

2023 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT

LONGYUAN POWER



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About This Report

This report is the thirteenth independent report issued by China Longyuan Power Group Corporation Limited. With the deepening of practices and the renewal of ideas, this report has been renamed to be Environmental, Social and Governance Report since 2022. It is also the second ESG report issued by the Company.

Scope of organization

This report covers China Longyuan Power Group Corporation and its subsidiaries (consistent with the scope of consolidated financial statement).

Reporting period

This report covers the period from January 1, 2023 to December 31, 2023. In order to enhance its comparability and integrity, some information has been traced backward or forward, as appropriate.

Name description

China Longyuan Power Group Corporation Limited is referred to as "Longyuan Power", "we/our" and "the Company" in this report.

Source of information

The financial data disclosed herein are from the *2023 Annual Report of China Longyuan Power Group Corporation*. Other data are all from Longyuan Power's formal documents and statistical reports, which have been approved by the Company's relevant departments and verified by independent third-party institutions. Unless otherwise specified, the monetary unit in this report shall be the RMB.

Reporting standards

The 2030 Agenda for Sustainable Development

The GRI Sustainability Reporting Standards ("GRI Standards")

The Environmental, Social, and Governance Reporting Guidelines of the Stock Exchange of Hong Kong Limited (HKEX) (the "HKEX Guidelines")

ISO 26000: Guidance on Social Responsibility (2010) of the International Organization for Standardization (ISO)

The Project of Special ESG Report Formulation of Listed Companies Controlled by Central Enterprises of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC)

China's Corporate Social Responsibility Reporting Guidelines (CASS-ESG 5.0) of the Chinese Academy of Social Sciences

Reporting principles

This report follows the reporting principles of "materiality", "quantification", and "consistency" in the HKEX Guidelines. We consider rating criteria at home and abroad, the ESG latest trends, and the questionnaires of stakeholders to screen out material issues in response to the "materiality" principle. By establishing an ESG indicator information system covering the Company's headquarters and subsidiaries, we quantify key disclosure indicators in the ESG reports statistically in response to the "quantification" principle. By referring to the disclosure scope of the Company's annual reports, we adopt the same data disclosure standard and statistical method to meet the "consistency" principle.

Report access

This report is available in simplified Chinese, traditional Chinese and English, and published in the electronic PDF version. You can read and download it from the HKEX's website (www.hkexnews.hk), the Shenzhen Stock Exchange's website (https://www.szse.cn), and the Company's website (http://www.clypg.com.cn/). In case of any discrepancy, the simplified Chinese version shall prevail.

Chairman's Statement



Aligning closely with high-quality development, environmental, social and governance (ESG) framework has gradually become a measuring standard and management tool not only for the capital market to evaluate the investment value of a company, but also a guide for stakeholders to systematically and reasonably judge the value and quality of a company.

In 2023, we optimized ESG topics and indicators continually. By fully leveraging the characteristics of the new energy industry, we innovatively developed a new natural economic model integrating renewable energy and natural benefits. With the empowerment of digital transformation, we changed the conventional approach of production and management, boosting employee happiness, increasing production efficiency and management quality. Furthermore, we positioned talent team building as the core strategy to stimulate employee vitality and broaden development channels.

Ramping up efforts for technology-based safety inspection and innovation-driven development.

We established the world's largest digital platform for new energy operation which has been recognized as a pilot project by the State-owned Assets Supervision and Administration Commission. We created visual sites, integrating 74,000 cameras with an access ratio of 100%. With the launch of the CHN Energy Sharing Platform, we developed the world's first floating wind power-aquaculture integration project. The hydrogen production and synthetic ammonia project in Alashan, demonstrated our implementation of the integrated solution " utilize green hydrogen to consume hydrogen electricity; utilize hydrogen ammonia to consume green hydrogen" and explored a new energy development path based on self-consumption.

Driving low carbon emissions and symbiosis through green development. Adhering to the sustainability concept that "lucid waters and lush mountains are invaluable assets", we are committed to becoming a model of green transformation and active practitioners in achieving carbon emission peak and carbon neutrality. In 2023, we made remarkable achievements in scalable development and reinforced our role as a forerunner in the green energy sector. We kept developing "New energy+" projects with application of technology and model innovation. Concurrently, we gained a leading position in base projects. Alongside the successful grid connection of the Phase I project in Tengri, Ningxia Region, with the full capacity of 1 GW, our Phase II project of 2 GW was commenced as scheduled, and part of the Badain Jaran-Dunhuang "Photothermal+" project in Gansu Province, was put into production.

Emphasizing talent development based on the people-oriented concept. We respect every employee, attract and retain talent in an open, equal, and inclusive attitude, provide comprehensive protection for employees' legitimate rights and interests, and create a comfortable and harmonious workplace. In 2023, We enhanced our talent utilization mechanism based on solid work and practical results, and built professional talent team, adopted diverse methods for talent development. Additionally, we expanded the career development channels for technical track employees and laid a solid foundation for the Company's high-quality development.

Performing responsibilities and promoting mutual benefit and common prosperity. As a "leader of inductor chain" we advect for group

"leader of industry chain", we advocate for green low-carbon development of the industry chain, and deepen the strategic cooperation among industrial partners. We flagged demonstration project for consolidating rural revitalization of Youyu County, Shanxi Province. The year 2023 is also the tenth anniversary of the 'Belt and Road Initiative'. This year, we dedicated ourselves to providing clean energy in South Africa, contributing affordable and clean electricity.

Forging Ahead with Constant Efforts. Longyuan Power will firmly strive for the strategic goal of becoming a global leader in new energy, unswervingly push forward high-quality development, enhance sustainability, and contribute to the new energy industry.

Longyuan Power

About Longyuan Power

Founded in 1993, China Longyuan Power Group Corporation Limited is the earliest specialized company to develop wind power in China and leader in exploring wind power fields such as offshore, low wind velocity and high altitude in China. It took the lead in "going global" in the whole industry chain of wind power in China and keeps leading industry development and technological advance. In 2009, it was listed on the Main Board of the Hong Kong Stock Exchange. In 2022, it was listed on the A-share market, becoming a company listed in both Shenzhen and Hong Kong stock markets.

Longyuan Power has grown into a large comprehensive group of power generation specializing in developing and operating new energy. It owns diverse energy projects, such as wind, photovoltaic (PV), tidal, geothermal, and thermal power generation. Its business expands in 31 provinces and municipalities in China as well as foreign countries, such as South Africa and Canada, and makes postive contributions to the green low-carbon energy development and use of renewable energy worldwide.

As of the end of December 2023, the Company's consolidated installed capacity amounted to 35,593.67 MW, including 27,754.39 MW of wind power, 5,964.28 MW of other renewable energy, and 1,875.00 MW of thermal power. Its revenue and assets totaled RMB37.64 billion and RMB229.92 billion, respectively.

