it significantly contributes to enhanced operational management levels in wind farms while minimizing or avoiding negative impacts on customers, society, and the environment during operations. The following specific measures are implemented:

Automated Inspection

This system automatically collects operational data and status information from equipment. It performs automatic analysis and evaluation to promptly identify any abnormal conditions and issue alerts. This not only reduces the workload associated with manual inspections but also enhances both the accuracy and efficiency of inspections.

Utilizing unified alarm levels and classifications, the system cost-effectively integrates alarm information from



various systems, devices, and applications, providing comprehensive one-stop alarm management. It allows for the configuration of multiple filtering rules based on different scenarios to automatically eliminate repetitive, invalid, or low-priority alarms. Furthermore, the system includes functionalities such as rapid alarm retrieval, confirmation, clearance, accuracy feedback, and business linkage processing.



Goldwind leverages advanced artificial intelligence technology to conduct a comprehensive analysis of historical data. The system takes into account various factors, including time windows for operation and maintenance tasks and fluctuations in electricity prices. As a result, it automatically generates optimized schedules for on-site tasks across multiple wind farms, including fault resolution, overhauls, inspections, technological upgrades, and early warning responses, thereby enhancing the efficiency of operation and maintenance tasks.

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#### Smart Water Treatment

Goldwind is deeply engaged in the water treatment industry chain by focusing on investment development as well as construction operations and technological innovation related to water utility assets. The Company's water utility services cover municipal water supply, municipal sewage treatment, industrial sewage treatment, and reuse of recycled water, providing clean water to more than 10 million people. By the end of 2024, Goldwind owned 63 water treatment companies with a total operational scale of 2,534,500 tons per day.

The Company has established a digital intelligent water utility platform that integrates perception and detection, refined supervision, digital control, objective evaluation, and intelligent decision-making. This platform leverages real-time data analysis from water treatment plants, including laboratory testing and operational status. By employing intelligent analytics in a more precise and instantaneous manner, the platform effectively manages water plants to ensure efficient operations and significantly enhance the quality of water treatment. In 2024, the Company provided additional management functions, such as online acceptance of chemicals and equipment inspections using QR codes. These measures effectively ensured the stable and compliant discharge of water from the treatment plants.



Smart Energy
Storage and
Smart Energy
Carbon Services

As an innovator aiming at a zero-carbon future, Goldwind uses artificial intelligence and digital IoT technologies to make products safer, more reliable, and more economical through its smart energy storage products and smart energy and carbon services to provide users with diversified solutions.

In terms of smart energy storage, Goldwind provides "Three-in-One Power Services", which encompass power station operation and maintenance services, grid auxiliary services, and power trading services. This offering is built upon a highly autonomous product line that includes battery cells, modules, battery systems, power conversion systems (PCSs), battery management systems (BMSs), and cloud platforms. Through the application of system integration technology, intelligent

manufacturing processes, and smart operation and maintenance techniques, the Company significantly enhances the production and operational efficiency of its energy storage systems. Leveraging its leading energy storage grid-forming technology, Goldwind offers essential grid auxiliary services such as peak shaving, frequency regulation, and black start capabilities. These services contribute to maintaining stability in voltage and frequency while ensuring the reliability of the power grid. Additionally, by utilizing its power trading system alongside accumulated practical experience, Goldwind provides intelligent power scheduling and energy trading solutions that facilitate flexible supply and smart distribution of clean energy. This approach not only improves the efficiency and stability of power grid operations but also significantly boosts the return on investment for customer projects.

In the aspect of smart energy and carbon services, Goldwind has developed an innovative management model that encompasses all energy links—power source, power grid, power load, power storage, power charging, and smart power. This model facilitates comprehensive carbon reduction across campuses by focusing on three key aspects: the supply side, the consumption side, and the trading side. Utilizing intelligent software within the Goldwind Oasis Zero-Carbon Platform, which includes a carbon-accounting system, micro-grid dispatching system, energy management system, and smart campus management system, the Company seamlessly integrates clean energy solutions with digital technologies. This integration enables the development of a holistic zero-carbon smart campus solution that is specifically tailored to meet the requirements of new power systems. By the end of 2024, over 500 zero-carbon projects had been promoted, spanning a wide range of industries, including port and shipping logistics, steel smelting, petroleum and petrochemicals, building materials and cement manufacturing, data centers, pharmaceuticals, water utility services, animal husbandry and aquaculture, as well as commercial real estate.





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# Honest and Compliant Operations

Goldwind adheres to honest and compliant operations and steadily improves its governance, so as to create value for shareholders and society.

Goldwind Science & Technology Co., Ltd. 2024 Sustainability Report #Honest and Compliant Operations

#### Corporate Governance

Goldwind strictly abides by laws and regulations and standardized documents such as the Corporate Law, the Securities Law, the Code of Corporate Governance for Listed Companies, the Rules Governing the Listing of Shares on Shenzhen Stock Exchange, and the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong, and establishes an operating mechanism comprising the Shareholders' Meeting, the Board of Directors, the Board of Supervisors, and the management team. Under the Board of Directors are the Audit Committee, the Nominating Committee, the Remuneration and Assessment Committee, and the Strategic Committee. Each committee specializes in its respective field to secure the long-term and stable development of the Company.

The Company convenes Shareholders' Meetings strictly in accordance with the regulations and requirements of the *Rules for the Shareholders' Meetings of Listed Companies*, the *Articles of Association*, and the *Rules of Procedure of Shareholders' Meetings*, engages lawyers and scrutineers to oversee the voting results on site, counts the votes of small and medium-sized investors separately for all the proposals, and discloses to the public the results of voting by small and medium-sized investors, holders of A-shares and H-shares separately, so as to treat all the shareholders equally and ensure that they are able to exercise their rights to the fullest extent.

The Board of Directors gives full play to the professional capabilities and experience of directors and engages in thorough discussions and communications regarding all proposals, alerting the management to potential risks and development opportunities in the Company's operations and investments, and offering practical recommendations. The Board of Directors consists of nine directors, including two female directors, with diversity in terms of gender, age, culture, educational background, professional experience, as well as skills and knowledge.

The Board of Supervisors examines the Company's financial status in accordance with the law and supervises the Company's internal control, risk control, information disclosure, and review of major issues. It is responsible for supervising the Board of Directors and its members. The Board of Supervisors also oversees the Company's directors and senior managers to prevent them from abusing their powers or infringing on the legitimate rights and interests of shareholders, the Company, and employees.

In 2024, the Company convened 5 shareholders' meetings, during which 25 proposals were deliberated. The Company held 11 board meetings, discussing 52 proposals including the annual report and profit distribution plans. Additionally, it conducted 6 meetings of the Board of Supervisors, 8 meetings of the Audit Committee, and 6 meetings of the Remuneration and Assessment Committee, along with 2 special communication meetings for independent directors.

Please refer to the "Corporate Governance" section of the 2024 Annual Report of Goldwind Science & Technology Co., Ltd. (A-shares: 002202) or the "Corporate Governance Report" (H-shares: 02208) for more details.

#### Risk and Compliance Management

Goldwind has consistently upheld the principles of integrity, compliance, and legal operation. The Company has established and continuously refined its risk and compliance management system to conduct comprehensive risk identification, analysis, and evaluation, and to standardize all production, operational, and management activities. Non-compliant matters are thoroughly investigated and addressed. The Company has implemented the *Group Risk and Compliance Management System*, which outlines fundamental principles, organizational structures, and responsibilities related to risk and compliance management. This system also defines the operational mechanisms for assessment, evaluation processes, supervision methods, and accountability measures associated with risk and compliance practices. Additionally, we have released the *Group Implementation Measures for Investigating Liability for Irregular Business Operations*, which clearly specifies the principles of liability assessment, including scope definition, loss determination criteria, and procedures for determining the liability. Furthermore, the *Group Audit Issue Rectification Process* has been established to delineate responsibilities related to audit issue resolution while ensuring a closed-loop rectification process that enhances internal controls and prevents the recurrence of similar issues.

The Company regularly organizes a variety of training sessions focused on compliance risks, along with awareness-raising activities aimed at enhancing employees' overall capabilities in effective risk and compliance management practices. The Company identified key personnel and sensitive positions in a regular manner. As a result, various compliance courses were developed specifically for managerial staff, along with specialized training courses covering sensitive positions related to engineering, investment, finance, and asset management. Risk and compliance training was incorporated into the mandatory orientation program for new recruits. Additionally, an internal WeChat official account named "Compliance in Operations" was established to facilitate communication on compliance matters. Various channels, such as the OA system and Goldwind Newspaper, were utilized to disseminate information related to compliance. Employees were required to sign compliance commitment letters, thereby reinforcing their awareness of organizational policies regarding risk and compliance management.



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Goldwind Science & Technology Co., Ltd. 2024 Sustainability Report #Honest and Compliant Operations

#### **Rights and Interests of Investors**

#### Information Disclosure

Goldwind has adhered to the principles of factual, accurate, complete, fair, and timely disclosure as well as strict disclosure with consistent information in both exchanges in accordance with the listing rules of Shenzhen and Hong Kong. Moreover, the Company has formulated internal documents such as the *Information Disclosure Management System* and the *Material Information Reporting Management and Accountability System* to regulate and continuously improve the process of reporting, decision-making, and disclosure on important matters. In 2024, Goldwind amended key documents such as the *Articles of Association, Rules of Procedure of Shareholders' Meetings*, and the *Listing Compliance Management Manual* in accordance with the latest laws and regulations issued by external regulators. These amendments aimed to continuously enhance the deliberation procedures and information disclosure requirements for various operating activities and significant matters. The Company also focused on optimizing its information disclosure system to ensure that all disclosure activities were conducted in a compliant and efficient manner.



#### **Investor Relations**

Goldwind, in response to the diverse needs of its investors, has established and refined a comprehensive multi-channel investor communication platform. Additionally, the Company conducts a wide range of flexible and diverse activities to promote effective communication and engagement with its investors. In 2024, Goldwind held 4 global earnings conferences in both Chinese and English, offering a comprehensive overview of its operating results and business expansion. Additionally, the Company actively participated in various activities such as earnings roadshows, analyst meetings, offline investor research, and reverse roadshows to strengthen positive interactions and enhance communication with institutional investors. Moreover, Goldwind regularly updated its official website, promptly responded to inquiries on investment hotlines, and maintained a 100% response rate on the interactive platform. By delivering high-quality investor services, the Company effectively safeguarded the rights and interests of small and medium-sized shareholders.

As communication around ESG has become increasingly active, Goldwind has organized ESG-themed communication and exchange activities. These initiatives address ESG issues that are of concern to shareholders and potential investors, while also participating in industry events related to ESG. Such efforts enhance the frequency of interactions with international investors, professional institutions, and industry organizations. Furthermore, the Company has actively developed new media platforms to convey real-time updates on policies, industry trends, and the latest developments in its business to investors. This initiative further increases the transparency of the Company's external communications. In 2024, the Company received a total of more than 1,600 investors. Thanks to its open, transparent, compliant, and efficient investor management practices, Goldwind has garnered widespread recognition in the capital markets.

#### **Returns for Investors**

The Company pays attention to the long-term and sustained returns for investors. Through steady operation and scientific management, the Company continuously improves its profitability and delivers robust operating performance to its investors. For consecutive years, the Company has adopted favorable, stable cash dividend policies that allow investors to fully enjoy the benefit of the Company's development and its continuous earnings. In 2024, the net profit attributable to shareholders of the listed company was RMB 1.86 billion, with basic earnings per share of RMB 0.42.



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#### **Business Ethics**

#### **Anti-Corruption**

2024



13

anti-fraud training sessions

3

Visits to the Beijing Anti-Corruption and Warning Education Base

2,000+ participants

receiving educational warnings

The Audit Committee under the Board of Directors leads the Audit and Supervision Department in its anti-corruption efforts. The Committee regularly reviews work reports from the Audit and Supervision Department and provides professional guidance. The Audit and Supervision Department implements anti-corruption management by establishing standards for anti-corruption conduct, ethical standards, and more. It optimizes the mechanisms for supervision, inspection, and restraint related to anti-corruption initiatives, continuously enhancing the prevention and control system. This fosters an environment where everyone is unable and unwilling to be corrupt, thus preventing the occurrence of corruption. In 2024, the number of corruption lawsuits proposed and concluded by the company is 0.

The Company has established institutional documents, including the *Group Anti-Fraud Management System* and the *Goldwind Professional Ethics and Code of Conduct*. These documents clearly define the concepts and forms of fraud and corruption, outline the work management structure and responsibilities, and specify prohibited violations. They also include procedures for reporting cases, conducting investigations, and implementing remedial measures. Based on the unique characteristics, significance, and risk levels of different business units, Goldwind develops corresponding audit strategies. These strategies include annual audits, biennial audits, or triennial audits. During these audits, particular emphasis is placed on business ethics. If any indications of violations of business ethics are identified, the Supervisory Committee will intervene to conduct an investigation.

Goldwind encourages all employees and other insiders to report any behaviors that violate integrity and self-discipline regulations. To facilitate this, the Company prominently displays the complaint hotline, dedicated email address, and physical complaint boxes across multiple touchpoints, including its official website and office premises, which allows stakeholders to easily report actual or suspected corruption. In 2024, Goldwind formulated and issued the Group Reporting and Investigation Process. Designated personnel are responsible for promptly handling reports and recording relevant information. In the event of a report or complaint, the Company will quickly inform the whistleblower and all individuals who received the report that it has been accepted. Additionally, the Company will collaborate with relevant departments and external experts to conduct investigations, actively providing updates on the investigation progress to both the parties involved and the whistleblower. The investigation team will compile a summary of findings, implement appropriate penalties in accordance with laws and regulations, and carry out necessary remedial measures. The Company has established clear provisions for the protection of whistleblowers. Relevant parties are obligated to ensure the confidentiality of whistleblower information. Any irregularities in disclosing such information or acts of retaliation against whistleblowers will be treated with utmost seriousness.

In 2024, Goldwind conducted a diverse range of extensive thematic training activities. Throughout the year, it held 13 anti-fraud training sessions and organized 3 visits to the Beijing Anti-Corruption and Warning Education Base, with more than 2,000 participants receiving educational warnings. The Company also initiated a "Declaration of Interests" program for all employees to mitigate potential conflicts of interest. Furthermore, all employees were engaged in studying and completing the "2024 Anti-Fraud and Code of Ethical Conduct Quiz", thereby fostering a clean, upright, fair, and honest business environment within the Company.

Goldwind Anti-corruption

Hotline for anti-corruption reporting: +86 (0) 10-67511888-1127 Email: audit@goldwind.com.cn

Address: Audit and Supervision Department, Goldwind Science & Technology Co., Ltd., No. 8 Boxing 1st Road, Economic-Technological Development Area, Beijing, China 100176

**Anti-Money Laundering** 

Goldwind, in accordance with relevant national laws, regulations, and regulatory requirements, has established a comprehensive anti-money laundering system tailored to its business characteristics. The Company has formulated several key documents, including the *Management Measures for Anti-Money Laundering and Counter-Terrorist Financing*, the *Management Measures for client Identification and Retention of Client Identity Information and Transaction Records*, and the *Management Measures for Reporting Large-amount and Suspicious Transactions*. These measures cover essential

areas such as customer identity verification, retention of customer identity information and transaction records, as well as the reporting of large-amount and suspicious transactions. This framework ensures that anti-money laundering efforts are carried out in a process-oriented and standardized manner, effectively establishing a strong institutional defense against money laundering.

In its business operations, Goldwind strictly implements customer identity verification requirements to accurately assess customer risk levels. The Company employs a monitoring system for suspicious transactions in conjunction with manual analysis to monitor various transaction activities. This approach enables Goldwind to achieve a closed-loop management model that incorporates "pre-entry screening, in-process controls, and post-transaction monitoring". During the reporting period, the Company faced no litigation related to money laundering, and no cases of money laundering or major violations were reported.