Mission	To devote to clean energy for a beautiful China
Vision	To become a world-class new energy company with global competitiveness
Core Values	Endeavor, efficiency, innovation, harmony





RMB**37,642** million Total revenue

RMB **117.80** billion Total market value

27,754.39 MW Wind Power installed capacity 35,593.67

Total consolidated installed capacity

94.73%

Proportion of renewable energy in the total consolidated installed capacity

⁽¹⁾ : The financial data in this report prepared in accordance with IFRSs (International Financial Reporting Standards) issued by IASB (International Accounting Standards Board).

Honors of 2023 (Awards)



Data of 2023



Fulfillment of Undertakings: Our Actions in 2023

	Undertakings in 2022	>	Fulfillment of undertakings in 2023
Dedicating to quality clean energy	We comprehensively improve the scale and proportion of wind power development, accelerate the development of offshore wind power clusters, proactively strive for replacing smaller units with larger ones and other capacity increase transformation, plan new energy base projects in heavy carbon industry areas, innovate the "new energy + " project, continue to explore new natural economic models, and promote the natural benefit of energy transformation.		This year, the Company obtained the development rights for 19,840 MW of new energy projects, up by 8.02% year on year (YoY). We also obtained the development rights for 900 MW of offshore wind power projects in Fujian, Guangdong and Shanghai. The first batch of projects of replacing small- capacity units with large-capacity units were put into production in Guangdong and Ningxia. The new integrated natural economic model was practiced in the procjects in multiple places, such as Gansu and Ningxia, to improve the efficiency of resources per unit.
Enhancing safety foundations	To improve digital regulatory efficiency, we establish a three-level risk classification video monitoring system at the departmental, corporate, and plant levels. We also conduct in-depth data mining analysis, expand the scope of meteorological data collection, continuously optimize power forecasting technology, and promote the transformation of "digital resources" into "data assets", enabling data to better empower business and advance development.		Visual sites were created based on the video monitoring system by risk classification. The scale of stations connected to the digital production platform was raised and cumulatively exceeded 42 GW. Real-time dynamic monitoring was achieved based on 74,000 cameras. The Company also collected more data from meteorological measurement points and formulated meteorological maps. By benchmarking advanced algorithms, we raised the power prediction accuracy by 0.5%-1%.
			prediction accuracy by 0.570-170.

Intensifying the ability of technology innovation



We focus on "consolidating advantageous technologies, exploring innovative technologies, and solving practical problems", while increasing investment in science and technology and R&D. Meanwhile, we endeavor to complete and put into operation the floating wind and fishery integration project, explore non-electric use of new energy, conduct analysis on submarine cable fault warning and research on the application of laser technology, and innovate the distributed photovoltaic intelligent operation and maintenance mode. The annual R&D investment stood at RMB 237.09 million, rising by 113% over last year. We installed the CHN Energy Sharing Platform, the world's first floating wind power-aquaculture integration project, created a distributed PV management platform, developed a PV operation and maintenance App, and proposed new unintelligent operation and maintenance models.

Undertakings in 2022

Fulfillment of undertakings in 2023

Upholding security in green ecology



We promote green energy in line with healthy ecology, practice harmless recycling and resourceful utilization of new energy solid waste, explore resourceful circular economy industrial model and layout of new energy industry, and realize coordination between economic and social development and population, resources and environment. The Company actively completed the demonstration of cross-regional transfer and reuse of machines and ecological restoration management after the old units on Helan Mountain, Ningxia, were removed, launched China's first platform for managing new energy waste materials, coordinate the recycling demand of old wind farm units, and provide fast, efficient, and intelligent solutions for the state identification, gradient utilization, and tracking and tracing of new energy waste materials.

Contributing the harmonious Society



We take more care of employees in remote and hardship areas. Combining with the rural revitalization strategy and "Wind Riding" and "Brightening" campaigns, we explore new cooperation models such as energy cooperatives and collective land for equity Thanks to digital development, more stations required fewer or even no persons on duty, which significantly reduced the duty time of employees working in wind farms in remote areas with scarce resources and raised their sense of happiness. Additionally, the first batch of three "Health Huts" were constructed in alpine and remote areas. RMB 3 million was invested in Youyu County, Shanxi Province to construct an ecological sheep breeding base to help local farmers increase income.

Improving corporate governance capabilities



We continuously deepen the construction of compliance management system, launch and implement ESG series actions, systematically carry out ESG training on hot topics and ESG key indicators, and strengthen the ESG awareness of all employees. Special policies, such as the Compliance Management Regulations (Provision), were formulated. A standardized, perfect, and feasible policy system has been created, covering 418 policies. Meanwhile, we deeply studied ESG issues and key indicators and optimized the indicator system. Special training covering all employees was conducted, and a series of innovative ESG videos were produced. A case collection competition was held to strengthen all employees' awareness of ESG.

ESG Governance

Longyuan Power combines ESG with the development strategies for the "14th Fiveyear Plan" period. It conveys the ESG concept, raises all employees' awareness of ESG, and systematically promotes ESG in 2023. Remarkable achievements were made in improving the organizational structure, consolidating the management basis, enhancing capabilities, and expanding exchange and dissemination.

ESG Statement of the Board of Directors

The Board of Directors is the body for ESG decision-making management and supervision. It takes charge of ESG strategic planning, risk management, and the decision-making and arrangement of major issues, and reviews and approves the Company's key ESG policies, medium- and long-term strategic planning, and annual ESG reports. The Sustainable Development Committee, under the Board of Directors, assists the former in overseeing and managing the implementation and performance of the Company's key ESG topics, and regularly reports to the Board of Directors.

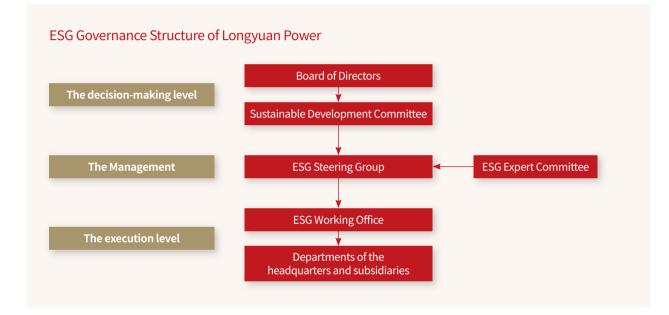
The Board of Directors attaches great importance to the management of ESG performance. The Company has incorporated the performance of important topics, such as new energy project development, ecological protection, environmental governance, technological innovation, social welfare, production safety, and compliance management, into appraisal assessment and linked it with the remuneration of senior management personnel. The Board of Directors oversees the progress of the target performance on an annual basis.



ESG management Improvement Training

ESG governance structure

During the reporting period, in order to better meet the Company's sustainable development and enhance ESG governance, Longyuan Power further perfected the top-down governance structure with three-level linkage and professional support, and clarified the responsibilities and tasks of the Board of Directors in decision-making and supervision, the Management in promotion, and the departments of the headquarters and subsidiaries in execution. Furthermore, we worked with external experts and established the ESG Expert Committee to provide think-tank support for ESG governance.



ESG planning and implementing

The Company formulated the *Three-Year Plan for ESG Development (2023-2025)*. Guided by the idea that ESG empowers high-quality development, it is committed to becoming a leader in the green high-quality development of the new energy industry chain.

In 2023, we performed ESG concept promotion activities and training, covering all subsidiaries and employees, offered separate thematic training for ESG responsible persons, press and publicity personnel, and new employees, and guided our employees to produce and publish a series of 10 videos, such as "ESG Practices" and "What is ESG", which were clicked on more than 100,000 times on all platforms. Meanwhile, we promoted the integration of the ESG concept into the entire process of project planning, construction, production, and operations. The "Sand-to-Oasis" Tengri new energy base project in Ningxia was included in the Annual ESG Excellence Practice Report of CMG.

Stakeholder Management

We highly stress good communication with all stakeholders, and the demands made by stakeholders are an important driving force to promote the Company's ESG management practices. Through multiple channels, such as roadshows, forums, summits, the official website, and we media, the Company has established a normalized communication mechanism with the government and regulators, investors, employees, customers, industries, experts and scholars, and community and media. Face-to-face exchanges were made with investors on sustainable development topics, such as climate and employees, to actively respond to their expectations and demands. During the reporting period, we actively disseminated our latest progress in ESG practices through high-end summits and platforms, such as China Media Group and Fortune China's ESG Summit.

Stakeholders	Expectations and demands	Communication channels and methods
Government and regulators	 Taxation Employment Compliant operations Special meetings and reports 	 Supervision and inspection Work reports Statistical statement
Investors	 Return on investment Corporate governance Compliant operations 	 General Meetings Information disclosure Email and telephone inquiries Roadshows Reverse roadshow
Employees	 Legitimate rights and benefits Occupational health and safety Career development Work-life balance 	 Employee Representative Conference Employee complaint channels Employee satisfaction surveys Employee symposiums
Customers	 Green and clean products Compliance with contracts Corruption-free business environment 	 Agreements and contracts Symposiums Customer visits Feedback and consultation Service activities
Industries, experts, and scholars	 Green supply chain Win-win cooperation Compliance with contracts Corruption-free business environment 	 Strategic cooperation Visits of senior management personnel Experience sharing Industry communication Formulation of standards
Communities and media	 Environmental protection Charity and public welfare Promotion of sustainability Information transparency 	 Charity activities Community activities Visiting communities Official website or WeChat official account Open Day

Evaluation of Material Issues

In accordance with the principle of "double importance", based on the process of "identification - assessment - approval", the company initially identified substantive issues by referring to domestic and foreign ESG disclosure standards, industry macro policies, peer practices, and combined with the actual situation of the company. Through the questionnaire survey on substantive issues of stakeholders, the importance of the issues will be assessed with full consideration of foresight, relevance, feasibility and concern, and the substantive issues of Longyuan Power will be formed. Then, the matrix is finalized by the ESG Expert Committee, and submitted to the Sustainable Development Committee for approval.zz

Environment	01 02 03 04	Renewable energy opportunities Environmental management Biodiversity protection Use of resources	05 06 07	Response to climate change Waste treatment Pollutant emissions
Social	08 09 10 11	Technological innovation Occupational health and safety Product responsibility Community feedback	12 13 14	Employee development and training Supply chain management Equal employment
Governance	15 16 17	Business ethics Corporate governance Risk management	18 19	Internal audits Stakeholder management





RESPONSIBILITY: Consolidate the Governance

We continuously deepen corporate reform, take practical measures to improve the management system and capability, and keep perfecting the internal governance structure. Meanwhile, the Company endeavors to make the management system fully fledged and compliant, conforms to business ethics, and creates a trustworthy corporate image.

Improve corporate governance

12 Specialized committee meetings

144 Proposals reviewed by three board

35 Investigations by the Board We strictly abide by the Company Law of the PRC, Securities Law of the PRC and domestic and foreign regulatory requirements, build a governance structure with clear positioning, powers, responsibilities and standardized processes, standardize the construction of the board of directors, strengthen investor relations management to achieve stable operation and value creation.

Operation of The Board of Directors

We stick to board diversity, comprehensively consider factors, such as gender, age, cultural and educational backgrounds, professional experience, skills, and industry position when nominating members of the Board of Directors, and continue to improve the system of specialized committees. Currently, we have seven directors, wherein three are independent directors, one female independent director among the independent directors. Our directors have rich experience in the energy industry, risk management, and financial management, and provide professional advice on decision-making to the Board of Directors.

The Company elects and engages independent directors in strict compliance with the election procedures and appointment conditions stipulated in the Work Policy for Independent Directors by CSRC. Independent directors express independent views on matters that may affect the rights and interests of minority shareholders, such as related party transactions and external guarantees. During the reporting period, in order to further strengthen the duty performance of directors and continue to enhance the rationality of decision-making by the Board of Directors and specialized committees, the Company's directors participated in three professional trainings on the themes of securities compliance, capital operation, and independent director policies. The Company organized the Board of Directors and the Supervisor Board to conduct two collective investigations and 33 personalized investigations.



Structure of the Board of Directors

Protection for shareholders' rights and benefits

The Company stresses the protection of rights and benefits of all shareholders. We continue to improve the mechanism for capital market information feedback, deeply exchange with shareholders and potential investors, and protect the rights of minority shareholders, while creating value for shareholders.

During the reporting period, the Company held an online briefing on its annual results on the platform of the Shenzhen Stock Exchange. It organized the "Toward the Wind" reverse roadshow, attracting 34 representatives from investment institutions to visit the Darbancheng wind farm in Xinjiang. Moreover, we maintain close communication with investors and create a model of investor interaction that is thoughtful and high-frequency, through many channels, such as brokers strategic meetings, reception of investors for online and offline investigations, Interaction Easy of the Shenzhen Stock Exchange, and investor hotlines.



Briefing on Results and ESG Report Release Conference

Contact Information for Investor

Investor hotline: (86)10-6388 8199 Investor fax: (86)10-6388 7780 Email: lyir@ceic.com

Enhance compliance

With the support of the compliance culture and effective supervision, we promote the building of the compliance system, continuously perfect the risk management system, and strengthen internal and external risk control.

Compliance Management

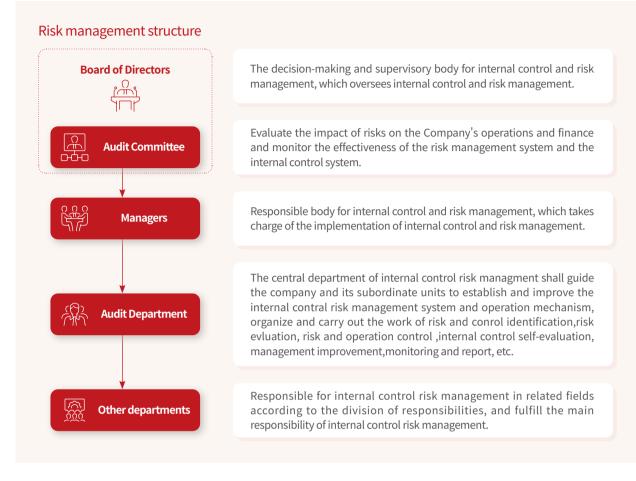
The Company implemented the plan for building a law-based enterprise, established the Compliance Management Committee, and set up the post of chief compliance officer. Compliance requirements were incorporated into business procedures and key processes, and efforts were doubled to promote the fulfillment of compliance management responsibilities of the "three lines of defense" business departments, compliance management departments, and disciplinary inspection and audit departments. Additionally, *the Guide to the High Risk Prevention and Control in New Energy Projects and Key Points of Policy Compliance (Provisional)* was formulated, and preventive measures and guidance were given to subsidiaries in terms of risk compliance.