#### **Fair Competition**

Goldwind is committed to promoting a fair and free market competition environment. The Company strictly adheres to relevant laws and regulations, including the *Criminal Law of the People's Republic of China*, the *Anti-Unfair Competition Law of the People's Republic of China*, and the *Anti-Monopoly Law of the People's Republic of China*. To reinforce this commitment, Goldwind has established the Goldwind Professional Ethics and Code of Conduct, which includes provisions on fair competition and opposition to monopolistic practices. All stakeholders, including employees, business partners, and customers, are required to comply with relevant laws and regulations in their competitive interactions. Furthermore, Goldwind pledges to safeguard the confidential information of customers and business partners with the same level of protection as its own corporate information. In 2024, Goldwind collaborated with 11 industry peers to sign the *Self-Discipline Convention on Maintaining a Fair Competition Environment in China's Wind Power Industry*, aimed at upholding a fair competitive landscape within this sector.

## Information Security and Privacy Protection

2024



0

Information leakage, data security incidents

Goldwind strictly adheres to the Cybersecurity Law of the People's Republic of China, the Data Security Law of the People's Republic of China, the Personal Information Protection Law of the People's Republic of China, and other relevant laws and regulations. The Company has established the Group Information Security Incident and Emergency Response Management System, which standardizes various information security management processes. This framework encompasses the classification and grading of information security incidents, management principles, prevention and early warning mechanisms, incident response procedures, and emergency drills. Additionally, Goldwind has introduced the Group Implementation Norms for Emergency Handling of Information Security Incidents, which clarifies the processes for formulating, implementing, and evaluating emergency drill plans, as well as establishing response protocols for various risk scenarios. These measures significantly enhance the Company's capability to respond to information security incidents. Furthermore, Goldwind places a strong emphasis on enhancing its information security capabilities. All employees are required to participate in regular information security training which conducted once a year and sign an Information Security Compliance Agreement. Additionally, specialized information security training is incorporated into the mandatory curriculum for new employee orientation. The Company has successfully implemented an Information Security Management System (ISMS). It achieved ISO 27001 certification for the first time in 2019 and completed an upgrade to ISO 27001:2022 certification in 2024.

In terms of data security management, Goldwind has issued the *Group General Rules for Data Management*, which clearly outline the fundamental principles governing data management. These principles encompass data architecture, generation, quality, application, safety, and privacy. This framework is designed to establish an effective data governance environment. To safeguard the privacy of customers and other third parties, Goldwind adheres to a range of management requirements that include full life-cycle data management practices, cross-border data compliance, and third-party data security protocols. The Company implements various strategies such as comprehensive life-cycle security management systems, vulnerability scanning techniques, penetration testing procedures, data leakage prevention tools, and encryption methods to ensure robust protection of third-party data. Additionally, Goldwind regularly identifies its data assets and conducts comprehensive risk assessments, enabling the prompt detection of potential data leakage risks and facilitating immediate corrective actions or optimizations as needed.

In 2024, through rigorous internal and external audits, no incidents of information security compromise, data exfiltration, or personal privacy infringements were identified.



#### Climate Change Mitigation and Adaptation

Climate change is one of the most significant challenges facing human society today. In response to this crisis, accelerating green and low-carbon initiatives, fostering cooperation, and implementing proactive measures to combat climate change have become a global consensus.

Wind power, with its mature technology, low carbon emissions, environmental friendliness, and low cost per kilowatt-hour, plays a pivotal role in mitigating climate change. Goldwind, a leading global wind turbine manufacturer and provider of comprehensive wind power solutions, is committed to combating climate change. We actively promote wind power generation products and services worldwide, driving global low-carbon transformation and sustainable development. As of the end of 2024, our cumulative global installed wind power capacity surpassed 135 million kilowatts, generating approximately 287.145 billion kilowatt-hours of electricity annually. This output can reduce greenhouse gas emissions by about 238 million tons of carbon dioxide equivalent<sup>3</sup> and offset the need for 130 million cubic meters of forest resources.

## Risk and Opportunity Identification and Response

Goldwind actively practices sustainable development principles and has integrated climate change response as a key priority into its "14th Five-Year Strategic Plan". The Company places great emphasis on climate risks, encompassing both physical risks stemming from changes in climate conditions and extreme weather events, as well as transition risks arising from national carbon peaking and carbon neutrality goals, climate change policies, and energy transition initiatives. We are fully aware that while climate change presents risks, it also offers new opportunities for business growth.

The Company has identified and analyzed the potential impacts of climate change on its operations from the perspectives of both physical and transition risks. We have implemented effective measures to adapt to and mitigate the impacts of climate change on our business operations and sustainable development.

Risk and Opportunity Types	Potential Impact	Countermeasures
Physical Risks		
<ul> <li>Persistent disaster-level winds triggered by cold waves, sandstorms, intense cold air masses, etc.</li> </ul>	• The increasing frequency and intensity of extreme weather events pose significant risks to corporate operations, including disruptions to factory produc-	• The Company incorporates extreme weather risks into its product design and planning phases. Utilizing advanced high-level model simulation methods allows for precise replication of wind turbine loads and stability under typhoon conditions. Additionally, key components such as
<ul> <li>Short-duration gale-force winds and lightning strikes induced by severe convective weather (thunder- storms, squall lines, tornadoes)</li> </ul>	tion, wind turbine equipment transportation, and stable operation of wind farms, thereby escalating operational costs. In minor cases, such events may trigger wind power equipment failures and reduced power transmission efficiency; in severe cases, catastrophic incidents like turbine tower collapses could	blades and towers are designed with enhanced strength to ensure wind turbine products can withstand special environments like typhoons and thunderstorms. Furthermore, when selecting wind farm sites, factors such as the local environmental conditions, wind direction, and wind speed are thoroughly considered. In accordance with national standards, each wind turbine undergoes on-site wind condition safety and adaptability assessments, covering aspects such as structural safety, load adaptability, and component adaptability. This ensures the safe and
• Severe tropical cyclones over oceanic regions	occur, threatening personnel safety and asset integrity.	stable operation of wind turbines during extreme weather;
(typhoons, hurricanes)  • Extreme precipitation, blizzards		<ul> <li>Goldwind has developed a meteorological prediction and early warning system. This system integrates comprehensive meteorological disaster data, wind turbine status, disaster prevention capabilities, and historical disaster records to form a robust early warning analysis</li> </ul>
• Extreme heat, extreme cold		model. It enables continuous monitoring and timely warnings for each wind farm, offering full-cycle meteorological risk alerts. This enhances the turbines' resilience to adverse weather and safeguards equipment and personnel safety;
		• The Company has established a suite of emergency response plans and procedures, including the Overall Emergency Response Plan, Special Emergency Response Plan for Typhoon, Flood, and Severe Convective Weather Preparedness, and Special Emergency Response Plan for Rain-Snow-Ice Disaster Preparedness. Regular emergency drills are organized, and their effectiveness is evaluated and optimized accordingly;
		<ul> <li>Goldwind has developed the Hazardous Operations Safety Management Regulations, which prohibit hoisting operations, work at heights, and outdoor surveying during extreme weather such as heavy rain and snow. Additionally, the Environmental and Occupational Health &amp; Safety Hazard Investigation and Remediation Protocol is in place. This protocol involves conducting inspections of outdoor hazards in adverse weather and environmental conditions, implementing appropriate investigation and disposal measures to prevent potential safety accidents;</li> </ul>
		• To further mitigate risks, property all-risks insurance and business interruption insurance have been purchased. These measures are taken to offset potential losses to asset values caused by extreme weather events.
Ice accretion	<ul> <li>Ice accretion on wind turbine blades reduces power generation output and efficiency, and in severe cases, causes structural damage to the blades;</li> </ul>	<ul> <li>Goldwind has formulated the Special Emergency Response Plan for Rain-Snow-Ice Disaster Preparedness and corresponding emergency response procedures;</li> </ul>
	<ul> <li>Ice shedding from wind turbine blades heightens safety risks for on-site person- nel.</li> </ul>	<ul> <li>The Company has self-developed a meteorological prediction and early warning information system, providing wind farms with timely warnings of freezing weather. On-site personnel can prepare in advance and evacuate from dangerous areas before the arrival of freezing conditions.</li> </ul>
		echnologies such as wind turbine blade coating and heating de-icing are employed to control blade icing during the winter months.

<sup>3</sup>According to the 2024-2025 Annual Report on National Electricity Supply and Demand Analysis and Forecast released by the China Electricity Council (CEC), the national grid-connected wind power utilization hours in 2024 reached 2,127 hours.

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Risk and Opportunity Types	Potential Impact	Countermeasures
Transition Risks		
International/National climate policies	<ul> <li>The tightening international regulatory requirements on climate compliance, particularly driven by the EU's Net-Zero Industry Act and the Carbon Border Adjustment Mechanism (CBAM), will escalate compliance costs for the Company's future product exports;</li> <li>Domestically, the rollout of policies such as wind power equipment recycling, product carbon footprint management, green supply chain mandates, and eco-design requirements has increased both administrative and technical expenditures.</li> </ul>	<ul> <li>Goldwind closely monitors global climate policy and legal developments to ensure compliance in its production and operations;</li> <li>The Company has established a sustainable development strategy that integrates ESG factors throughout the entire investment lifecycle. Key objectives include energy conservation, carbon reduction, wind turbine recycling, and the development of a green supply chain. We are committed to driving the implementation of these initiatives to mitigate compliance risks.</li> </ul>
Changes in customer demands	<ul> <li>Customers are increasingly demanding green production practices, transparency in product carbon footprints, and the use of low-carbon steel. These require- ments will lead to heightened green investments by the Company in areas such as production, operations, product design, and procurement.</li> </ul>	• Goldwind stays updated on the progress of green product laws and regulations in the regions where our customers operate, enhancing communication with them accordingly. Building on our life cycle assessment of 12 wind turbine models, we are committed to continuously increasing the coverage rate of Environmental Product Declaration (EPD) certification. Leveraging our strengths in the wind power sector, we are also amplifying investments in research and development for low-carbon and low-emission wind turbines. Furthermore, we are dedicated to strengthening our personnel's capabilities in carbon footprint accounting and related competencies.
Transformation Opportunities		
New energy-related business development	• The COP28 commitment to triple global renewable power capacity and double annual energy efficiency improvements by 2030 aligns with China's accelerated implementation of the "carbon peaking and carbon neutrality" strategy, where the construction of a new-type power system is in full swing, and the new energy sectors including wind power are poised for expansive growth	• In response to market demand, Goldwind is steadily advancing its core business in the research, development, and manufacturing of wind power equipment. We are focused on improving the power generation efficiency and reliability of our wind turbines while enhancing our intelligent service capabilities. Committed to high-quality development, we continue to expand our global industrial chain footprint.
Market demand for low-carbon products	<ul> <li>Both domestic and international markets are placing increasing importance on the low-carbon attributes of products. Increasing the coverage rate of EPD-certi- fied products can help the Company meet customers' demand for low-carbon products.</li> </ul>	• Goldwind has conducted lifecycle assessments for 12 types of wind turbines and is boosting the EPD certification coverage rate. This helps analyze environmental impacts across the turbines' lifecycle, identify opportunities to enhance environmental performance at different stages, and explore ways to cut carbon emissions, thereby gradually reducing carbon footprints.  For more details, refer to the Sustainable Products section
Intelligent operations	<ul> <li>Goldwind's intelligent operation system ensures the healthy and efficient operation of new energy equipment. By increasing the average trouble-free operation time of equipment and adopting a digital asset operation manage- ment model, it helps the Company achieve cost reduction and efficiency improvement in production and operation activities.</li> </ul>	<ul> <li>Goldwind has established a mature digital platform covering functions such as meteorological disaster warning, intelligent operation and maintenance, the WindExpert Platform, and power prediction operation management;</li> <li>The Company has formed a smart service network both domestically and internationally, enabling the timely provision of on-site operation and maintenance, spare parts supply, and optimization of component maintenance and technical upgrades;</li> <li>The Company has successfully implemented the industry's first unmanned wind farm benchmark project. Through the unmanned wind farm platform system, the centralization of operation and maintenance personnel in specific areas and unmanned operation on the station side have been achieved.</li> </ul>
Circular Economy	<ul> <li>The National Development and Reform Commission (NDRC) and other departments issued the <i>Guiding Opinions on Promoting the Recycling of Decommissioned Wind Power and Photovoltaic Equipment</i>, focusing on driving technological and business model innovations in the recycling of decommissioned wind power equipment;</li> <li>As wind turbines enter the decommissioning phase, Goldwind explores cost-effective recycling technologies to cut operational costs and unlock new business potential.</li> </ul>	<ul> <li>The Company has built a comprehensive turbine recycling system, featuring a national "collection, transfer, and transportation" network, refurbished equipment sales channels, and a used turbine recycling and remanufacturing chain;</li> <li>Goldwind continues to advance research on recycling technologies for wind turbine resources, including blades, and enhances the recycling of logistics packaging materials such as pallets.</li> <li>For more details, refer to the Resource Recycling section</li> </ul>

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#### and Carbon Neutrality

Carbon Emission Reduction Goldwind persists in promoting its carbon management initiatives. In 2024, following a comprehensive review of the Company's carbon emission data, verification was carried out and completed by a professional third-party certification body, China General Certification Center (CGC)<sup>4</sup>. The Company's greenhouse gas emissions over the past three years are presented as follows:

#### GHG Emissions (Scope 1 & Scope 2 - Geography-Based)<sup>5</sup>

Indicator	Unit	2024	2023	2022
Scope 1	tCO₂e	17,334.13	20,006.67	18,746.01
Scope 2	tCO₂e	181,439.68	197,323.47	184,983.71
Total emissions	tCO₂e	198,773.81	217,330.14	203,729.72

#### GHG Emissions (Scope 1 & Scope 2 - Market-Based)

Indicator	Unit	2024	2023	2022
Scope 1	tCO₂e	17,334.13	20,006.67	18,746.01
Scope 2 <sup>6</sup>	tCO₂e	1,125.20	1,193.18	1,251.27
Total emissions	tCO₂e	18,459.33	21,199.85	19,997.28
GHG emissions intensity per MW	tCO <sub>2</sub> e/MW	0.1594	0.1864	0.1896
GHG emissions intensity per cubic meter of water treated	tCO₂e/10k tons	0.0073	0.0088	0.0152

Goldwind is committed to continuously optimizing its carbon emission data collection and accounting system while enhancing the capacity building of its personnel. The independently developed "Goldwind Carbon Account Platform" system can regularly, efficiently, and accurately collect carbon emission data, enabling real-time monitoring of the Company's dynamic changes in carbon emissions and the distribution of emissions. In November 2024, Goldwind Carbon Account was certified by BV (Bureau Veritas) with the issuance of the Methodology Verification Statement for Greenhouse Gas Accounting Platform, which validates its methodology for quantifying organizational-level Scope 1 and Scope 2 GHG emissions in compliance with ISO 14064-1:2018 and the GHG Protocol Corporate Accounting and Reporting Standard.

In response to the national carbon peaking and carbon neutrality goals, Goldwind has increased its investment in energy-saving technological transformations in recent years. The Company has implemented comprehensive energy-saving and consumption-reduction measures, achieving notable results in energy conservation and emission reduction. In 2024, the Company further reviewed its energy consumption patterns and tapped into its energy-saving potential. A total of over 50 energy-saving and carbon-reduction measures were implemented, including the construction of photovoltaic facilities at new water plants and wind farms, the development of wind power projects within the park, precise aeration techniques, and the replacement of traditional vehicles with new energy vehicles. These measures are expected to reduce electricity consumption by approximately 6.55 million kilowatt-hours (kWh) per year and carbon emissions by around 3,949 tons annually.

#### Primary Energy Conservation and Low-Carbon Measures Implemented in 2024

#### **Electricity Saving**

Wind farm photovoltaic construction

Water plant photovoltaic construction

Retrofitting of aging blower in water treatment system

Optimization of aeration method in water treatment (aeration retrofitting, Precise aeration, etc.)

Wind farm lighting fixture retrofitting (led-based), station temperature control optimization, and office & living energy consumption management optimization, etc.

**Estimated Annual Electricity Savings** 

6.55 million kWh/year

#### **Gasoline Saving**

Replacement with new energy vehicles

Estimated Annual Gasoline

156 tons/year

As a provider of comprehensive clean energy, energy-saving, and environmental protection solutions, Goldwind leverages its unique advantages. With its mature green power product and service system and extensive practical experience, the Company actively promotes the construction of green wind farms and zero-carbon factories internally. In 2024, Goldwind consumed approximately 714 million kWh of electricity. Notably, 378 million kWh was generated from on-site wind power and photovoltaic facilities, while 63 million kWh was sourced from market-traded green electricity. Green electricity accounted for 61.8% of the Company's total electricity consumption.

Since 2022, Goldwind has achieved carbon neutrality at the operational level (Scope 1 and Scope 2). In 2024, Goldwind reinforced its commitment to sustainability by purchasing carbon credits, thereby achieving carbon neutrality for its operational activities (Scope 1 and Scope 2) in addition to its ongoing energy-saving efforts and utilization of green electricity. The Company also obtained a professional certification from the China General Certification Center (CGC), which is authorized by the China National Accreditation Service for Conformity Assessment (CNAS).

The Company is actively progressing with its inventory assessment of Scope 3 emissions. These Scope 3 greenhouse gas emissions primarily originate from several key areas, including the procurement of raw materials and services, fixed assets, employee business travel and commuting, logistics and transportation, as well as the final disposal of wind turbine products. The inventory data for the past three years is presented below:

<sup>&</sup>lt;sup>4</sup>This center has been authorized by the China National Accreditation Service for Conformity Assessment (CNAS).

Goldwind conducts greenhouse gas accounting in accordance with the requirements set forth in the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard as well as the ISO 14064-1:2018 Greenhouse gases—Part 1: Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals. The emission factors applied are based on relevant requirements on technical documents such as the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and its 2019 Refinement, along with the Ministry of Ecology and Environment's Notice on the Reporting and Verification of GHG Emissions for Selected Key Industry Enterprises from 2023 to 2025.

The decrease in Scope 2 emissions is due to the direct purchase of green electricity and the purchase of green electricity certificates.

#### **GHG Emissions (Scope 3)**

Indicator	Unit	2024	2023	2022
Scope 3	10ktCO₂e	672.11	613.37	440.58

In Scope 3, Goldwind's largest emissions are attributed to the procurement of raw materials and services, which accounts for approximately 85.65%, aligning with the Company's business characteristics. Due to an increase in the Company's business volume, the total Scope 3 carbon emissions in 2024 have risen by 9.58% compared to 2023.

#### Goldwind's Scope 3 Emission Categories and Their Respective Emissions for 2024

Emission Category	Emission (tCO₂e)	Emission Ratio (%)
Upstream - Purchased Raw Materials & Services	5,756,558.63	85.65%
Upstream - Fixed Assets	398,733.87	5.93%
Upstream - Energy Related	11,588.35	0.17%
Upstream - Waste	77,499.72	1.15%
Upstream - Transportation & Distribution	170,970.89	2.54%
Upstream - Business Travel	15,935.63	0.24%
Upstream - Employee Commuting	67,902.53	1.01%
Downstream - Transportation & Distribution	132,271.30	1.97%
Downstream - Product Use	979.71	0.01%
Downstream - Product End-of-Life Disposal	88,709.36	1.32%
Total	6,721,149.99	100.00%

#### Green Production and Operations

Upholding the mission of "Innovating for a brighter tomorrow", the Company is steadfast in its commitment to transforming into a growth-oriented enterprise focused on resource conservation, environmental friendliness, and green low-carbon development. As a pioneer in green development, Goldwind attaches great importance to the environmental impact of its operations. The Company strictly complies with the related domestic laws such as the *Environmental Protection Law of the People's Republic of China* as well as relevant laws and regulatory requirements of the locations where its overseas wind farms operate, and has formulated a number of internal policies for full life- cycle management. Goldwind is dedicated to continuously improving its environmental capacity framework. In line with the requirements of ISO 14001, the Company conducts both internal and external audits of its environmental management system at least annually. This rigorous process ensures that all relevant operational areas comply with certification standards. As of the end of 2024, building on the existing ISO 14001 Environmental Management System Certification, which already covers its core business, Goldwind expanded the scope of certification to include hybrid tower, energy storage, and energy and carbon business.

#### **Utilization of Energy and Resources**

The main energy types used by the Company in the production and operations are electricity for office and production, gasoline for business vehicles, diesel for construction vehicles, and natural gas and liquefied petroleum gas for staff catering, among which electricity is the primary energy consumed. Water is used mainly in such scenarios as office work and living, wind farm construction, and water utility related services. During the development and construction of wind farms, only a minimal amount of water is utilized for activities such as construction, dust suppression, and landscaping. In terms of water utility services, water is primarily employed in technological processes, such as the preparation of chemical agents.

#### Amount and Density of primary energy and resource usage<sup>7</sup>

Indicator	Unit	2024	2023	2022
Total electricity consumption	100 million kWh	7.14	6.99	6.87
Self-generated electricity consumption of wind and solar	100 million kWh	3.78	3.55	3.64
Gasoline	kL	3,213.63	3,809.33	2,958.10
Diesel	kL	1,905.28	1,974.01	1,648.69
Liquefied petroleum gas	ton	107.56	134.99	160.36
Natural gas	10km³	66.53	77.62	77.86
Overall energy consumption per MW	ton of standard coal/MW	0.55	0.54	0.59
Overall energy consumption per water treatment capacity	ton of standard coal/10k tons	0.46	0.48	0.46
Water consumption	10k tons	81.98	89.59	82.85
Water consumption per capita	ton/capita	44.80	51.11	55.81
Water use intensity for production and operations	ton/ thousand tons of water treatment capacity	0.48	0.50	0.70
Packaging - wood	ton	641.51	620.68	887.21
Density of wooden packaging usage	ton/unit	0.065	0.068	0.28

Goldwind has gradually improved its energy management system building in recent years, with comprehensive and systematic efforts to promote internal factory energy audits, energy management system certification, green factory certification and PV construction. By the end of 2024, 10 plants of the Company have already established their energy management systems and passed the ISO 50001 energy management system certification; 4 plants have obtained the national certification for green factories, and 4 plants have obtained the provincial certification for green factories. Taking into account the features of each business segment, the Company carries out site-specific planning and actively develops PV construction at manufacturing assembly plants, water works and wind farms to increase the proportion of green power usage. By the end of 2024, Goldwind had installed PV power generation facilities in 10 of its manufacturing plants, among which one plant was equipped with a smart wind power microgrid. Additionally, PV power generation facilities were installed in 18 water treatment plants and 19 wind farms.

The Company strictly follows relevant laws and regulations including the Water Law of the People's Republic of China and the Water Pollution Prevention and Control Law of the People's Republic of China, strengthens the water conservation management throughout the water intake and consumption processes, and enhances its employees' awareness and ideas of water conservation. In 2024, we actively carried out various forms of water recycling and reuse at our wind farms and water treatment plants, such as utilizing water for landscape watering and preparation of chemical agents, and increased water use efficiency through the renovation of the domestic water power system and the strengthening of domestic water consumption management.

The energy consumption calculation of various energy and resources refers to GB/T2589-2020: General Rules for Calculation of the Comprehensive Energy Consumption.

#### **Pollutant Emissions**

In line with regulations such as the Environmental Protection Law of the People's Republic of China and the Water Pollution Prevention and Control Law of the People's Republic of China, the Company's wastewater treatment plants are classified as key wastewater discharge entities by the environmental protection authorities. Each wastewater treatment plant conducts environmental impact assessments and environmental protection acceptance upon completion, in accordance with the Environmental Impact Assessment Law of the People's Republic of China and the Regulations on Environmental Protection Management of Construction Projects. All wastewater treatment plants possess the necessary approvals, including EIA approvals, Environmental Protection Completion Acceptance Certificates, or Self-conducted Acceptance Reports, as well as Pollutant Discharge Permits. Goldwind has established an operational management platform that provides timely alerts regarding compliance risks and various data submission requirements related to environmental protection. This system includes reminders for the expiration of Pollutant Discharge Permits, ensuring that all permits remain valid throughout their designated periods. The company's primary investments in environmental governance and protection during 2024 were allocated to environmental monitoring, facility upgrades and maintenance, and public awareness campaigns, with total expenditures reaching RMB 53.6051 million. The company paid approximately RMB 212,300 in environmental protection taxes throughout the year.

For detailed information on Goldwind's industry emission standards for its water utility services, the specific circumstances of pollutant emissions involved in its production and operating activities, and any administrative penalties received due to environmental issues during the reporting period, please refer to the "Material Environmental Issues" section in the 2024 Annual Report of the Company (A-share: 002202.SZ).

#### Waste Product Collection and Disposal

Goldwind generates relatively little waste during the processes of wind turbine manufacturing, wind farm construction, and operation and maintenance. General solid waste mainly includes construction waste produced during wind farm construction, as well as domestic waste and food waste generated in daily office operations. Hazardous waste mainly consists of waste organic solvents and wastes containing organic solvents, waste mineral oil and wastes containing mineral oil, organic resin-based wastes, and other types of waste. In compliance with laws and regulations, the Company has formulated the *Regulations on the Management of Wastewater, Emissions, Noise, and Solid Waste*, which clearly defines the standards for waste management. As part of its marine operations, Goldwind requires service vessels to carry a Safety and Environmental Compliance Certificate for Seagoing Ships. Additionally, these vessels must develop emergency response plans for marine environmental pollution incidents and conduct regular drills to test these plans. Records of these drills are maintained for inspection purposes. Pollutants generated by vessels at sea are handled by specialized disposal units. The Company retains contracts or agreements signed with the respective disposal units, ensuring that disposal records are kept for a minimum of two years.

#### **Emissions and Density of primary waste**

Indicator	Unit	2024	2023	2022
Wind farm construction waste	ton	249.83	268.61	397.89
Wind power business hazardous waste	ton	67.11	83.25	73.95
Hazardous waste generation per MW wind turbine production unit	ton/MW	0.0019	0.0035	0.0067

The Company implements the recycling of general solid waste generated from engineering construction in accordance with the national standard *Technical Code for Recycling of Construction and Demolition Waste (GB/T 50743-2012).* In 2024, the recycling rate of construction waste in the Group's wind power business reached 100%.

In terms of hazardous waste management, the Company developed the *Environmental Reduction Goals Action Plan*. This initiative involved collaboration across different business segments to set hazardous waste reduction targets and implement the associated measures. Key strategies include the implementation of a special rectification action for hazardous waste based on the "Three Stricts" principle—strictly preventing risks, strictly managing processes, and strictly controlling total amounts. Through these measures, Goldwind ensures that all stages of hazardous waste management—including generation, collection, storage, transfer, and disposal—are refined, standardized, and compliant with regulations. In 2024, 100% of hazardous waste was disposed of in a compliant manner.

To standardize the discharge of waste in the production process, the Wind Power Industry Group subordinate to the Company issued the *Environmental Pollution Factor Management Regulations of the Wind Power Industry Group* in 2024. This document regulates the requirements for registering general industrial solid waste and hazardous waste in various aspects of the accounting records and the provisions for their compliant disposal. In 2024, each factory implemented diverse hazardous waste reduction initiatives suited to their business context, such as enhancing packaging and managing hazardous waste-contaminated materials. These actions effectively decreased the production of hazardous waste per MW of wind turbines.

The Company collaborates with material suppliers to enhance the packaging of lubricating grease. This includes adding sealing bags inside the original grease drums to minimize hazardous waste generation. Additionally, replacing traditional iron drums with larger tonne drums for lubricating oil packaging reduces the overall volume of packaging materials. For chemical substances that are prone to solidification, more stringent sealing and preservation methods are adopted to prevent material failure, thereby reducing waste and lowering hazardous waste generation. Additionally, for reusable chemicals, the Company has made improvements in processes and equipment o increase the allowable number of reuse cycles during their usage. This approach aims to reduce the generation of hazardous waste by minimizing the overall consumption of chemicals.

#### Hazardous Chemicals Management

The Company has established a comprehensive hazardous chemicals management system that includes material audit management, identification and assessment of potential hazards, evaluation and early warning for risk management operations, emergency management and response, as well as the formation of a dedicated safety management organization. Additionally, the implementation of corresponding safety management information systems and risk management mechanisms enables comprehensive control over hazardous chemicals that is process-oriented, inclusive of all personnel, dynamic, and information-driven.

To govern the full life-cycle management of chemicals effectively, prevent chemical accidents or incidents, ensure employee safety, and minimize environmental pollution, the Company has formulated the *Regulations on the Safety Management of Hazardous Chemicals*. These regulations provide guidance for all activities related to chemical procurement, use, storage, and disposal across the organization.

The Company has formulated the Guidelines for the *Selection of Chemicals for Wind Turbines*, which stipulates the classification, selection principles, identification, and substitution of harmful chemicals, and preventive measures against chemical hazards for wind turbine chemicals. In order to select chemicals more safely in the wind turbine design and production, the Company has sorted out its list of hazardous chemicals, and identified and classified the hazards of these listed chemicals, thus guiding the use of chemicals. To further cut down on the emissions of volatile organic compounds (VOCs) during the production process and to facilitate the replacement of solvent-based materials in chemicals, the Goldwind's manufacturing plants have substituted the solvent-based cold spray zinc employed in wind turbine production with water-based alternatives. This not only reduces the emissions of VOCs during the production process but also mitigates the risk of employees developing occupational diseases.



#### **Resource Recycling**

#### Wind Turbine Recycling

With years of experience in wind energy research and manufacturing, Goldwind has gradually established a wind turbine recycling and reuse system, and has set up a nationwide recycling network of "collection, transfer and transportation". Leveraging on its internal and external resources, the Company has established sales channels for refurbished equipment, forming a closed loop of obsolete wind turbine recycling and re-manufacturing. Goldwind possesses the capability to repair and remanufacture over 200 types of wind power components. Additionally, the Company has independently developed and designed more than 30 system-level inspection and maintenance platforms, successfully applying for 24 national patents. In the field of manufacturing technology for electrical control components, our "Wind Turbine Converter Maintenance Capability Evaluation" has achieved a five-star certification from the China General Certification Center (CGC).

Goldwind has established a subsidiary that is qualified for renewable resource recycling. Currently, there are three recycling directions for decommissioned wind turbines, namely, reapplication of complete wind turbines, remanufacturing of components, and disposal of scrap.

#### Reapplication of complete wind turbines

The Company maximizes the residual value of wind turbines by strategically repurposing them in various applications, including energy-intensive industrial parks, towns, training platforms, and carbon-neutral parks.

#### Disposal of scrap

For solid waste with high residual value (towers, cables, and transformers), solid waste with low residual value (electrical components and structural components), and blades, among others, we follow the principle of solid waste reduction, recycling, and harmless treatment, to maximize their residual value and revenues.

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#### Remanufacturing of components

Core components of the wind turbines, such as gearboxes and generators, are recovered through remanufacturing processes and subsequently utilized as replacements in the after-sales maintenance and operations & maintenance (O&M) markets. This approach not only fosters resource reuse but also maximizes the residual value of these components while significantly reducing O&M spare parts costs for our customers. Based on the recycling needs for large components and spare parts, we further classify and reuse those remanufactured components, leveraging on the existing repair capabilities of large components and electronic control components in the remanufacturing product line to increase the residual value of the components.

The recycling of decommissioned wind turbine blades has long posed a significant challenge within the wind power industry's efforts toward circular economy practices. In 2024, Goldwind launched the development of its first GWBD-A recyclable blade, which boasts over 97% recyclable materials in its composition. This innovative blade facilitates the green recycling of all components, including the blade shell, spar caps, shear webs, and blade root sections, effectively addressing the longstanding issue of blade recycling at its source. The GWBD-A blade has successfully undergone all necessary functional tests, such as static load testing and flapwise and edgewise fatigue testing along with component-level degradation verification. It is now poised for mass production. In December 2024, Goldwind entered into a significant cooperation agreement with Swancor Advanced Materials and Sinoma Blade titled "Joint Cooperation Agreement on Promoting Green Circular Economy and Recyclable Utilization of Comprehensive Wind Turbine Resources". This collaboration aims to deepen efforts in green recycling and reusable utilization within the wind turbine resource sector, thereby advancing sustainable development in the wind power industry.

#### Logistics Packaging Recycling & Reuse

implement a recycling program for the metal pallets used in the production of wind turbine components, including nacelles, rotors, and drive trains. This initiative has successfully achieved the recycling of pallets for nacelle structural parts, electric gears in transmission chains, bearing housings, casings, and main shaft transportation, etc. In parallel with these efforts, Goldwind has implemented process reforms in collaboration with manufacturers for wooden pallets used for components such as hubs and bases. These reforms focus on optimizing pallet quality and dimensions, resulting in a reduced usage of wooden pallets and a corresponding decrease in resource consumption. During the transportation of large components, the Company has replaced some wooden tooling with iron counterparts. This substitution not only reduces the environmental impact associated with the use of wood but also significantly increases the recyclability of the tooling.