Risk control

Relying on the risk management organization commensurate with the modern enterprise governance structure, the Company focuses on the supervision and inspection of key areas and explores the "1+N" audit model--taking the economic responsibility audit as a carrier, and simultaneously conducting special audits, such as engineering and construction, offshore business, and rural revitalization. It formulated the Provisions for Internal Control and Risk Management, the internal control and risk management manual for the new energy industry, and the key risk management fascicule covering 18 core risks and key control measures to further improve the risk control system.



A technician was debugging cybersecurity equipment



The Company assesses risks in development strategies, market competition, financial position, management and operations, and legal compliance every year. It analyzes the causes of risks and establishes the corresponding strategies by rating and category, in accordance with its risk appetite and tolerance. *The Annual Major Risk Assessment Report of Longyuan Power* was completed in 2023 to refine control measures, continue the quarterly monitoring of major operating risks, and systematically reinforce risk resistance.

During the reporting period, the main categories of risks we identified include but are not limited to:

Category	Risk Identification
Strategic risk	Industrial policies, industry development status
Market risk	Market competition, price and supply-demand changes, and upstream and downstream of the industry chain
Financial risk	Profitability, solvency, cash flows, and financial management
Operating risk	Risk of natural disasters that cause losses to the Company, product quality, production safety, employee health, and environmental protection
Legal compliance risk	Adjustments and changes in laws, regulations, and regulatory requirements, and legal compliance in business operations

Abide by business ethics

The Company has a policy of zero tolerance for any violation of business ethics. We have established comprehensive management measures and monitoring mechanisms for business ethics, created a honest and transparent environment of business ethics on the basis of compliance.

Anti-bribery and anti-corruption

We are committed to building an integrity cultural system of "Honest Longyuan with Transparent Environment". We formulated *the Work Measures for Discipline Inspection* and *Supervision and the Clean Practice Guide* and revised them according to the actual situation. The Company constantly raises the awareness of business ethics of its employees. The company organized "publicity and education" campaign for a month to improve the integrity culture. Supervision and inspection were conducted over key areas and processes. A warning education conference was held. Employees watched warning education videos. Furthermore, we strengthened the consciousness of business ethics in the ideology and action for employee. During the reporting period, the Company organized seven directors , 255 senior and middle management personnel, and 4,029 grassroots employees to participate in business ethics training. No business ethics violations occurred throughout the year.

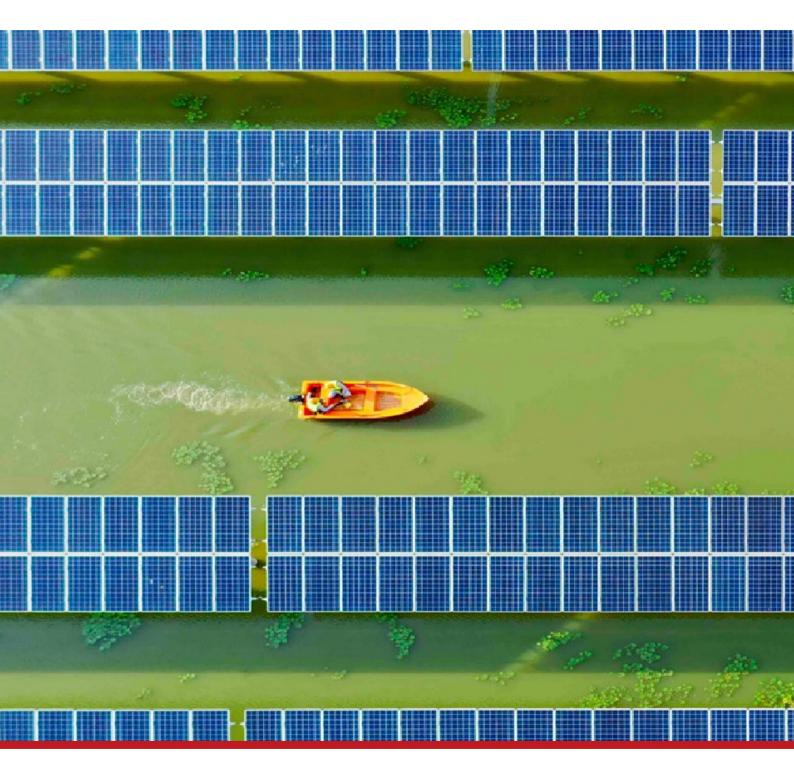


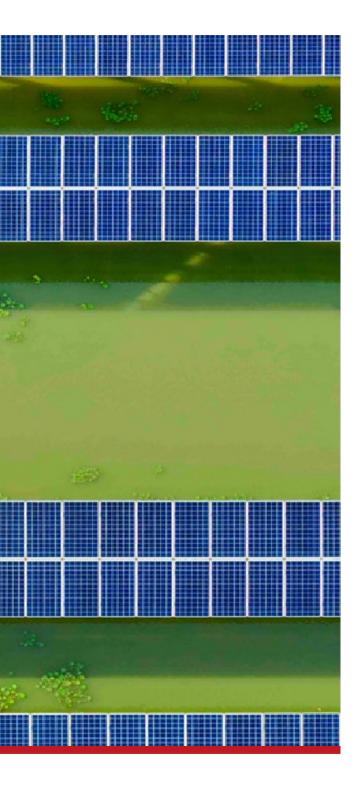
Longyuan's Sunjiaying Wind Farm in east Inner Mongolia

Complaint reporting channel: Whistleblowing email: p0014898@ceic.com We strictly implemented *the Measures for Management and Handling of Petition and Whistle-blowing Matters and Clues of Longyuan Power*. Cadres and the public can report through the public email address. Rule-violating personnel, if any, will be handled in accordance with laws and regulations. Meanwhile, the Company strictly prohibits the personal information of whistleblowers from leakage and protects their legitimate rights and interests.



Party member volunteers from Liaoning Branch of Longyuan Power were hearing a veteran's stories in the War to Resist U.S. Aggression and Aid Korea





GREEN: Dedicate to Clean Energy

We remain committed to the development strategy of "tailoring strategies for each province", actively consolidates its leading edge in new energy development, continuously enhances its technological innovation capabilities to accelerate the transformation of achievements and spearhead the advancement of the new energy industry.



Consolidate development advantages

19,840 MW

Newly-added New energy development quota

4,509.83 MW Newly-added installed capacity



The Company capitalizes on development opportunities in the new energy industry, strengthens the development advantages of quantity、 stability and quality with diversified, rapid and innovative renewable energy, continues to explore the "New Energy +" development model. Contributing tangible efforts to the national energy transformation through actions.

New energy development

We adhere to scale development, continuously open up new energy bases, and consolidate our leading position in the wind power industry while meeting the clean energy demand for large-scale growth in the future. In 2023, we acquired new energy development quota of 19,840 MW, and the consolidated installed capacity of new energy reached 33,718 MW. Further advancing towards the strategic goal of doubling the scale during the *"14th Five-Year Plan"* period.

- Hainan Dongfang CZ8 Site 500 MW Offshore Wind Power Project was approved
- The 1 GW Offshore Wind Power Project in Sheyang, Jiangsu was approved
- The Phase II 2 GW Photovoltaic Project of the National Energy Group Ningxia Tengri Desert Scenery Renewable Energy Base officially started



Tengri Desert "Shagehuang" New Energy Base project in Ningxia

"New Energy+" model

The Company continues to broaden the scope of "power generation + industry", successfully integrating power generation with sectors like agriculture, tourism, and aquaculture, to promote diversified and integrated energy utilization and enhance the efficiency of resource utilization per unit.

"Water-based Power Generation, Solar Evaporated Salt, and Underwater Aquaculture"

The Tianjin Haijing Salt-PV Complementary Solar Project integrates traditional aquaculture, salt production, and new energy, which maximizes the utilization of salt field resources while preserving land characteristics, salt field yield, and the ecological environment. This creates a "salt-lightfish complementary" ecological model featuring vertical circulation, significantly enhancing resource utilization efficiency. The project generates approximately 770 MWh of green electricity annually, capable of powering 320,000 households for one year. Additionally, the photovoltaic panels provide shading on the water surface, aiding in boosting revenue and efficiency in aquaculture.



Tianjin Salt-PV Complementary Solar Project

'Clean energy, Wind Turbine Park"



Guangdong Branch of Longyuan Power Eling Wind Farm Winter view

This project cleverly integrates new energy with the tourism industry, and the wind power infrastructure creates conditions for the development of the hilltop park, and the wind turbine becomes one of the attractions. The whole project construction closely revolves around the "park" standard, and leverage tourism companies to increase investment in the local, attract market teams, and drive the rapid development of the tourism industry. Wind turbine Park has set a monthly record on reception of more than 20,000 visitors, revenue of more than one million RMB.

Lead technological innovation

4 National standards

11 Industry standards

88 Newly-added patent applications

The Company strengthens the top-level design of science and technology innovation, enhance the research increase in key areas, key projects technology, continues to promote the digital transformation and upgrading, to participate in industry standards, keep Industry demonstration and leading position.

Technological innovation

With the objective of establishing an "innovation-driven" New Longyuan Power, we have unveiled guidelines such as the *Longyuan Power's 14th Five-Year Plan for Technological Innovation and the Implementation Plan for Building a Technological Leading Enterprise*, and formulated the *Management Measures for Technological Projects of Longyuan Power* to reinforce the top-level design. To deepen the construction of the innovation system, we have expanded and formed a "1+1+4+N" innovation system, fully leveraging the advantages of the China Energy Wind Power Operation Technology R&D Center. We are committed to advancing the transformation and application of research outcomes, establishing assurances and incentive mechanisms for commercialization of domestic accomplishments, and breaking the foreign monopoly in the "last mile".

- The installation of the world's first floating wind-fishery integration project, CHN Energy Sharing Platform, was completed.
- 4 national standards and 11 industry standards, edited or co-edited by Longyuan Power, have been successfully released, addressing gaps in related standards within the domestic wind power industry.
- The research outcomes of *the policy research project Study and Practice* of *Electro-Hydrogen Coupling Strategy in Large-Scale Wind-Solar Bases Enhancing Clean Energy Consumption* in Alashan was achieved.
- The achievement transformation of the modeling and simulation for 10 largescale wind and PV power plants was accomplished.
- The project for the harmless recycling and resource utilization of solid waste was completed, with the development of the key formula for the crushing and regeneration technology of waste turbine blades proving successful.

Digital transformation

The Company adheres to the principle of "shaping advantages with digital technology", proactively driving forward digital transformation and upgrading. We accelerate the deep integration of technology in the new energy industry and information technology, with digital platforms being accessed by stations totaling over 42 GW, significantly enhancing data quality.

We promote talent sharing in production

Through the establishment of 29 operational subsidiaries, we break down administrative barriers at depots by implementing initiatives such as "separating operation and inspection, regional maintenance, and specialized upkeep" to facilitate the sharing of human resources in production. The number of unmanned or lightly manned depots has increased, and employees in remote and harsh areas are gradually relocating to urban centers.

Efforts are made to improve equipment reliability

Through multidimensional benchmarking analysis of equipment reliability and turbine performance, with a specific focus on addressing the top five equipment defects, we shift from reactive maintenance, which includes addressing human-related inefficiencies, to predictive maintenance. Wind power generators with long-term operations of 300 days or more now comprise 61.69% of our portfolio, reflecting a year-on-year increase of 25 percentage points. Additionally, we have implemented 16 new fault early warning models for wind turbines, effectively transitioning from "alarms" to "early warnings".

Digital empowers security monitor

The platform video access rate is 100% achieved Visual sites, The remote video upgrading control of high-risk operations throughout the year effectively strengthens the digital online control of personnel and equipment, highly reducing the probability of security incidents.



"Visual sites" system display

97%

Wind power utilization rate

121 hours

Number of wind power utilization hours above the industry average[®] ①: Statistic data from China Electricity Council

51.91%

Wind turbine failure duration decreased compared with the previous year





NATURE: Practice Ecological Conservation

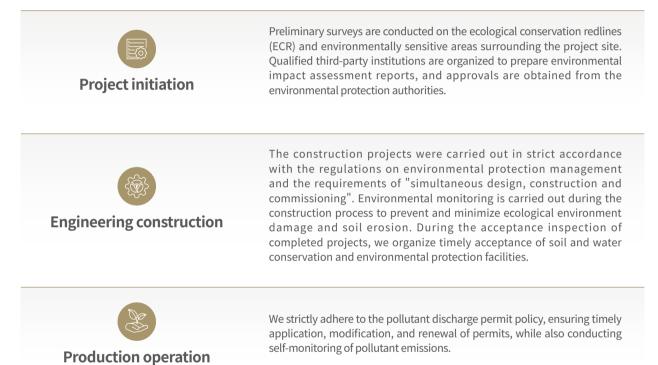
We actively carry out the practice of ecological restoration, environmental governance and coping with climate change in the project area.We are dedicated to becoming demonstrator of green transformation and development, as well as practitioner in advancing carbon peaking and carbon neutrality.



Strengthen environmental governance

The Company complies with the *Environmental Protection Law of the People's Republic of China* and other relevant laws and regulations and formulates environmental management measures covering the entire lifecycle of projects. We are dedicated to reducing pollution and waste generation, optimizing resource utilization efficiency, managing waste disposal, and fostering green office practices, thereby turning sustainable green initiatives into a reality.