Goldwind works in collaboration with the technical departments of its partner manufacturers to

### Ecological and Environmental Protection

The Company strictly follows domestic and international laws and regulations such as the *Law of the People's Republic of China on Environmental Impact Assessment* and the *Regulations on the Administration of Construction Project Environmental Protection*, extending the concept of eco-protection across the entire project life-cycle, with a number of initiatives taken to deepen the eco-environmental protection of project sites.

During the design, development, construction, and operation phases of wind farms, Goldwind has established a sound system of ecological environmental protection regulations. This system encompasses regulations such as the *Regulations on Environmental Protection and Soil and Water Conservation Management* and the *Management Measures for Soil and Water Conservation Facilities and Environmental Protection Acceptance upon Completion of Construction Projects upon Completion of Engineering Projects*. From the entire lifecycle of wind farm development, design, construction, to operation and maintenance, the system conducts systematic management in various aspects. These aspects include the management models for environmental protection and soil and water conservation, management responsibilities, risk identification and control, accident investigation and handling, assessment, rewards, and penalties, supervision, inspection, and improvement, environmental information management, as well as investments in environmental protection and soil and water conservation.

#### **Biodiversity Protection**

The Company has formulated measures to address biodiversity protection in the process of project development, construction and operation, with a focus on the impacts of habitat loss, ecosystem degradation and fragmentation, invasive alien species, overexploitation, hydrological change, eutrophication and environmental pollution on biodiversity.

In light of such requirements, the Company has identified the impacts of wind farms on biodiversity during their development, construction and operation, and formulated corresponding countermeasures.



#### Onshore wind farm

#### Impact on biodiversity

Wind farms can have direct or indirect impacts on biodiversity throughout their construction, operation, maintenance, and decommissioning phases. Infrastructure such as transmission lines, meteorological towers, substations, roads, and lighting can also affect biodiversity. These impacts may include bird and bat fatalities due to collisions; bat deaths caused by potential barotrauma; disruption of wildlife migration patterns; habitat conversion and degradation; and interference with the daily activities of bats and birds (e.g., their movement from feeding areas to roosting or breeding sites).

#### Countermeasures

#### DURING THE SITE SELECTION AND DEVELOPMENT PHASE OF WIND FARMS

the Company implements a proactive approach to address biodiversity concerns. In the macro site selection process, early screening for biodiversity issues is conducted to determine if the project is adjacent to areas with high biodiversity value. In the micro site selection phase, comprehensive biodiversity surveys are carried out within the wind farm site area to gather baseline information on local biodiversity. When processing approval documents related to environmental assessments and soil conservation measures, adjustments are made to turbine locations in cases where projects may encroach upon nature reserves or affect rare species or habitats in areas prone to soil erosion.

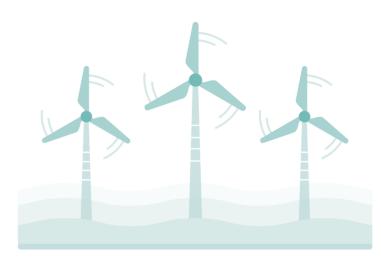
#### → DURING THE WIND FARM CONSTRUCTION PHASE

the Company has established a mechanism for reviewing and confirming the locations of wind turbines to ensure that all risk points that pose threats to biodiversity are avoided. It is prohibited to construct artificial landscapes within wind farms that attract birds and bats, such as water bodies, roosting or nesting areas, newly established feeding areas, transit areas, and habitats.

#### → DURING THE O&M OF WIND FARMS

biodiversity monitoring has been carried out to protect the distribution of wildlife, birds and plants through such initiatives as protecting the distribution of plants and properly treating household waste, so as to promote the harmony between man and nature.

#### Offshore wind farm



#### Impact on biodiversity

With the growing trend of scaling up offshore wind power development, the scale of offshore wind farm construction has increased significantly, leading to more pronounced impacts on the marine ecological environment. The noise and vibration generated during the transportation of unit components can adversely affect fish hearing and behavior. The construction and installation processes may also harm marine water quality, seabed topography, and marine organisms—potentially causing damage to coral reefs and seagrass beds. Key activities that impact marine ecosystems include underwater piling for foundations and laying submarine transmission cables. Additionally, during operation, the rotation of wind turbine blades can affect bird behavior by disrupting their perching or migration patterns or even resulting in collisions.

#### Countermeasures

#### → DURING THE TRANSPORTATION STAGE OF UNIT COMPONENTS

the Company mitigates negative impacts on the marine ecological environment by implementing strict controls on pollutant emissions from transportation and lifting vessels. Reasonable transportation routes are formulated to avoid existing marine protected areas and low-noise, low-vibration transportation methods are adopted to further minimize environmental disturbances. Prior to the shipment of offshore units, the Company utilizes digital technology to meticulously plan transportation routes that avoid fishery farming areas and marine protected zones. Additionally, carriers with Environmental Management System Certification are selected to ensure compliance with environmental standards. The Company mandates that these carriers use vessels meeting emission requirements relevant to the maritime areas traversed by their routes, thereby minimizing potential environmental harm. During transportation, the Company employs shock-absorbing pads and reduces vessel speed to mitigate noise and vibration impacts on marine life. It is strictly prohibited to discharge waste gases or oil residues into the sea during this process.

#### → DURING THE CONSTRUCTION PHASE OF OFFSHORE WIND FARMS

Goldwind adopts sophisticated construction methods. Additionally, leveraging digital simulation technology and optimizing highly time-consuming processes, the Company significantly shortens the hoisting time. This helps to avoid damage to the seabed topography and marine organisms associated with repeated, large-scale, and prolonged construction activities. The Company places great emphasis on minimizing the impact of construction waste and domestic refuse on the marine ecological environment. Strict restrictions are enforced against random disposal of waste to prevent any adverse effects on ecosystems, requiring that all waste be removed from sea areas for appropriate treatment and disposal.

#### → DURING THE OPERATION OF WIND FARMS

the Company implements an intelligent monitoring system that establishes a comprehensive air-sea 3D monitoring network. This system employs hundreds of intelligent sensors and video surveillance distributed throughout the turbines to facilitate real-time monitoring of the activities of birds and marine organisms in proximity to the turbines. This proactive approach aims to minimize any negative impacts that wind turbine operations may have on local biological populations. During the operation of wind turbine units, bird deterrent devices are installed at the leading edges of each turbine to prevent seabirds from being harmed by the rotating blades. This proactive measure effectively protects seabirds from collisions with the blades during flight, thereby reducing the risk of potential injuries.

In the future, the Company will continuously promote the sustainable development of biodiversity in accordance with laws and regulations on the impact of wind turbines on biodiversity, and enhance the protection of biodiversity throughout the life cycle of project development, construction and operation and maintenance.



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#### Sustainable Industrial Chain

Goldwind integrates the concept of sustainable development into the whole industrial chain, from R&D and design, procurement, manufacturing, installation, operation, and maintenance to after-sales services, and guides its suppliers to honor their environmental and social responsibilities, thereby boosting the transformation of the entire industry towards sustainable development.

#### Sustainable Supply Chain Management

Goldwind continuously improves its supply chain management system to identify and mitigate supply chain risks, ensuring the sustainable development of the supply chain. In 2024, the Company integrated the *Group Supplier Qualification Management System* and *Group Qualified Supplier Evaluation Management System* into a unified Group Supplier Management System, incorporating enhanced provisions for supplier profile change management, corrective actions/rewards & penalties/exit/blacklist management. Additionally, the *Group Supplier Management Measures* was issued, standardizing the implementation standards and basic requirements for the full lifecycle management of suppliers, covering aspects such as registration management, data maintenance, development access, performance evaluation, and status adjustment.

The Company requires that new suppliers undergo a comprehensive onboarding process before being included in the list of qualified suppliers. This process includes supplier development, document review, inspections, certification scoring, product trial production, small-batch verification, and final product certification scoring. We conduct regular evaluation and assessment of suppliers that have been included in the scope of qualified suppliers. We objectively and impartially evaluate these suppliers from multiple dimensions, such as quality, delivery, technology, finance, legal affairs, and service, in order to assess the comprehensive capabilities of the suppliers. Suppliers demonstrating excellent overall performance receive rewards, while those with inadequate performance are managed through corrective actions, penalties, or removal from the approved supplier list if necessary.

To enhance risk management within its supply chain management processes, Goldwind has implemented self-inspection standards for supply chain procurement compliance in 2024. We benchmark against the 46 inspection items of procurement management and stakeholder management, conducts self-inspections to identify risks, proposes targeted rectification measures, and avoids potential risks in supply chain management.

#### Responsible Procurement

Goldwind fully respects the legitimate rights and interests of suppliers during their cooperation. When developing contract templates, the terms are designed to ensure that suppliers, as Party B, possess the rights related to information access, supervision, and participation as mandated by law. During contract execution, strict adherence to the agreed-upon terms is maintained to effectively safeguard the rights and obligations of both parties.

The Company has implemented anti-corruption measures within its supply chains. During the registration phase, suppliers are required to sign a Transparent Cooperation Commitment Letter to uphold ethical standards and maintain a positive social atmosphere while preventing potential fraud or corruption in economic activities. This commitment letter also establishes a channel for suppliers to report any violations or illegal acts committed by Goldwind employees, fostering a healthy cooperative environment built on mutual oversight. Furthermore, Goldwind has established a blacklist mechanism set forth in the *Group's Supplier Management System*, clearly stipulating that improper competitive practices, such as bribing Goldwind's employees, will result in inclusion on this negative behavior list. Suppliers placed on this blacklist are prohibited from collaborating with the entire company during the specified duration.

To enhance digital supplier management capabilities, Goldwin has established a lifecycle supplier management platform to improve overall efficiency and compliance while providing an open online platform that promotes transparency with suppliers. In 2024, the platform expanded its existing management functions, which include supplier registration, onboarding, evaluation, appeals, rectification, withdrawal, and sustainable development, by integrating a procurement sourcing function. This enhancement enabled comprehensive digital management of the procurement process, from identifying procurement needs and conducting evaluations to determining pricing and finalizing contracts. Furthermore, new features for supplier information notifications and feedback have been introduced, ensuring that interactions with suppliers are now fully digitized and visualized. Since the platform's launch through to the end of the reporting period, no complaints or suggestions regarding violations of fair and equitable cooperation principles with suppliers had been received.

#### Supplier Social Responsibility Management

Goldwind continues to promote the social responsibility management scheme of the supply chain. By constantly optimizing the system of supplier social responsibility management, conducting internal and external social responsibility audits, and strictly implementing corrective measures, Goldwind guides its suppliers to improve their own management and lower their social responsibility risks.

In 2024, the Company developed and published the Group Supplier Social Responsibility Management Measures, which detail the principles, indicators, requirements, and evaluation procedures for assessing supplier social responsibility. The evaluation categories for supplier social responsibility management are classified into three types: zero-tolerance issues, primary issues, and general issues. The evaluation indicators cover various aspects including laborer rights and interests, health and safety, environmental protection, business ethics, responsible procurement and recycling practices, management systems, and HSE management at project sites (factories). Each indicator identifies specific zero-tolerance issues that must be addressed. These include the presence of forced labor, use of child labor, inhumane treatment of workers, occurrences of fatalities within a year, incidents of environmental pollution events as well as cases related to corruption or bribery. If zero-tolerance issues are identified with a supplier, the Company will suspend the development of this supplier or terminate cooperation with this existing qualified supplier. If primary issues are detected, the supplier must submit a root cause analysis report and complete rectification within a specified timeframe. For general issues, the supplier may address rectification based on its circumstances. Supplier evaluation results are classified into four grades: A through D. Suppliers rated A. B. and C are subject to evaluations at varying frequencies, while those rated D are disqualified from further cooperation.

Based on the results of supplier social responsibility audits conducted in 2022 and 2023, the Company assessed the varying levels of social responsibility risk among its suppliers and formulated its supplier social responsibility audit plan for 2024. In 2024, the Company engaged an independent third party to conduct social responsibility audits for 85 wind turbine component suppliers. Among those audited, 83 were rated as Grade A (representing 97.6%), while 2 were rated as Grade B (representing 2.4%). Notably, no unqualified suppliers were identified during this audit process, and all primary issues have been successfully addressed and rectified. The remaining major suppliers not included in the annual audit plan have all provided social responsibility audit reports from the past three years, with outstanding results for the audits conducted in 2022 and 2023. As a result, the Company has maintained a 100% social responsibility audit rate for major wind turbine component manufacturers.



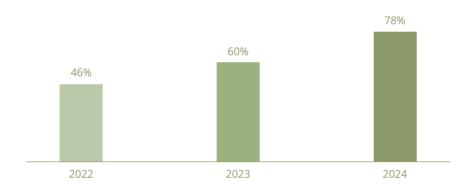
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#### Green Supply Chain

Since 2016, Goldwind has pioneered the industry through its "Green Supply Chain" initiative, driving green and low-carbon transformation across the entire industrial chain. The Company has consistently focused on system development, audit and evaluation, promotion and incentives, and increased green electricity utilization, leading the industry's low-carbon transition.

In 2024, the company updated and released the *Green Supplier Assessment Standards* and *Supplier Green Electricity Utilization Evaluation Guidelines*, ensuring corporate standards actively align with the latest national policy requirements. The organization achieved 100% coverage of green audits for core component suppliers of wind turbine systems. Notably, Tier 4 & 5 suppliers demonstrating optimal performance increased by 18% year-on-year, while Tier 3+ suppliers improved by 24% compared to previous cycles. Concurrently, the company conducted comprehensive training sessions on these sustainability frameworks for partnered suppliers, systematically enhancing their green production awareness and low-carbon operational capabilities.

#### Proportion of green electricity produced by major suppliers of Goldwind's products



The Company actively influences and encourages supply chain enterprises to utilize renewable resources such as green electricity, progressively increasing the coverage of green electricity and the proportion of green electricity used in the production of Goldwind products each year. In 2024, the major suppliers of Goldwind used 78% of green power for manufacturing Goldwind products. The Company prioritizes suppliers with high green electricity usage in procurement and offers preferential policies to incentivize further increases in green electricity consumption.

Goldwind leverages its "Three-side Carbon Reduction and One Platform" strategy to maximize green electricity resources. On the supply side, it delivers zero-carbon energy sources, including wind and solar power. On the consumption side, it offers optimized energy management solutions, such as electrical energy storage and pumped hydro storage. On the trading side, it provides carbon management services, including green electricity trading and carbon trading. These initiatives aim to increase green electricity usage across the industrial chain while reducing greenhouse gas emissions. In 2024, Goldwind provided green electricity solutions, including wind power, photovoltaic power, energy storage, green electricity trading, and green certificate trading to over 30 suppliers. These initiatives were designed to facilitate the sustainable development of the industrial chain.

## Supporting the Development of the Industrial Chain

Goldwind, as a core player in the wind power equipment supply chain, integrates its leading domestic and global expertise in wind energy. The Company actively collaborates with industry stakeholders to explore pathways for technological advancement and promote sustainable development throughout the industrial chain.

#### Patent for Wind Turbine Yaw Slip Rings Enhancing Supplier Technolog



To address challenges associated with traditional wind turbine twisted cables, such as structural damage and cable wear resulting from sagging and torsion, Goldwind developed a large-scale "Rotating Electrical Energy Transmission Device". This innovation allows for the secure installation of both nacelle cables and tower-mounted cables, effectively resolving issues related to unsecured cable configurations. In April 2024, this technology was selected as one of the "Ten Typical Cases of Patent Industrialization" by the CNIPA. Later that year, in November, it was also listed among the "Typical Cases of China's Green Technology Innovation in 2024" by the Patent Protection Association of China.

The Company actively promotes the practical application of this patented technology. By licensing the yaw slip ring technology to multiple suppliers, it has significantly enhanced the suppliers' technological capabilities. This initiative not only drives technological innovation within the industry but also plays a crucial role in advancing energy conservation, emission reduction, climate change mitigation and adaptation, and power structure optimization across the sector.