The Company implements ecological and environmental protection measures throughout various stages, including project initiation, engineering construction, and production operation.



Pollution prevention

The Company complies with the *Environmental Protection Law of the People's Republic of China* and other relevant laws and regulations. From the coal allocation, combustion adjustment, facility operation and maintenance and other aspects of control, to ensure ultra-low emissions, there is no excessive emissions of thermal power units throughout the year.

The primary pollution sources in the new energy business stem from dust and waste generated during construction. Waste generated during construction is utilized for backfilling and site leveling, followed by later greening and coverage. Tarpaulins are used to cover soil, construction materials, and construction debris, while construction roads are covered with clay-bound macadam surfaces to minimize dust pollution.

Water resources management

The Company strictly adheres to water usage policies, ensuring compliance with strict constraints on water resources and adjusting production in line with water availability. We conduct thorough inspections to verify the completeness and compliance of administrative permits for water usage, thereby eliminating instances of "unauthorized" or "excessive" water usage . Additionally, two thermal power enterprises under the Company's oversight strictly adhere to industry standards for water efficiency, conducting regular water balance tests as mandated, and thoroughly exploring potential water-saving measures.The combination of classified treatment and centralized treatment is adopted to strictly manage wastewater.

9,368.9 thousand tons Total water consumption

100 % Industrial wastewater recycling rate

Waste disposal

In strict accordance with the local laws and regulations such as *the Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste*, the Company introduces new hazardous waste management measures that cover the entire process from generation, collection, storage, transportation, utilization, to disposal, aiming to standardize disposal procedures, improve efficiency, mitigate disposal risks, and minimize threats posed by waste to the soil, water sources, air, and other ecological environment, as well as the human health.

		Data of 2023		Changes from 2022 $^{\odot}$	
		Total tCO2e	Density(g/kWh)	Total tCO2e	Density (g/kWh)
	Sulfur dioxide	514.99	0.045	-90.15	-0.006
Pollutant emissions	Nitrogen oxides	1,201.13	0.106	-189.83	-0.012
	Dust ²	61.45	0.005	10.88	0.001
Utilization of water resources	Water consumption ³	9,105,953.00	882.378	56,981.00	114.378

Pollutant emissions and water usage in thermal power operations

⁽¹⁾: "-" means that the data is lower than 2022

⁽²⁾: Dust emissions rised in 2023 due to the increase in ash from coal combustion.

 $^{(3)}$: Due to the increase in deep peak shaving time of thermal power units, water consumption increased in 2023

General waste recycling

We have improved and updated the "Ecological and Environmental Management System" on solid waste prevention and control, and clarified the requirements for the supervision and management process of solid waste prevention and control, as well as the collection, storage, transportation and utilization of solid waste. Facing the forthcoming "scrap-intensive period" of wind turbines and photovoltaic modules, the Company is taking proactive measures by augmented our investment in scientific research and development for the recycling and processing of scrapped wind turbines and photovoltaic modules. with the goal of achieving a fully closed-loop green development lifecycle.As a pioneering initiative, we constructed a pilot factory for recycling scrapped turbine blades in Liaoning Province, with production slated to commence in 2024.

New Energy Waste Material Management Platform

The first domestic New Energy Waste Material Management Platform, independently developed and launched by Longyuan Power, was officially introduced in 2023. This platform boasts unique features for material status identification and cascade utilization, enabling realtime tracking of various waste material quantities, statuses, sources, and reuse possibilities. As a result, it facilitates intelligent statistical analysis and traceability in waste material management, contributing to the dual enhancements in waste material recycling and electricity generation revenue. Moreover, it bridges the "last mile" constraint of the closed-loop development of the wind power industry chain, thus serving as a demonstration of the circular and efficient utilization of retired wind power generators.

Disposal of hazardous waste



0.03 tons/million revenue Hazardous waste intensity Hazardous waste mainly consists of waste oils and used batteries from the new energy business. The Company has improved its hazardous waste prevention and control system, strictly implementing declaration and registration, ledger management, transfer forms, operational permits, and other related regulatory requirements. Efforts have been intensified to enhance the management of temporary storage facilities of hazardous waste to ensure the 100% safe disposal of hazardous waste.

Green office

The Company achieved green electricity consumption by constructing the rooftop distributed photovoltaic systems and purchasing green power certificates. As a result, our headquarters building was awarded the title of "Green Power Demonstration Building". We conducted energy-saving renovations of air-source heat pumps and refrigerators to promote efficient resource utilization from the source. Additionally, we upgraded and expanded electric vehicle charging stations in office buildings, thereby advocating for green and low-carbon transportation.

Responds to climate change

4.25 million Volume of green certificate trading

1,723,560 MWh Green power trading

Climate change has become a common challenge faced by the world. The low-carbon transition of the international community is imminent. International consensus, such as the "Sunnylands Statement" and "the UAE Consensus", has once again defined the growth target of renewable energy, and new energy is facing unprecedented historical opportunities. Longyuan Power enhances its capacity to address climate change by optimizing project designs, improving the accuracy of power forecasts, and promoting technological innovation to reduce losses caused by extreme weather events.

Governance mechanism

The Sustainable Development Committee under the Company's Board of Directors convenes regular meetings to investigate and oversee climate change-related risks. It engages climate change experts to form an advisory committee, conducts specialized seminars, enhances climate change analysis and assessment, and develops corresponding mitigation strategies.

Strategy

Adhering to regional new energy development and construction strategies, the Company intensifies efforts to develop new energy sources to maintain advantages in resource acquisition. By promoting technological innovation in wind and photovoltaic design and management and conducting analysis and research on meteorological data, we have enhanced power generation certainty, advanced greenhouse gas inventory, and strengthened the carbon asset management work.

Risk management

The Company incorporates climate risks into the comprehensive risk management process, continuously optimizing and improving related regulations and systems to strengthen climate risk control. We identify physical risks, transition risks, and potential opportunities related to climate change, assess the impact of short-term and long-term risk opportunities on the Company's core business, and propose targeted measures accordingly.



Longyuan Wind Farm during winter season

Analysis of Climate Change Risks and Opportunities

Risks/Opportu	nities Category	Name of Risks/ Opportunities	Impact of Risks/Opportunities on Business
Physical risks	Short-term risk	Extreme weather	 The occurrence of extreme weather events such as extreme low temperature and freezing will mainly affect the stability of wind turbines and photovoltaic modules, resulting in unit damage Annual power generation from wind power and photovoltaic power stations decreases
	Long-term risk	Continuous rise in average temperature	 Increase the probability of forest fires
	Policy and legal	Emission reduction are becoming stricter	 The operating costs of two thermal power companies may rise
	risk	Ecological conservation policies are becoming stricter	 Increasingly stringent national ecological conservation policies pose new challenges for the development of new energy projects, leading to higher compliance costs
Transition risks	Market Risk	Renewable energy development is highly competitive	 Major energy enterprises are vying for high-quality wind and solar resources, which increases the difficulty of project development; Increase Stability development of renewable energy is quite challenging, Higher standards for the research and application of new energy storage technologies
	Technologyrisk	Increasing technological challenges	 The technical requirements of complex scenes are constantly increasing; With the increase of low-carbon demand in the whole industrial chain, , the Company's investment in the research and application of low-carbon technologies will increase
	Energy	Opportunities of renewable energy	 Against the backdrop of "Dual Carbon" goals, the renewable energy market has enormous development potential
	development	Carbon market trading	• The implementation of <i>the Administrative Measures for Carbon Emissions Allowance Trading (Trial)</i> provides guidance for the Company's participation in carbon market trading
Opportunities	Product & Consumer's	preference for low-	 Demand for green power across society is rapidly increasing
	Financing channels	Green financing	 The central and local governments, along with banks, are increasing financial support and reducing financing costs for enterprises

Coping Measures

- Project layouts are scientifically optimized across the country to balance the proportion of project development in regions affected by different climates
- Meteorological data analysis is conducted with the digital platform for new energy production to enhance the certainty of new energy generation
- Emergency plans to prevent extreme weather-related incidents are formulated
- Emergency plans related to high temperatures will be formulated and emergency drills will be regularly organized
- Orderly carbon emission online monitoring will be conducted for the two thermal power enterprises under our jurisdiction to advance energy-saving and emission reduction renovations and accelerate the low-carbon transformation
- Strictly follow the environmental and ecological protection requirements throughout the project lifecycle to ensure compliance with laws and regulations
- Innovative energy storage technologies will be developed
- Comprehensive development and utilization model of "New Energy+" will be adopted A new natural economic model that benefits from nature will be devised
- Study and determine the direction of new energy development, Focus on the forefront
 of new energy industry such as long-term energy storage, deep sea, and large bases,
 strengthen digital and intelligent research, and promote the transformation of scientific and
 technological innovation achievements into new quality productivity.
- By combining wind and solar power, complementing with multiple energy sources, and exploring an integrated model of hydrogen and ammonia, we will achieve large-scale and diversified development of new energy
- The Company will actively conduct inventory of greenhouse gas and complete the compliance clearance as required by the country
- Efforts will be made to advance the China Certified Emission Reduction (CCER) projects
- Increase cross-provincial delivery and green electricity trading efforts, grasp the "source, network, load, hydrogen storage" and other technological innovations, innovate marketing models, and strive to open up incremental markets.
- The operation safety and stability of renewable energy projects will be ensured to guarantee energy supply
- Green bond with low interest rate will be issued to meet the growing demand for green investment

Indicators and objectives

The main sources of greenhouse gas emissions for the Company are the carbon dioxide emissions from its two thermal power enterprises. We continuously track and monitor emissions, compile and disclose relevant indicators to lay the foundation for setting reasonable greenhouse gas reduction targets.

Precision Defense against Typhoon "Kanu" and Effective Management of Extreme Weather

In August 2023, faced with the unpredictable Typhoon "Kanu", Longyuan Power's Zhejiang subsidiary swiftly activated its contingency plan for typhoon and flood prevention. Responding to the development and trajectory of the typhoon, the Company promptly upgraded its emergency response level.In order to ensure the safe and stable operation of the equipment, the Tidal-solar complementary intelligent photovoltaic power station carried out special inspection of the photovoltaic panels in the reservoir area before the typhoon, checked and checked the assigned value of the relay protection, and measured the temperature of the cable joint with a thermal imager. By the time "Kanu" had passed, the Company had incurred no casualties or equipment damage. It successfully generated an accumulated emergency electricity output of 4,630 MWh, thus winning the defense battle against the typhoon.



Employees carry out contingency plans in response to typhoon

Greenhouse gas emission from thermal power business

	Data of 2023		Changes from 2022 $^{\odot}$	
	Total tCO2e	Density(g/kWh)	Total tCO2e	Density(g/kWh)
Total greenhouse gas emissions	9,950,660.00	832.13	-280,051.00	-3.19
Scope I	9,948,567.66	-	-278,106.34	-
Scope II	2,092.34	-	-1,944.66	

⁽¹⁾: "-" means that the data is lower than 2022

Protect the ecological system

While actively and steadily promoting the energy transformation, the Company is committed to the protection of ecosystem. We explore a sustainable project model, of "new energy + ecological restoration," collaboratively advancing ecological restoration to achieve the symbiosis of wind power, photovoltaics, and ecological environment.

Advance ecological restoration

Upholding the ecological concept that "lucid waters and lush mountains are invaluable assets", the Company comprehensively advances ecological protection and restoration efforts. During the construction of large-scale photovoltaic bases, we accelerated the implementation of sand prevention and control measures and photovoltaic integration projects in multiple locations. Throughout the construction phase of all projects, we followed the soil and water conservation requirements and carried out erosion control measures. During production and operation, timely maintenance was made to roads at wind power sites to achieve a balance between development and conservation and promote development through conservation.During the construction of large-scale photovoltaic bases, the integration project of sand prevention and control measures and photovoltaic integration was implemented.

"Photovoltaic Sand Control": Generating Electricity on Panels, Planting between Panels, and Restoring under Panels

The Tengri Desert "Shagehuang" New Energy Base project in Ningxia achieves both green energy generation and desert control, with significant ecological, economic, and social benefits. Since its completion in 2023, five types of grass seeds suitable for deserts, such as sand oats, have been sown. Through natural rainfall irrigation, the seeds have sprouted, increasing vegetation coverage from 0% to 10%. Additionally, 6,000 mu of shrubs such as caragana korshinskii, Salix psammophila, and calligonum mongolicum have been planted in the surrounding area, further leveraging its windbreak and sand-fixation functions.



Phase I of the Tengri Desert New Energy Base Project in Ningxia

Protecting biodiversity

The company strictly abides by local laws and regulations on biodiversity protection, scientifically evaluates the impact of the company's operation and development on biodiversity, fully considers the impact of the project on the habitat and migration of wild animals, develops compensation methods, goes all out to reduce the adverse impact of the power station on the surrounding vegetation and animal habitat, and strives to become a biodiversity-friendly enterprise.

Longyuan's subsidiary in Heilongjiang avoids or reduces the impact of wind turbine operation on bird habitats by building bird nests in safe areas. Longyuan's subsidiary in Canada adjusts wind turbine start-up speeds during the summer active period to reduce the risk of bird collisions, especially for the locally endangered bats. Longyuan South Africa studies the use of "blade painting" as suggested by local environmental advisory committees to prevent bird deaths and achieve harmonious coexistence between humans and nature.



Employees Set nest for Bird



Tibetan Gazelle under Grade-II Conservation in Longyuan Xinjiang Photovoltaic Plant Area

Photovoltaic Power Generation Coexisting with Grade-II Conservation Tibetan Gazelle

Adhering to the principle of "love and protect without disturbance," we maximized the utilization of a digital intelligent monitoring system at the Aketao Photovoltaic Power Plant in Xinjiang to detect real-time human-induced risks in the habitat of the Tibetan Gazelle and provide 24-hour protection for this species under Grade-II conservation. During the dry season and harsh winters, we implemented proper feeding practices to ensure an ample supply of wild food for the reproduction and winter survival of the Tibetan Gazelle, thus establishing a "safe new home" for the wild Tibetan Gazelle community. Additionally, we integrated drone telemetry with ecological resource surveys conducted by the local forestry bureau to supplement and enhance the basic database of endangered wildlife. Furthermore, we conducted wildlife conservation awareness campaigns targeting households, pastoral areas, and enterprises to broaden the social impact of wildlife conservation efforts.