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#### Fair and Sound Working Environment

Goldwind is committed to creating a diverse, equal, and inclusive workplace climate, protecting the basic rights and interests of employees, safeguarding their occupational health and safety, providing extensive career development space and resources, respecting employees' aspirations, and providing diversified employee benefits, so as to create a reassuring and pleasant working environment for employees. In 2024, Goldwind was recognized for its strong appeal to global talent and honored with the "2024 Global Talent Magnet Employer of the Year" award by LinkedIn at the annual ConnectIng Go-Global Executive Summit organized by LinkedIn China.

Rights and

Guarantee

Interests

#### Fair and Standard Employment

Goldwind strictly abides by the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, the Employment Promotion Law of the People's Republic of China, and other applicable laws and regulations related to employment in the countries and regions where the business operations take place, and supports various international human rights conventions ratified by the Chinese government. To ensure equal and standardized employment practices, Goldwind has issued the Recruitment System of the Group and conducted internal training to clarify non-discrimination and other compliant hiring practices. Goldwind's recruitment activities strictly follow established hiring and employment procedures. In 2024, Goldwind reported no incidents of human rights violations, including discrimination, child labor, or forced labor. Furthermore, no strikes or labor disruptions occurred among employees throughout the year.

The Company strictly complies with national and local laws and regulations. It ensures timely and full contributions to employee social security and housing provident funds, with contribution bases and rates fully aligned with the requirements of local human resources and social security bureaus as well as housing provident fund management centers. There have been no instances of delayed, incorrect, or omitted payments, thereby safeguarding employees' fundamental legal rights and interests.

2024



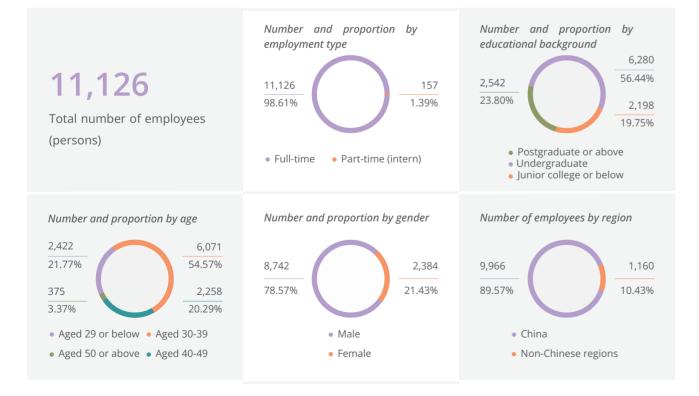
100%

signing rate of employees' labor contracts

100%

coverage rate of social insurance (including basic pension insurance, medical insurance, unemployment insurance, maternity insurance and work-related injury insurance)

#### Overview of Workforce Composition<sup>8</sup>



The total number of employees includes only full-time employees while excluding part-time employees (interns) in the statistics of all categories, except for the number of part-time employees (interns) in the category of employment type.

The Company issued the *Management Measures on Employee Rights and Interests* which prohibit and resist any form of child labor and forced labor, forbid forcing employees to work or restricting employees by means of violence, threat or illegal restriction on personal freedom, prohibit corporal punishment, intimidation, harassment, abuse and any act of discrimination against employees, and uphold employees' rights to freedom of assembly and association in accordance with laws. This has laid the foundation for the protection of employees' rights. The Measures also clarify the definitions of various types of discrimination and ensure fair and impartial treatment of employees of various races, colors, ethnicities, genders, ages, religious beliefs, and cultural backgrounds. The Company has clearly defined remediation systems for violations of child labor and standardized the channels for employees to file complaints. In case of accidental recruitment of child labor, it is necessary to report and verify as soon as possible, escort the relevant personnel home and provide appropriate financial assistance. If a violation of the rights and interests of employees is revealed, the violator will be disciplined in accordance with the *Group's Reward and Punishment Management Policy*, and the victim will be offered counseling and timely compensation.

In alignment with the United Nations Convention and the International Labor Organization Convention, the Company has issued *Anti-Modern Slavery Guidelines*. These guidelines establish a zero-tolerance principle for modern slavery and protect employees' rights to freely lodge complaints. This initiative reinforces the Company's commitment to protecting human rights globally and safeguarding employees' rights and interests. According to national laws and regulations, the Company has formulated the *Group's Attendance Management System* to safeguard a range of employee rights and interests. These include statutory holidays, paid annual leave, paid sick leave, paid maternity leave, paid prenatal check-up leave, paid marriage leave, paid bereavement leave, paid welfare leave, paid parental leave, and paid medical examination leave. This framework is designed to ensure a healthy work-life balance for all employees. Additionally, Goldwind has conducted a variety of training programs focused on employees' rights and interests. These initiatives aim to raise awareness among employees regarding their rights and interests and ensure the effective implementation of related management systems.

The Company regards the labor union as a bridge and a link to communicate with employees. It upholds employees' rights to establish a labor union on their own initiative and continues to improve the democratic management approach based on labor union consultation. The Labor Union Committee represents employees in negotiating and signing the *Collective Contract, Special Wage Agreement, Occupational Safety* and *Health Agreement,* and *Female Employee Rights Protection Agreement* with the Company. These agreements are deliberated and approved by the Workers and Employees' Congress. These agreements are publicly disclosed to employees, thereby effectively safeguarding the legitimate rights and interests of both parties in the labor relationship. The labor union engages in the review of the systems related to employee benefits and supervises the democratic disclosure procedure of these systems to implement democratic management. In 2024, the labor union representatives reviewed seven company policies, including the *Group's Attendance Management System*, the *Occupational Health Management System*.



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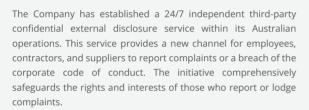
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#### Employee Communication

To enhance communication channels for employees, Goldwind has established a special column for rational suggestions within its EIS system, accessible to all domestic and international staff. The labor union has also set up an employee suggestion box. Regular communication meetings are organized to engage with employees, alongside democratic evaluations of policies that impact their interests. Additionally, there are avenues for filing complaints related to various tasks and a dedicated mailbox for the Group's audit oversight. These initiatives ensure that employees' voices are heard and reasonable requests are addressed effectively.

Additionally, the Company has established specialized grievance channels at the factory level, including anonymous suggestion boxes, QR codes for employee feedback, and monthly communication meetings to effectively gather input from workers. Feedback collected through these channels is addressed promptly: issues are accepted within one day, resolved within three working days, and followed up on within five working days. For anonymous feedback, follow-ups focus on solution implementation by responsible parties rather than contacting the feedback providers. This approach ensures employees can express concerns freely without fear of retaliation.

#### 24/7 Independent Third-Party Confidential External Disclosure Service in Australia



The service is continually reinforced through multiple channels and in 2024, the service was further improved and enhanced. Further to the provision of training for disclosure officers investigating the reports, enhancements included the addition of online reporting language options (including Chinese), the optimization of case management functions and reporting process.



Additionally, the Company continues to conduct employee satisfaction and engagement surveys to gain a comprehensive understanding of employee needs, focusing on management improvement space to develop plans and deliver ongoing improvements, so as to enhance employees' experience and satisfaction. In 2024, the Company conducted an online survey among employees, with 8,860 employees participating. The overall employee engagement score was 4.44 out of 5, a 0.06-point increase from the previous year. The employee satisfaction score was 4.39 out of 5, representing a 0.07-point year-on-year rise.

2024



4.44

4.39

in employee engagement (5-point scale)

in employee satisfaction (5-point scale)

# Employee Training and Development

Goldwind actively provides employees with diversified learning, training, and career development opportunities, while designing targeted and sustainable skill development solutions and career development paths to help employees realize personal value and broaden their career development channels

#### **Employee Training**

Goldwind has consistently prioritized talent cultivation as its core value proposition. The Company has developed the *Training Management System* and is committed to continuously enhancing its talent training framework each year. By accumulating and sharing knowledge and experience, Goldwind establishes a robust learning platform for employees, facilitating their lifelong growth and development. The Company has also developed a standardized curriculum development process, in which methods and tools are customized and optimized based on educational theories to ensure effective implementation. The training and management of internal trainers are governed by the *Instructor Management Measures*. This framework emphasizes key principles such as selection, cultivation, utilization, and retention, effectively empowering internal trainers at various levels. By the end of 2024, more than 600 internal trainers had been certified as part of the Company's efforts to empower talent both internally and externally within the new energy sector.

In order to meet the needs of the company's business development and employee growth, the Company continues to deepen the accumulation of wind power knowledge and experience, forming a knowledge tree of wind power containing more than 1,400 proprietary courses, and exploring diversified and multi-channel learning methods. Relying on the online learning platform, it has expanded the coverage of training, broadened the breadth of learning, and enriched the learning content to provide in-depth business support and satisfy the needs of employees to strengthen their expertise and basic vocational skills.

In addition to these initiatives, the Company establishes a three-tier talent development framework across the group level, business unit level, and center/department level. This framework facilitates collaboration in designing and implementing various development programs focused on leadership skills, professional competencies, general capabilities, and onboarding for new employees. Several esteemed training programs have been standardized within this system at the group level, including the Zero-Carbon Trainee Program, Training for New Managers, Goldwind Lectures, and Golden Eagle Project series.



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#### Main Group-level Learning & Development Programs in 2024

Training program	Training target	Main training content	Number of trainees	
Leadership and Management				
Training for New Managers	New managers and front-line managers	Equip them with the management knowledge and tools they should have and help them inherit the Goldwind culture and reshape the consensus of cadres, so as to assist them in changing from the roles of individual contributors to team leaders.	2 training sessions with 57 participants.	
Golden Eagle Initiative	High potential talents, cadres, and reserve cadres	Focusing on key talents across all levels within the organization, facilitating changes and improvements in their thinking and abilities, learning advanced concepts and methodologies, exploring exemplary external case studies, and engaging in group practice.	Multiple training sessions with more than 800 participants.	
Individual Compe	tency			
Basic Training	Employees	This program is a general-awareness and popularization initiative aimed at introducing the up-to-date basic knowledge of the Company to employees and informing them of the basic code of conduct, as general knowledge training for Goldwind employees.	Multiple training sessions, cumulatively covering 98% of all employees over 4 years.	
Training for New Hires	New hires	Helping new hires quickly give full play to their value on the Goldwind platform and cultivate Goldwind members with customer-oriented and frontline-driven values, including intensive training for new hires from social recruitment and those from "Zero Carbon Training Camp", Goldwind's campus recruitment.	10 training camps for new employees from social recruitment and 1 training camp for zero-carbon trainees from campus recruitment, with a total of 751 participants.	
Training of Internal Trainers	Internal trainers	With course development and experience accumulation as the core, cultivate trainers with strong development abilities based on the hierarchical empowerment model for internal trainers, ultimately facilitating the transformation of knowledge and experience to effectively promote the sharing and inheritance of knowledge within the Company.	3 training sessions for internal trainers, with 58 newly certified internal trainers.	
Online Training + Online Live Courses	Employees	Paying attention to business pain points, providing specialized training, focusing on the general skills required of all employees, popularizing professional knowledge, continuously accumulating independent intellectual property, and producing instructors with specialties.	A total of 88 online training programs and live courses, with approximately 30,000 participants and over 10,000 cumulative online learning hours.	
Profession Competency				
Goldwind Lectures	Multiple professional job series	Focusing on employees in professional job series, focusing on business development issues, empowering employees accurately, enhancing their skills, and improving their performance.	A total of 11 training sessions with 1,172 participants.	

Overview of Annual Employee
Training

94.7%

47.3 hours

Proportion of employees trained

Training hours per capita

#### **Career Development**

Goldwind consistently integrates employees' personal interests and expertise with the company's development needs. We have established a comprehensive position qualification system that defines competency requirements for different job categories and levels, clearly outlines career development paths, and drives professionals to enhance their capabilities.

The company comprehensively considers industry characteristics, development strategies, organizational positioning, responsibility boundaries, and employee competency requirements, among other factors. We have issued the *Group Position System Management Regulations*, establishing dual career paths (professional and managerial) with eight major job categories. This system actively cultivates top talent across specialties, provides employees with platforms for career success and lifelong growth, and encourages cross-functional rotations to expand career horizons. At the same time, the company attracts global talent by staffing local employees in core management teams and key positions across multiple countries. This strategy strengthens local talent reserve while providing equitable career progression pathways for international employees.

#### Compensation and Incentives

Goldwind conducts annual benchmarking of its salary levels against those of the external market within the same industry. The Company performs dynamic reviews to update its internal compensation system, ensuring that its salary offerings remain competitive and aligned with market standards. Furthermore, the Company strictly adheres to the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, and other laws and regulations.. Its strategy is based on principles such as "grading by position", "salary determination by grade", "matching people with positions", and "adjusting salaries based on position changes". Salaries are determined based on established job series and grades, with annual performance evaluations assessing employees' competencies and job performance. Performance contributions serve as the criteria for evaluating equitable compensation, ensuring that higher performance correlates with higher remuneration while eliminating biases related to non-work factors such as gender or age.

Goldwind has established a comprehensive individual performance management system that encompasses all employees. This system aligns organizational performance goals with strategic objectives, cascading them into individual performance targets at all levels of the organization. A feedback mechanism facilitates discussions between supervisors and subordinates to enhance performance supervision and provide competency coaching and necessary resource support. Quarterly and annual assessment mechanisms have been implemented to strengthen the alignment between organizational performance and individual appraisals. The results of these performance evaluations are directly linked to employees' incentives and development opportunities. Additionally, distinct incentive structures have been designed for different groups, such as management level, technical series and marketing series.

In 2024, the Company formally implemented a restricted stock incentive plan in accordance with the relevant provisions of the *Administrative Measures for Equity Incentives of Listed Companies* and the *Draft 2024 Restricted Stock Incentive Plan*, with the aim of improving long-term incentive mechanisms and strengthening the construction of a community of interests among shareholders, the company and employees. By binding the medium- and long-term contributions of outstanding talents, the plan will effectively enhance team cohesion and innovation momentum and promote the company's sustainable development. The initial grant date was set for December 13, 2024. On this date, 39.40 million Restricted Shares have been granted to 460 Participants at the Grant Price of RMB4.09 per share.

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## Occupational Health and Safety

Goldwind strictly adheres to the Production Safety Law of the People's Republic of China, the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, and other relevant laws and regulations. The Company has optimized the Group's Management System on Environmental and Occupational Health and Safety Policy, the Group Hazard Identification, Risk Assessment and Control Management Policy, and other management policies. Through fostering a safety culture, conducting safety education, promoting intrinsic safety, strengthening safety management of interested parties, ensuring the safety of operations, and implementing occupational safety and health management for all employees, the Company integrates safety system construction with business operations, striving to build an intrinsically safe enterprise. The Company implemented a safety planning initiative, establishing an annual workplace safety target of "zero fatalities and zero serious injuries". This target was communicated to the safety management teams of all production units and further broken down into actionable objectives. The resulting safety action plan included key targets such as achieving a 100% rectification rate for identified hazards within specified timeframes, completing 100% of planned safety training programs, and ensuring a 100% compliance rate in accident handling protocols. In 2024, the Company had one9 work-related fatalities among employees, zero major safety accidents, zero occurrences of occupational diseases. The coverage rate of work injury insurance reached 100%, with the total contribution amounting to RMB 14,539,100.0610.

2024



0

0

Majoy safety accidents

occurrences of occupational diseases

## Shaping Safety Culture

The Company constantly innovates the ways and forms of creating safety culture and continues to promote safety culture. In 2024, Goldwind organized the "Leaders' Speeches on Safety" video-recording initiative, featuring 115 leaders from various production units and the safety management team who shared their insights. This initiative aimed to convey the Company's philosophy on workplace safety, share valuable experiences in safety management with employees, and emphasize the importance of implementing the workplace safety accountability system. Through this action, Goldwind created a positive demonstration effect, further inspiring employees to actively participate in safety-related initiatives.

Additionally, by leveraging events such as Workplace Safety Month, Occupational Health Week, and Fire Prevention Day, the Company conducted a series of activities, including knowledge competitions, safety consultation days, forums for discussing safety topics, and collections of articles, cartoons, and videos related to workplace safety themes. These initiatives were designed to summarize effective safety management experiences tailored to the Company's business characteristics. Activities included learning about typical hazards and conducting competitions focused on enhancing safety skills. Overall, these efforts aimed to strengthen employee awareness of workplace hazards and improve their skills in risk avoidance and emergency escape procedures. Ultimately, this approach sought to ignite enthusiasm for acquiring knowledge about workplace health and safety and to cultivate a robust culture of safe practices within the organization.

Organization-Wide Safety Responsibility System

In alignment with the "Three Oversights and Three Musts" principle stipulated by the Work Safety Law, Goldwind established a comprehensive initiative for fulfilling safety responsibilities in 2024. The initiative includes four key dimensions: clarifying responsibilities, understanding responsibilities, fulfilling responsibilities, and conducting evaluations. This initiative led to the creation of a detailed list of work safety responsibilities for each level and position within the organization, clearly outlining the annual plan for fulfilling safety obligations. To facilitate this initiative, Goldwind has developed a responsibility-fulfillment assessment and tracking system within its HSE information platform. The Company regularly organizes assessments conducted by work safety managers to evaluate compliance with safety responsibilities, ensuring that all obligations are effectively met.

### Conducting Safety Education

2024



441,630

total safety training hours

In alignment with its annual safety goals and considering employees' safety knowledge levels and training needs, the Company implemented a variety of training methods in 2024. These included centralized lectures, workshops, online learning sessions, and practical drills. The training programs comprehensively covered topics such as workplace safety laws and regulations, electrical safety protocols, emergency rescue operations, safe operating procedures, hazard identification and risk assessment practices, and principles of intrinsic safety. During the training process, the Company emphasizes employee interaction, promptly addressing questions raised by participants to ensure that they fully understand and master the material presented. Additionally, to cater to the specific competency requirements for different roles within the organization, Goldwind invited external safety experts to conduct specialized training sessions. The Company also developed a variety of video courses and question banks, contributing to the establishment of an online HSE training course library. This library encapsulates Goldwind's unique HSE knowledge system. These initiatives not only enhanced employees' awareness of safety issues but also enabled them to acquire essential knowledge and skills for reducing workplace accidents. Furthermore, these efforts helped ensure overall workplace safety while fostering a stronger sense of identification with and belonging to the Company's safety culture among employees. In 2024, the total safety training hours for the entire year amounted to approximately 441,630 hours. Goldwind also provides training support to external industry peers. As of the end of 2024, the Company had delivered safety training services to over 2,000 enterprises within the industry, benefiting more than 60,000 participants. The average satisfaction rate for these training services reached 98.72%.

Goldwind's Offshore Wind Power Training Center



<sup>&</sup>lt;sup>9</sup>The cause of death of the employee was a traffic accident on the way to work. The company has carried out special inspections of the safety performance and driving qualifications of employees' electric vehicles, and conducted accident warning education and special training on safe driving of electric vehicles.

<sup>&</sup>lt;sup>10</sup> Due to differences in social security systems across various countries, the payment amount for work-related injury insurance applies only to domestic entities, excluding international ones

#### **Enhancement of Intrinsic Safety**

Goldwind places significant emphasis on intrinsic safety, employing design and engineering techniques to fundamentally eliminate or minimize potential hazards associated with systems, equipment, or processes. The Company conducts intrinsic safety training for personnel involved in R&D, product development, and safety management. Safety assessments are integrated into the R&D and design phases to enhance the intrinsic safety of wind turbine units, ensuring their safe operation at a foundational level.

Goldwind brought together technical experts from the converter manufacturer and safety and technical specialists from its various business units to conduct a thorough feasibility study on optimizing the safety protection of converters and evaluating technical improvement plans for existing models. This collaborative effort not only helped identify and rectify existing defects and issues in current converter cabinets but also offered valuable technical support and fundamental design solutions for the development of new models as well as the retrofitting of existing ones. As a result, this initiative significantly enhances the inherent safety protection capabilities of the system. Additionally, the Company has integrated safety assessments into the Integrated Product Development (IPD) process. From the outset of product design, safety management personnel actively participate in the review process. By employing intrinsically safe design principles, potential safety hazards are effectively addressed at their source, leading to a significant reduction in accident rates.

#### **Accident Prevention Management**

In 2024, at the group level, the Company consolidated hazard identification and assessment results from each unit to formulate a specialized plan for identifying potential safety hazards. The Company innovated inspection methods by conducting cross-unit safety inspections and safety standardization management reviews. This approach ensured that safety inspections and management improvement discussions were executed simultaneously. Through various methods, including regular special hazard inspections, daily safety checks, and comprehensive pre-holiday inspections, the Company effectively mitigated the occurrence of safety accidents. To address high-risk areas such as electric shock, falls from heights, and hand injuries, the Company focused on three key thematic activities:



#### **Specialized Training**

In 2024, a total of 527 employees participated in high-altitude work training; 28 employees completed advanced rescue training; over 900 employees received training for other high-altitude work;



#### Policy Issuance

In 2024, Goldwind established new regulations, including the Safety Management Standards for Energy Isolation, Lockout and Tagout, and the Safety Management Regulations for Work at Heights.



## Enhancement of Hand-Operation Safety Hazards

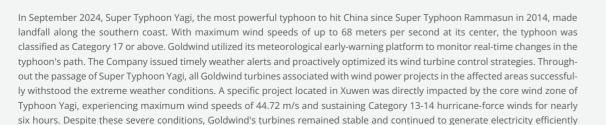
In 2024, the Company organized efforts to identify specific hazards related to hand operations and initiated improvement actions prioritizing tool safety. By the end of the year, a total of 16 actions aimed at improving safety hazards had been completed.

### Offshore Wind Power Safety

throughout the challenging period.

In terms of offshore product safety design, Goldwind places significant emphasis on enhancing resistance to extreme weather conditions. Customized designs for wind turbine blades have been developed to withstand typhoons, with a focus on optimizing strength, shape, and stress factors. These designs ensure stable vibration data and performance indicators during adverse weather events.

#### Goldwind's Wind Turbines Successfully Withstand Super Typhoon Yagi (Category 17)



Safety of Interested Party

## Occupational Health and Safety

2024



100%

occupational health examination rate of employees

In the aspect of offshore occupational safety risk management, through deepened risk identification, the Company meticulously has identified and documented over 420 operation steps while implementing a structured hierarchical management approach for approximately 3,500 potential hazard sources. This ensures precision and comprehensive coverage in hazard source identification processes. Through refined risk analysis, a comprehensive list of 64 key hazard sources has been compiled to serve as a vital reference for subsequent risk management activities. Through strengthened risk control, a regular assessment mechanism has been established for control measures. Strategies have been continuously adjusted and enhanced based on assessment feedback to ensure effective risk control that adapts to changing conditions.

Goldwind has established the *Occupational Health and Safety Management System for Interested Parties of the Group*. Here, "interested parties" encompasses suppliers and personnel from third-party companies. Goldwind adheres to the principle that "interested party safety management is an integral part of the Company's operations, and safety must be ensured in the course of business management". Goldwind has incorporated interested party safety management into its integrated management framework, clearly defining safety management standards across five key areas: the eligibility criteria for interested parties, the requirements for contract and safety agreement execution, the qualification requirements for on-site operations by interested parties, the supervision requirements during on-site operations, and the compliance with contractual obligations by interested parties. Additionally, the Company conducts annual safety assessments to implement comprehensive safety management throughout all processes.

The Company strictly implements its occupational health and safety management system. By the end of 2024, the Company's ISO 45001 Occupational Health and Safety Management System has coverd its main wind power business, hybrid tower business, energy storage business, and energy and carbon business. Additionally, in 2024, the Company revised and enhanced its *Group Occupational Health Management System*. This system delineates responsibilities for occupational disease prevention and control across all business units during occupational activities. It encompasses key areas such as ensuring simultaneous design construction for occupational disease prevention facilities (the "Three Simultaneities"), detection and evaluation of occupational disease hazards; declaration and notification requirements for hazardous items related to occupational diseases; promotion of occupational health training; maintenance protocols for prevention facilities; monitoring health outcomes; managing cases related to suspected or confirmed occupational diseases; emergency management protocols related to these hazards; as well as maintaining comprehensive records for both workplace health initiatives and employee files. In 2024, there were no reported cases of occupational diseases within the Company.

The Company has established comprehensive occupational hygiene records and monitoring files for its employees' health, conducting regular assessments to identify and evaluate potential hazards related to occupational diseases. When signing labor contracts with employees, the Company informs them of the hazard factors of the positions related to occupational diseases in advance, and strengthens occupational health and safety education and training during the onboarding training of new hires. In 2024, the occupational health examination rate of employees was 100%. In the workplace, Goldwind implements robust protective measures against occupational disease hazards by supplying employees with appropriate personal protective equipment (PPE). Warning labels and instructions are prominently displayed for equipment and chemicals that may pose health risks. Furthermore, the Company conducts routine maintenance and inspections of protective facilities and equipment.

The Company places a strong emphasis on the health and well-being of every employee. To this end, it has established the Goldwind Employee Health Standards, designed to raise employees' awareness of personal health management and to help them master and utilize scientific health management methods and tools. In 2024, the Company organized the Occupational Disease Prevention and Control Law Publicity Week, which featured a variety of activities including an occupational health knowledge competition, specialized training for management personnel, and a selection process to recognize individuals who exemplify health-conscious behaviors.

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## **Employee Care**

#### **Employee Health**



#### Medical Checkups for All Employees

By analyzing last year's employee welfare physical examination reports alongside prevalent disease trends, Goldwind has upgraded its employee welfare physical examination package to a "1 + X" model, which includes basic examination items and optional examination packages. The Company has effectively integrated welfare physical examinations for front-line employees with their occupational health assessments. Additionally, exclusive physical examination packages have been tailored for employees working in high-altitude and coastal areas, focusing on key items related to cardiovascular and rheumatic diseases.

The Company fosters an open, harmonious, and healthy work environment, pays attention to the physical and mental health of employees, and continuously optimizes work conditions, thus enhancing employees' cohesion and sense of belonging.

Goldwind adheres to the philosophy of healthy and sustainable development in its commitment to serving employees. The Company implements a series of health management initiatives aimed at stimulating employees' creativity and enhancing their sense of well-being. This positive impact extends beyond the workplace, influencing employees' families and radiating throughout society. This approach supports the cultivation of high-quality talent and promotes the development of new productive forces, ultimately driving high-quality progress within the industry.



## Optimization of Health Products and Resources

Goldwind has introduced sub-health detection equipment, testing a total of 1,500 employees, including 1,000 front-line workers. This initiative is designed to facilitate the early detection and prevention of health risks among employees.



#### Creation of a Matrix of Featured Health Products

The Company continues to implement various health management activities, including the "Daily Morning Exercise", the "100-Day Exercise Attendance for 1,000 People", and Goldwind's Gentle Drizzle Health Campaign. By 2024, the body mass index (BMI) reduction rate among employees had reached an impressive 30%.



R&D Health Day-Related Activities



Sub-health Detection



## Sharing of Health-Related Knowledge

Goldwind has organized multiple online live-streaming sessions and offline health-themed events, including "Self-Relief from Neck, Shoulder, Waist, and Leg Ailments" and "Embracing Autumn with Traditional Chinese Medicine Knowledge". Regularly scheduled popular science lectures cover topics such as traditional Chinese medicine for health preservation, scientific approaches to cancer prevention, and chronic disease management. Additionally, a series of health-related popular science articles and short videos have been disseminated to employee enhance awareness.



#### Launch of the "Health Hut" Service

In 2024, the Company launched a new "Health Hut" service, benefiting 2,396 employees. External professional doctors from 13 different medical departments were invited to provide services such as health consultations, physical examination report interpretations, and monitoring of health indicators.



#### Enhancement of Mental Health Support for Employees

By the end of 2024, a total of 1,805 employees had registered on the online platform for the Employee Assistance Program (EAP). On this platform, employees can access services such as self-help stress relief, meditation, psychological assessments, and counseling. In 2024, the Company conducted 15 offline group psychological counseling activities for employees in various formats, including painting therapy, dance therapy, sand tray therapy, and lectures.



Family Sand Tray Therapy Experience



Goldwind's Gentle Drizzle Health Campaign

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#### **Employee Benefits**

Valuing humanistic care, the Company has established a comprehensive welfare security system that goes beyond statutory benefits to provide rich and diversified welfare security for all employees. It aims to facilitate employees' work and life and offer as much help as possible for employees' personal and family lives, so as to encourage them to engage in their work and life with greater passion and dedication.

#### **Goldwind Employee Benefits Overview**

#### Statutory Benefits

- Statutory holidays, rest days, annual leave, sick leave, maternity leave, prenatal check-up leave, paternity leave, care leave, marriage leave, parental leave, and bereavement leave
- Social insurance, including basic pension insurance, medical insurance, unemployment insurance, work-related injury insurance, and maternity insurance
- Housing provident fund
- Other statutory employee benefits in the local



#### Non-statutory Benefits

- Paid leave
- Paid health examination leave
- Accommodation benefit
- Cultural benefit
- Meal allowance
- Travel allowance
- Commute shuttle bus
- Merchants in campuses
- Cultural and sports venues
- Cultural and sports training course
- Employee activity center
- Diverse cultural activities

- - Employee health checkup
  - Commercial medical insurance for employees
  - Commercial medical insurance for employees' families
  - School admission assistance for employees' children
  - Cultural and sports activities for employees' children
  - Employee assistance program
  - Employee permanent residence registration
  - Solatium for childbirth/illness/injury
  - Other benefits





Children's Day Zero-Carbon Carnival



Open Day for Employees' Families

#### **Cultural Exchanges**

The Company is committed to creating an open and transparent working environment, establishing multiple communication channels among different classes of positions, departments and cultural backgrounds. To further enhance cross-cultural exchanges, strengthen local employees' sense of belonging, and foster cross-team synergy while deepening their understanding of Goldwind's corporate culture, the Company organizes a variety of culturally distinctive activities. For example, representatives from regional engineering service teams are invited to Beijing for communication-focused training sessions. This initiative not only deepens key overseas employees' understanding of the Company but also strengthens the connections between local regions and headquarters. Additionally, the Company conducts specialized thematic exchanges aimed at establishing common standards and building systematic professional capabilities. Employees participate in discussions to address business challenges and pain points, promoting cross-regional communication and enabling the accumulation of valuable experiences.

In 2024, Chinese and foreign employees of Goldwind International's European team recorded an inspiring song titled "Everyone is Number 1". The melody celebrates their past achievements while conveying their unwavering belief in reaching new heights in the future.





Moreover, Goldwind International's Middle East and North Africa (MENA) team organized a collective wedding ceremony in Egypt, attended by Chinese and foreign employees. This collective wedding integrated unique elements from multiple cultures, effectively facilitating cross-cultural exchange.



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## Harmonious Community Relations

During its business operations, Goldwind contributes to the development of the communities where it operates by adopting a sustainable development mindset and approach. The Company focuses on community communication and development, boosts public health and education, and organizes volunteer and public welfare activities. Leveraging its business advantages and resources, it cooperates extensively with others to ensure that community stakeholders may benefit from its business operations.

# Community Communication and Development

The Company attaches importance to maintaining good relationships with the communities where it operates. It focuses on the rights and interests of the communities, strengthens community communication, and helps to address the needs of the communities. The Company has established exhibition centers on campuses for external visitors to learn about its history and acquire knowledge of renewable energy. Through regularly organized outreach lectures and other knowledge-sharing activities, Goldwind welcomes other enterprises, schools, residents, and journalists to pay a visit to it. These efforts serve as a bridge for the public to understand the development of the new energy industry and the measures for energy conservation and environmental protection so as to deepen the public's understanding of renewable energy and enhance their awareness of sustainable development.

#### Visiting Campuses for Field Research and Exchange



In 2024, Goldwind provided nearby schools in Beijing with opportunities for social practice activities by inviting them to visit and engage in educational exchanges at its headquarters campus. Throughout the year, Goldwind hosted 12 visits from seven schools, with a total of 666 visitors.



## **Supporting Education**

Goldwind fully recognizes that universal education is essential for building a highly educated nation. As a leading company in new energy in China, the Company is committed to providing intellectual output to society around new energy technologies such as wind power and facilitating the development of public education.

Goldwind makes full use of the advantages of hardware and software resources across its campuses and manufacturing bases to establish youth science and practice bases. By the end of 2024, Goldwind had established science and practice bases in four of its campuses located in Beijing, Xinjiang, Shandong, and Jiangsu. The Xinjiang campus was awarded as a"National Popular Science Education Base". The Beijing campus was designated as the "Social Classroom Resource Unit for Primary and Secondary School Students" in the Beijing Economic-Technological Development Area. Additionally, the water plant in Yanggu County, Liaocheng City, Shandong Province was recognized as the "Provincial Environmental Protection Education Base".

#### Goldwind's "Rural Teacher Training Camp"



Since 2016, Goldwind has consistently organized the "Growth Camp for Rural Teachers in China" for nine consecutive years. This public welfare initiative aims to enhance the pedagogical concepts and teaching capabilities of rural educators, thereby better equipping students with scientific literacy and innovative skills. In 2024, the growth camp saw participation from a total of 345 principals and teachers from nine provinces, municipalities, and autonomous regions across the country, representing 266 rural schools nationwide.



## Spreading the Health Concept

The Company has also summarized its exemplary practices in employee health management and actively engaged in health management exchanges with external interested parties, thereby contributing to society. In 2024, Goldwind organized multiple health system exchange activities, hosting external enterprise teams at its campuses. The Company also hosted a "Health Carnival" event in the Beijing Economic-Technological Development Area, providing health project experience services to residents of surrounding communities and employees from nearby enterprises. Additionally, Goldwind offered training in cardiopulmonary resuscitation (CPR) and first aid to over 30 rural teachers from across the country.

Moreover, Goldwind utilizes green-branded sporting events as a platform to promote industry development and advocate for national fitness. In 2024, Goldwind integrated long-distance running events themed around wind energy and green, low-carbon environmental concepts into both internal and external sporting activities. The Company invited industry clients and supply chain partners to participate in various competitions, including the Inner Mongolia Xilingol League Table Tennis and Badminton Elite Tournament, the Half Marathon in Chengwu County, Heze City, Shandong Province, and the Goldwind-Mobil Cup Wind Power Industry Basketball Invitational Tournament. Through these initiatives, Goldwind aimed to promote the sustainable development of industrial chains.



Half Marathon Race in Chengwu County, Heze City, Shandong Province



Goldwind-Mobil Cup Wind Power Industry Basketball Invitational Tournament

## Volunteering and Public Good

Volunteer services serve as an essential source of motivation, empowering employees to demonstrate their initiative and innovative spirit while promoting social innovation. The Company regularly organizes volunteer activities, encouraging and supporting employees to contribute their knowledge and skills through volunteer services.

Since the Company initiated and funded the establishment of Beijing Goldwind Public Welfare Foundation in 2019, the Foundation has carried out internal governance, public welfare projects, voluntary services, financial statements, and information disclosure in accordance with relevant laws and regulations such as the *Charity Law of the People's Republic of China and the Regulation on Foundation Administration*.

The foundation has established the *Volunteer Management System* to effectively manage registered volunteers. In 2024, a range of volunteer service projects were planned, along with four specialized training sessions. Additionally, a volunteer mini-program was developed using digital systems to actively recruit volunteers from Goldwind's employee base and provide them with diverse opportunities for engagement in volunteering activities.

#### Goldwind's Stars Care Initiative



In 2024, the Foundation, in collaboration with the Preferred Disability Support Center and Wit & Love Child Development Center, launched the second phase of the Goldwind Stars Care Initiative for children with autism. This project encompasses a variety of activities, including parent training sessions, screenings in schools and institutions, sports meets, outdoor hikes, and the establishment of resource centers such as the sand-table room and the library.

Furthermore, the Foundation partnered with Goldwind volunteers to develop an Al-powered intelligent diagnosis and treatment assistant. This tool aims to help parents better understand autism spectrum disorders and facilitate the timely identification of autistic children.



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## **Performance Indicators**

## Research & Development

Indicator	Unit	2024	2023	2022
Number of R&D technicians	person	3,213	3,251	3,455
Proportion of R&D technicians to total employees	%	28.88	30.52	30.85
R&D investment	RMB 100 million	28.03	22.65	22.22
Proportion of R&D investment to revenue	%	4.94	4.49	4.78
Cumulative number of domestic patent applications	item	6,173	5,980	5,469
Cumulative number of domestic invention patent applications	item	3,740	3,566	3,192
Cumulative number of domestic patent licenses	item	4,541	4,301	3,918
Cumulative number of domestic invention patent licenses	item	2,279	2,021	1,737
Cumulative number of overseas patent applications	item	1,345	1,163	1,066
Cumulative number of overseas patent licenses	item	811	593	467
Cumulative number of domestic standard-setting participation	item	572	465	361
Cumulative number of overseas standard-setting participation	item	31	31	31

### **Environment Management**

Indicator	Unit	2024	2023	2022
Total electricity consumption	100 million kWh	7.14	6.99	6.87
Self-generated electricity consumption of wind and solar	100 million kWh	3.78	3.55	3.64
Gasoline consumption	kL	3,213.63	3,809.33	2,958.10
Diesel consumption	kL	1,905.28	1,974.01	1,648.69
Liquefied petroleum gas consumption	ton	107.56	134.99	160.36
Natural gas consumption	10,000 m <sup>3</sup>	66.53	77.62	77.86
Overall energy consumption per MW	ton of standard coal/MW	0.55	0.54	0.59
Overall energy consumption per water treatment capacity	ton of standard coal/10k tons	0.46	0.48	0.46
Water consumption	10k tons	81.98	89.59	82.85
Water consumption per capita	ton/capita	44.80	51.11	55.81
Water use intensity for production and operations	ton/ thousand tons of water treatment capacity	0.48	0.50	0.70
Wooden packaging	ton	641.51	620.68	887.21
Density of wooden packaging usage	ton/unit	0.065	0.068	0.28

Indicator	Unit	2024	2023	2022
Wind power business hazardous waste	ton	67.11	83.25	73.95
Hazardous waste generation per MW wind turbine production unit	ton/MW	0.0019	0.0035	0.0067
Wind farm construction waste	ton	249.83	268.61	397.89
GHG emissions (market-based)	tCO₂e	18,459.33	21,199.85	19,997.28
GHG emissions (location-based)	tCO₂e	198,773.81	217,330.14	203,729.72
Scope 1 emissions	tCO₂e	17,334.13	20,006.67	18,746.01
Scope 2 emissions (market-based)	tCO₂e	1,125.20	1,193.18	1,251.27
Scope 2 emissions (location-based)	tCO₂e	181,439.68	197,323.47	184,983.71
GHG emissions intensity per MW	tCO <sub>2</sub> e/MW	0.1594	0.1864	0.1896
GHG emissions intensity per cubic meter of water treated	tCO <sub>2</sub> e/10k tons	0.0073	0.0088	0.0152

## Workforce Composition

Indicator	Unit	2024	2023	2022
Total number of employees	person	11,126	10,651	11,200
By employment				
Full-time	person	11,126	10,651	11,200
Part-time	person	157	83	173
By gender				
Male	person	8,742	8,371	8,927
Female	person	2,384	2,280	2,273
By age				
Aged 29 or below	person	2,422	2,208	2,814
Aged 30-39		6,071	6,191	6,394
Aged 39-49	person	2,258	1,935	1,679
Aged 50 or above	person	375	317	313
By region				
China	person	9,966	9,551	10,188
Other Asian countries	person	171	144	106

Indicator	Unit	2024	2023	2022
Europe	person	367	362	404
North America	person	107	101	99
South America	person	230	200	178
Oceania	person	210	228	199
Africa	person	75	65	26
By specialization				
Production staff	person	1,411	1,576	1,634
Sales staff	person	1,335	1,279	1,324
Technical staff	person	3,213	3,251	3,455
Client service staff	person	2,625	2,143	2,364
Administrative staff	person	2,542	2,402	2,423
By educational background				
Postgraduate or above	person	2,648	2,453	2,502
Undergraduate	person	6,280	6,090	6,302
Junior college or below	person	2,198	2,108	2,396

## Fair and Standard Employment

Indicator	Unit	2024	2023	2022
Labor contract signing rate	%	100	100	100
Social insurance coverage rate	%	100	100	100
Number and proportion of female managers	person (%)	109 (20.57)	109 (19.89)	94 (18.76)
Number and proportion of disabled employees	person (%)	79 (0.70)	75 (0.70)	73 (0.65)
Number and proportion of ethnic minority employees	person (%)	563 (5.06)	559 (5.25)	577 (5.15)
Number and proportion of foreign employees	person (%)	1,160 (10.40)	1,100 (10.33)	1,012 (9)
Annual paid vacation days per capita	day	7.6	8.7	9.88

## Employee Turnover Rate

Indicator	Unit	2024	2023	2022
Employee turnover rate	%	14.60	16.51	12.56
By gender				

Indicator	Unit	2024	2023	2022
Male	%	14.80	17.27	12.05
Female	%	12.69	12.42	11.81
By age				
Aged 29 or below	%	16.32	21.58	14.23
Aged 30-39	%	14.07	16.58	11.94
Aged 39-49	%	12.37	8.00	8.45
Aged 50 or above	%	13.27	14.76	9.45
By region				
China	%	13.44	16.19	12.24
Other Asian countries	%	24.34	12.80	7.29
Europe	%	14.87	2.19	10.71
North America	%	19.60	8.00	18.10
South America	%	31.25	11.11	9.09
Oceania	%	22.48	19.67	27.92
Africa	%	42.95	13.19	18.87

## Employee Training

Indicator	Unit	2024	2023	2022
Training hours per capita	hour	47.3	48.5	46.0
By job level				
Senior management	hour	34.5	30.6	23.3
Middle and basic management	hour	48.4	31.3	29.8
Junior employees	hour	47.4	54.7	47.6
By gender				
Male	hour	51.0	57.4	52.9
Female	hour	34.5	17.3	20.1
Proportion of employees trained	%	94.7	97.0	99.1
By job level				
Senior management	%	100	100	100
Middle and basic management	%	96.9	100	99.1
Junior employees	%	94.7	95.9	99.0
By gender				

Indicator	Unit	2024	2023	2022
Male	%	95.6	97.7	99.2
Female	%	76.7	94.3	98.6

#### Occupational Health and Safety

Indicator	Unit	2024	2023	2022
Occurrence of occupational diseases	times	0	0	0
Occurrence of major safety accidents	times	0	0	0
Number of work-related fatalities	person	1	0	1
Lost workdays due to work injury	day	170	334	213
Safety training hours	hour	441,630	450,480	388,547
By employee category				
Special operation employee	hour	11,792	9,658	24,514
Safety management employee	hour	14,095	18,385	11,127
Front-line operation employee	hour	321,554	351,298	290,945
New hires	hour	80,158	47,058	53,106
Persons in charge	hour	14,032	12,045	10,767

#### **Supply Chain**

Indicator	Unit	2024	2023	2022
Number of wind turbine component suppliers <sup>11</sup>	number	463	455	374
By region				
China	number	394	386	318
Other Asian countries	number	5	5	5
Europe	number	50	50	42
North America	number	7	7	9
South America	number	7	7	/

#### Public Welfare

Indicator	Unit	2024	2023	2022
Volunteer hours contributed by employees	hour	3,371	18,680	5,840

<sup>&</sup>quot;The qualified suppliers who provide components, production and services, tools and consumables, equipment, packaging and other raw materials or (and) services in accordance with the Management Measures for the Development of Wind Turbine Component Suppliers, which have been evaluated and approved through over 100 strict indicators in business, technology, quality, service, and safety, among other dimensions.

## **Independent Assurance Statement**

To the Board of Directors of Goldwind Science & Technology Co., Ltd.: SWCS Corporate Services Group (Hong Kong) Limited ("SWCS", "we") has been engaged by Goldwind Science & Technology Co., Ltd. ("Goldwind") to conduct an independent limited assurance ("Assurance Engagement") on the information and data disclosed in the 2023 Sustainability Report (the "Report") of Goldwind. SWCS conducted the Assurance Engagement on the Report of Goldwind in accordance with the AA1000 AccountAbility Assurance Standard v3 ("AA1000AS v3"). Moreover, SWCS has also been engaged to conduct the Assurance Engagement on the reliability and accuracy of selected performance indicators disclosed in the Report.

#### I.Independence and Competence

SWCS was not involved in collecting and calculating data involved in the Report, or in the development of the Report. SWCS's activities are independent of Goldwind. There is no relationship between Goldwind and SWCS beyond the contractual agreement for providing this Assurance Engagement. SWCS has been recognized by AccountAbility. The assurance team of SWCS has extensive experience in the industry and has received professional training of standards related to sustainable development, including the Global Reporting Initiative Standards (GRI Standards), the AA1000AS v3, the Environmental, Social and Governance Reporting Guide ("ESG Guide") issued by the Stock Exchange of Hong Kong Ltd. ("the Stock Exchange"), etc. The assurance team has sufficient understanding and capabilities of implementation of the AA1000AS v3, and the Assurance Engagement related to sustainable development issues is carried out in line with SWCS's internal assurance protocol.

#### II. Goldwind's Responsibilities

Goldwind is responsible for the preparation and presentation of the Report in accordance with the ESG Guide published by the Stock Exchange. Goldwind is also responsible for implementing relevant internal control procedures to ensure that the contents of the Report are free from material misstatement, whether due to fraud or error.

#### III. Assurance Provider's Responsibilities

SWCS is responsible for issuing an independent assurance statement to the Board of Directors of Goldwind in accordance with the AA1000AAS v3. This independent assurance statement applies solely to express a conclusion on the assurance work in the specified scope of Goldwind's Report, and does not serve any other intents or purposes. All results of assurance are internally reviewed by professionals to ensure that methodologies used in the process are sufficiently stringent and transparent.

#### IV.Assurance Scope

The scope of the Assurance Engagement does not include Goldwind's suppliers, contractors, and information or data provided by other third parties. A Type 2 Moderate Level of Assurance of the AA1000AS v3 was adopted by SWCS to evaluate the nature and extent of Goldwind's adherence to the four principles (Inclusivity, Materiality, Responsiveness and Impact) in accordance with the AA1000AS v3. The following specific performance indicators disclosed in the Report were agreed between Goldwind and SWCS to be selected for assurance:

Scope	Indicators	Type of Information
Social	Total Employee Turnover Rate	Quantitative
	Anti-Corruption and Business Ethics Audit	Qualitative
	Compensation and Non-Compensation Benefits	Qualitative

SWCS's assurance work was with respect to the information from 1 January 2024 to 31 December 2024. We do not express any conclusions on any information that falls outside this period or any other data disclosed in the Report not included within the assurance scope. The scope of the Assurance Engagement is based on and confined to the information provided by Goldwind. Any queries regarding the content or related matters within this assurance statement should be addressed to Goldwind only.

#### V.Methodology

SWCS conducted Assurance Engagement only within Goldwind's office in Beijing, and the assurance works conducted include:

-Conducting interviews with management and relevant departments that are responsible for collecting data on selected indicators, and documentation reviews:

-Understanding the processes and methods of Goldwind in identifying and collecting feedbacks from stakeholders;

-Assessing whether the reporting approach of the Report has been conducted in line with the principles of Inclusivity, Materiality, Responsiveness and Impact as defined in the AA1000AS v3;

indicators in business, technology, quality, service, and safety, among other dimensions.

- -Reviewing Goldwind's sustainable development management and conducting sampling of selected indicators to understand its management system:
- -Conducting random sampling of selected indicator information, assess the reliability of data collection, and understand the management system used to ensure data quality;
- -Assessing whether the statement in the Report is consistent with the conclusion:
- -Performing other procedures deemed considered necessary.

Assurance work was performed and the conclusions within were based upon the information and data provided by Goldwind to SWCS, and on assumptions that the information provided was complete and accurate.

#### VI.I imitations

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

#### VII.Conclusions

Based on the Report of Goldwind and information provided, nothing has come to our attention that causes us to believe that the Report is not prepared, in all material respects, in accordance with the four principles of AA1000AS v3.

Based on the procedures implemented and the evidences obtained, we have not found anything that put us in doubt of the reliability and accuracy of the selected performance indicators for the Assurance Engagement in the Report.

#### VIII.Key Observations

SWCS summarizes key observations of the Report against the principles of Inclusivity, Materiality, Responsiveness and Impact of AA1000AS v3 as follows:

#### Inclusivity

Goldwind has developed a comprehensive system to effectively identify key stakeholders, and continuously communicates with different stakeholders through a variety of channels such as publishing sustainability reports, engaging in external interviews and market research, and participating in conferences and forums on sustainable development, in order to understand and identify the issues of concern to different stakeholders, and to collect stakeholders' expectations and key concerns on material issues, and to negotiate with parties that may be impacted by Goldwind's operations. This Report has covered the environmental, social and governance aspects that Goldwind and its stakeholders are concerned about, and has collected views from key stakeholders to assist in reviewing the applicability of identified material issues. In our professional opinion, Goldwind adheres to the Principle of Inclusivity.

#### Materiality

Goldwind has continuously collected, considered and analyzed comprehensive and balanced information. In order to identify social responsibility risks and opportunities and to sort out social responsibility issues and stakeholders, Goldwind has established a social responsibility management system, which helps Goldwind understand the needs, benefits, and priorities of its own business and its stakeholders. Based on the results of materiality assessment, Goldwind has also identified issues that are material to the Company and stakeholders based on the materiality assessment, and incorporated the results into sustainable development strategic planning, ensuring that the necessary capacity and resources are provided to apply the results of the materiality assessment, with the Board of Directors overseeing and determining the Company's overall approach to sustainability and ensuring the work focuses are in line with the material issues concerned by the stakeholders. In our professional opinion, Goldwind adheres to the Principle of Materiality.

#### Responsiveness

Goldwind continuously optimizes and improves the level of its sustainability efforts based on stakeholders' expectations and recommendations to the Company. Goldwind has developed relevant mechanisms or measures to respond to the concerns of key stakeholders and develops strategic planning for sustainable development, sustainable development goals and action plans based on sustainable development material topics. Goldwind identifies key priorities through its sustainable development strategic planning and allocates sufficient resources to respond to material topics and their associated impacts and stakeholders in a comprehensive, accurate, timely, objective and well-considered manner. In our professional opinion, Goldwind adheres to the Principle of Responsiveness.

#### Impact

Goldwind has identified its material impact on operations, and formulated relevant policies to improve its operational impacts on society and the environment through effective communication with stakeholders. For instance, Goldwind ensures environmental protection in accordance with legal requirements throughout all phases of wind power projects, from development to construction and operation. Goldwind prepares environmental impact assessment reports for wind farm construction projects, identifying the impacts of wind farms on the environment during their development, construction, and operation, and formulates corresponding countermeasures. Additionally, it also prepares technical plans, proposing to analyze the impact of wind farm on species during the product design phase and investigate the noise impact brought by wind farm to develop solutions. In our professional opinion, Goldwind adheres to the Principle of Impact.





21st March, 2025 Hong Kong

## **Indexes of Report Indicators**

The Content Index of Environmental, Social and Governance Reporting Guide issued by Hong Kong Stock Exchange

		ocation or Remar
	vironmental Adaptation	
Aspec	t A1: Emissions	
Gener	al disclosure: Information on:	
(a)t	ne policies; and	
(b)c	ompliance with relevant laws and regulations that have a significant impact on the issuer	P46-P5
relatin	g to health and safety, advertising, labelling and privacy matters relating to products and services provided and	
metho	ds of redress.	
A1.1	The types of emissions and respective emissions data.	P46-P
A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate,	P
intensi	ty (e.g. per unit of production volume, per facility).	F.
A1.3 per fac	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, ility).	Р
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production	
volum	e, per facility).	Р
A1.5	Description of emissions target(s) set and steps taken to achieve them.	P16-17,P46-
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set	D16 17 DE0
and st	eps taken to achieve them.	P16-17,P50-
Aspec	t A2: Use of Resources	
Gener	al disclosure: Policies on the efficient use of resources, including energy, water and other raw materials.	P48-P
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g.	P
per un	it of production volume, per facility).	F
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Р
A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	P16-17,P46-
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and	P16-17,P
steps t	aken to achieve them.	1 10-17,1
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produce	d. P
Aspec	t A3: The Environment and Natural Resources	
Gener	al disclosure: Policies on minimising the issuer's significant impacts on the environment and natural resources.	P28-29,P54-P
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to	
manag	e them.	P28-29,P54-P
Aspec	t A4: Climate Change	
Gener	al Disclosure: Policies on identification and mitigation of significant climate-related issues which have impacted, and the	iose P42-P
which	may impact, the issuer.	F4Z-P
A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, a	nd P42-P
the act	ions taken to manage them.	F 4Z-P
B: Soc	ial	
Emplo	yment and Labour Practices	

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Subje	ct Areas, Aspects, General Disclosures and KPIs	Location or Remark
Aspec	t B1: Employment	
Gener	al disclosure: Information on:	
(a) t	he policies; and	
(b)	compliance with relevant laws and regulations that have a significant impact on the issuer	P64-P66
relatin	g to health and safety, advertising, labelling and privacy matters relating to products and services provided and meth	nods of
redres	is.	
B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	P64
B1.2	Employee turnover rate by gender, age group and geographical region.	P88-P89
Aspec	t B2: Health and Safety	
Gener	al disclosure: Information on:	
(a) t	he policies; and	
(b)	compliance with relevant laws and regulations that have a significant impact on the issuer	P70-P73
relatin	g to health and safety, advertising, labelling and privacy matters relating to products and services provided and meth	nods of
redres		
B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	P90
B2.2	Lost days due to work injury.	P90
B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	P70-P73
Aspec	t B3: Development and Training	
	al disclosure: Policies on improving employees' knowledge and skills for discharging duties at work. Description of tra	
activiti	ies.	P67-P69
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle manage	ment). P89-P90
B3.2	The average training hours completed per employee by gender and employee category.	P89-P90
Aspec	t B4: Labour Standards	
Gener	al disclosure: Information:	
(a) t	he policies; and	
(b) d	compliance with relevant laws and regulations that have a significant impact on the issuer	P64-P65
relatin	g to health and safety, advertising, labelling and privacy matters relating to products and services provided and meth	nods of
redres	is.	
B4.1	Description of measures to review employment practices to avoid child and forced labour.	P65
B4.2	Description of steps taken to eliminate such practices when discovered.	P65
Oper	ating Practices	
Aspec	t B5: Supply Chain Management	
Gener	al disclosure: Policies on managing environmental and social risks of the supply chain.	P58-P61
B5.1	Number of suppliers by geographical region.	P90
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being	
impler	mented, and how they are implemented and monitored.	P58
B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are	
impler	mented and monitored.	P59-P60
B5.4	Description of practices used to promote environmentally preferable products and services when selecting	
	ers, and how they are implemented and monitored.	P60

Subje	ect Areas, Aspects, General Disclosures and KPIs	Location or Remark
Aspe	tt B6: Product Responsibility	
Gener	ral disclosure: Information on:	
(a)	the policies; and	
(b)	compliance with relevant laws and regulations that have a significant impact on the issuer	P24-P27
relatir	ng to health and safety, advertising, labelling and privacy matters relating to products and services provided and	
metho	ods of redress.	
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	P26
B6.2	Number of products and service related complaints received and how they are dealt with.	P26
B6.3	Description of practices relating to observing and protecting intellectual property rights.	P24
B6.4	Description of quality assurance process and recall procedures.	P26
B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	P38-P39
Asped	tt B7: Anti-corruption	
Gener	al disclosure: Information on:	
(a) t	the policies; and	
(b)	compliance with relevant laws and regulations that have a significant impact on the issuer	P38
relatir	g to health and safety, advertising, labelling and privacy matters relating to products and services provided	
and m	ethods of redress.	
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees	P38
during	the reporting period and the outcomes of the cases.	F 30
B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and	P38
monit	ored.	F30
B7.3	Description of anti-corruption training provided to directors and staff.	P38
Com	munity	
Aspe	tt B8: Community Investment	
Gener	al disclosure: Policies on community engagement to understand the needs of the communities where the	P80-P83
issuer	operates and to ensure its activities take into consideration the communities' interests.	F00-F03
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	P80-P83
B8.2	Resources contributed (e.g. money or time) to the focus area.	P80-P83

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## The Content Indexes of GRI Standards and United Nations Sustainable Development Goals (SDGs)

Goldwind reported the information cited in this GRI Content Index with reference to the GRI Standards from January 1, 2024 to December 31, 2024.

Standard Ref.No. and Disclosure	Page	Sustainable Development Goals (SDGs)
GRI 2: General Disclosures 2021		
The organization and its reporting practices		
2-1 Organizational details	P08-P11	
2-2 Entities included in the organization's sustainability reporting	P02	
2-3 Reporting period, frequency and contact point	P02-P03	
2-4 Restatements of information	P02-P03	
2-5 External assurance	P91-P92	
Activities and workers		
2-6 Activities, value chain and other business relationships	P08-P09, P58-P61	
2-7 Employees	P64, P87-P88	SDG8、SDG10
2-8 Workers who are not employees	P58-P61	SDG8
Governance		
2-9 Governance structure and composition	P14, P34	SDG5、SDG16
2-10 Nomination and selection of the highest governance body	P34	SDG5、SDG16
2-11 Chair of the highest governance body	P14, P34	SDG16
2-12 Role of the highest governance body in overseeing the management of impacts	P14, P34	SDG16
2-13 Delegation of responsibility for managing impacts	P14, P34	
2-14 Role of the highest governance body in sustainability reporting	P14, P34	
2-15 Conflicts of interest	P34-P39	SDG16
2-16 Communication of critical concerns	P14-P19	
2-17 Collective knowledge of the highest governance body	P02-P03, P34	
Strategy, policies and practices		
2-22 Statement on sustainable development strategy	P15-P17	
2-23 Policy commitments	P02-P03, P15-P17	SDG16
2-24 Embedding policy commitments	P02-P03, P15-P17	
2-25 Processes to remediate negative impacts	P24-P83	
2-26 Mechanisms for seeking advice and raising concerns	P15-P17, P38	SDG16
2-27 Compliance with laws and regulations	P24-P83	
2-28 Membership associations	P21	
Stakeholder engagement		
2-29 Approach to stakeholder engagement	P18-P19	

Standard Ref.No. and Disclosure	Page	Sustainable Developmen Goals (SDG:
2-30 Collective bargaining agreements	P65-P66	SDG8
GRI 3: Material Topics 2021		
3-1 Process to determine material topics	P18	
3-2 List of material topics	P18	
GRI 201: Economic Performance 2016		
201-1 Direct economic value generated and distributed	P86	SDG1、SDG8、SDG9
201-2 Financial implications and other risks and opportunities due to climate change	P42-P45	SDG1、SDG13
GRI 203: Indirect Economic Impacts 2016		
203-1 Infrastructure investments and services supported	P80-P83	SDG1、SDG5、SDG9、SDG1
203-2 Significant indirect economic impacts	P80-P83	SDG1、SDG3、SDG8
GRI 205: Anti-corruption 2016		
3-3 Management of material topics	P18	
205-2 Communication and training about anti-corruption policies and procedures	P38	SDG1
205-3 Confirmed incidents of corruption and actions taken	P38	SDG1
GRI 302: Energy 2016		SDG
3-3 Management of material topics	P18	
302-1 Energy consumption within the organization	P48-P49	SDG7、SDG8、SDG10、SDG1
302-3 Energy intensity	P48-P49	SDG7、SDG8、SDG10、SDG1
302-4 Reduction of energy consumption	P48-P49	SDG7、SDG8、SDG10、SDG1
302-5 Reductions in energy requirements of products and services	P24-P31, P59	SDG7、SDG8、SDG10、SDG1
GRI 303: Water and Wastewater 2018		
3-3 Management of material topics	P18	
303-3 Water withdrawal	P49	SDG
303-5 Water consumption	P49	SDG
GRI 304: Biodiversity 2016		
3-3 Management of material topics	P18	
304-2 Significant impacts of activities, products and services on biodiversity	P26-P29, P53-P55	SDG6、SDG14、SDG1
GRI 305: Emissions 2016		SDG
3-3 Management of material topics	P18	
305-1 Direct (Scope 1) GHG emissions	P46	SDG3、SDG12、SDG13、SDG1
305-2 Energy indirect (Scope 2) GHG emissions	P46	SDG3、SDG12、SDG13、SDG1
305-4 GHG emissions intensity	P46	SDG3、SDG12、SDG13、SDG1
305-5 Reduction of GHG emissions	P46-P47	SDG3、SDG12、SDG13、SDG1

Standard Ref.No. and Disclosure	Page	Sustainable Development Goals (SDGs)
GRI 306: Waste 2020		SDG3
3-3 Management of material topics	P18	
306-2 Management of significant waste-related impacts	P50-P51	SDG3、SDG6、SDG8、SDG11、
		SDG12
306-3 Waste generated	P50-P51	SDG3、SDG6、SDG11、SDG12、
		SDG15
306-4 Waste diverted from disposal	P50-P51	SDG3、SDG11、SDG12
306-5 Waste directed to disposal	P50-P51	SDG3、SDG11、SDG12、SDG15
GRI 308: Supplier Environmental Assessment 2016		
3-3 Management of material topics	P18	
308-1 New suppliers that were screened using environmental criteria	P60	
308-2 Negative environmental impacts in the supply chain and actions taken	P60	
GRI 401: Employment 2016		
3-3 Management of material topics	P18	
401-1 New employee hires and employee turnover	P87-P89	SDG5、SDG8、SDG10
401-2 Benefits provided to full-time employees that are not provided to	P76	SDG5、SDG8
temporary or part-time employees		
GRI 403: Occupational Health and Safety 2018		
3-3 Management of material topics	P18	
403-2 Types of injury and rates of injury, occupational diseases, lost days,	P73	SDG3
and absenteeism, and number of work-related fatalities		
403-3 Workers with high incidence or high risk of diseases related to their	P90	SDG3
occupation		
GRI 404: Training and Education 2016		SDG4
3-3 Management of material topics	P18	
403-3 Occupational health services	P69	SDG4、SDG8、SDG10
403-9 Work-related injuries	P67-P69	SDG4、SDG8
GRI 405: Diversity and Equal Opportunities 2016		
3-3 Management of material topics	P18	
405-1 Diversity of governance bodies and employees	P34, P64, P77	SDG5、SDG8

Standard Ref.No. and Disclosure	Page	Sustainable Development Goals (SDGs)
GRI 406: Non-discrimination 2016		
3-3 Management of material topics	P18	
406-1 Incidents of discrimination and corrective actions taken	P64-P65	SDG8
GRI 408: Child Labor 2016	P64-P67	SDG5
3-3 Management of material topics	P18	
GRI 409: Forced or Compulsory Labor 2016	P64-P67	SDG5 \ SDG8
3-3 Management of material topics	P18	
GRI 413: Local Communities 2016		
3-3 Management of material topics	P18	
413-1 Operations with local community engagement, impact assessments, and	P80-P83	SDG 2
development programs		
GRI 414: Supplier Social Assessment 2016		SDG5
3-3 Management of material topics	P18	
414-1 New suppliers that were screened using social criteria	P59-P60	SDG5、SDG8
GRI 416: Customer Health and Safety 2016		
3-3 Management of material topics	P18	
416-1 Assessment of the health and safety impacts of product and service categories	P26	
416-2 Incidents of non-compliance concerning the health and safety impacts of products and	P26	SDG16
services		

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### The Content Index of the Ten Principles of the United Nations Global Compact (UNGC)

Ten Principles of the	United Nations Global Compact	Location
Human rights	Principle 1: Businesses should support and respect the protection of internationally	P16-17, P59, P64-P66
	proclaimed human rights; and	
	Principle 2: make sure that they are not complicit in human rights abuses.	P59, P64-P66
Labour	Principle 3: Businesses should uphold the freedom of association and the effective	P59, P64-P66
	recognition of the right to collective bargaining;	
	Principle 4: the elimination of all forms of forced and compulsory labor;	P59, P64-P66
	Principle 5: the effective abolition of child labor; and	P59, P64-P66
	Principle 6: the elimination of discrimination in respect of employment and occupation.	P59, P64-P66
Environment	Principle 7: Businesses should support a precautionary approach to environmental	P42-P55, P60
	challenges;	
	Principle 8: undertake initiatives to promote greater environmental responsibility; and	P42-P55, P60
	Principle 9: encourage the development and diffusion of environmentally friendly	P24-P31, P61
	technologies.	
Anti-corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion	P38, P58-59
	and bribery.	