TRUST: Be People Oriented

We regard employees as important value creators, prioritize the construction of talent teams, and cultivate specialized talents for the new energy industry. We respect and safeguard the legitimate rights and benefits of employees, strive to create a healthy, safe, equal, inclusive, and diverse working environment, actively respond to employees' aspirations for a better life.



Protect employees' rights and benefits

100%

Signing of employment contracts

25%

The proportion of female senior managers

100 % Social insurance coverage We abide by the principle of equal employment, protect the rights and interests of employees, continue to optimize the remuneration and benefit system, focus on employee communication and democratic management, and build a harmonious and stable labor relations.

Equal rights

We strictly abide by the Labor Law of the People's Republic of China and the Labor Contract Law of the People's Republic of China and other laws and regulations. We enter into labor contracts with employees in accordance with the law, achieving a 100% contract signing rate. We adhere to the principle of equal employment, firmly prohibit the use of child labor, oppose forced labor and employment discrimination, and treat employees of different nationalities, ethnicities, genders, religious beliefs, and cultural backgrounds equally. During the reporting period, there were no disputes involving discrimination, employment of child labor, or forced labor.

Remuneration and benefits

We strictly comply with relevant national policies to timely and fully pay statutory social insurance and housing provident fund for employees. We also reasonably set up supplementary insurance such as corporate annuities and supplementary medical insurance, as well as employee benefits such as health examinations, and implement regulations on maternity leave and breastfeeding for female employees.

The Company has formulated remuneration management regulations and management measures of employee performance appraisals. In conjunction with the characteristics of the new energy industry, we have established a wage-performance linkage mechanism, closely linking the total wage amount with enterprise profits, efficiency, and performance appraisal indicators. We aim to enhance and maintain the market competitiveness of remuneration for frontline production, key positions, and high-level professional talents.

Democratic management

We value the suggestions and opinions from employees , fully guaranteeing their right to information, participation, expression, and supervision. The Company has set up three special working committees, specifically for production, operation and democratic management; employee welfare and labor law supervision; and the review of staff representative proposals. By implementing systems such as the Implementation Measures for Employee Representative Congress and the Method for Collecting and Handling Proposals of Employee Representatives, we strengthen democratic management with the employee representative congress as the basic form. In 2023, all 24 proposals from the Company's employee representative congress were fully implemented and responded to.

Value career development

The Company prioritizes advancing talents development, utilizing various means to attract outstanding individuals and infuse fresh vigor into the Company's development. Simultaneously, we are constructing a promotion and training system covering all employees, with precise skills training programs tailored to employees at different levels, fully unleashing the value and potential of each individual, and ensuring the organic integration of employee advancement with company development

Talent acquisition

The Company has established employee recruitment and deployment management systems, focusing on creating an efficient and sustainable "talent supply chain" to ensure an ample talent pool. During the reporting period, 334 new employees were recruited annually to enhance the cultivation and introduction of high-educated and innovative talents, more than 45% of them have a master's degree or above.

Number of full-time employees	8,75	2 Person	Unit: Person
By gender		By age	
Male		Aged below 30	
	7,429		2,424
Female		Aged 30-50	
	1,323		5,017
		Aged over 50	
			1,311
By educational background		By ethnicity	

Graduates	
	737
Undergraduate	
	5,695
Junior college or below	
	2,320

Han Chinese	
	8,065
Ethnic minorities	
	658
Other	
1	29
	2

By geographical region

Chinese mainland	
	8,721
Hong Kong, Macao, and Taiwan	
	2
Overseas	
1	29



Capability building

We refine the employee training system and formulate the Action Plan for the Construction of Skillful and Specialized Talent Teams (2023-2025). We establish a sound talent development mechanism of "selection-nurturing-evaluationpromotion-reward-cultivation", matching appropriate training plans for employees of different ages, levels, and positions. We tailor exquisite training programs such as "Craftsman Training Camp", "Internal Trainer Training Course", and "Quality Management Training Course". We strengthen specialized training around core tasks such as production operations and equipment management, including specialized training in wind turbine maintenance, distributed photovoltaic power generation technology. Carry out special training to improve the quality of listed companies and improve the ability of material management, open online management and leadership training courses for all employees.

Average Hours of Parti	cipation in Training	Hour
Durandan	Male	155.27
By gender	Female	61.49
By position	Senior management	80.00
	Middle management	96.55
	Ordinary employees	146.31
Percentage of training	gparticipation	
Pugandar	Male	85.75%
By gender	Female	14.25%
	Senior management	0.10%
By position	Middle management	8.54%
	Ordinary employees	91.36%

Career development

We construct multiple channels for employee advancement, creating pathways in "technology, skills, and management", establishing the Position and Rank Management Measures, and revising the Chief Technician Appointment and Management Measures. We enhance the promotion efforts for outstanding young talents, providing abundant cadre reserves and talent guarantees for the Company. In 2023, 29 young management personnel were promoted, accounting for 76% of the promoted personnel.

Safeguard employee safety

The Company prioritizes employee occupational health, continuously improving the HSE management system, enhancing safe control through working processes. We strengthens the infrastructure construction for occupational health and safety production, pays attention to employees' physical and mental health, enhances the level of occupational safety management, and promote employee awareness of occupational health.



Overall Objectives: Zero Fatalities, Zero Accidents



Organizational Structure:

Establish 7 permanent HSE-related organizations, including the Safety Production Committee, Ecological Environment Protection Working Group, Occupational Disease Prevention and Treatment Committee, etc.



Accomplishments in 2023:

Training rate of key responsible personnel and safety management personnel: 100%; Visualization rate of production operation sites: 100%

RMB **298.52** million Expenditure on H&S

37,937 person-time Participation in H&S training

0.00%

Incidence rate of occupational diseases among employees

Occupational health

We prioritize employee occupational health with the goal of creating a "Healthy Longyuan". Following the Guidelines on Promoting Occupational Health, we start from the source of occupational hazards, conduct occupational hazard detection and assessment, focus on controlling severely hazardous factors such as dust, toxins, and noise in workplaces, and gradually apply new labor protection equipment and supplies to reduce the hazards of occupational diseases.

We instill the concept that "everyone is responsible for their own health" and conduct in-depth health needs surveys, focusing on the physical and mental health of employees in positions with harsh working environments, high labor intensity, concentrated work pressure and remote areas. We promote the selection of "Occupational Health Ambassadors" and the publicity week of the Law on the Prevention and Treatment of Occupational Diseases, providing various activities such as mental health popularization education, safety psychology training, and psychological health assessments to create a culture of caring and paying attention to occupational health throughout the Company.

Production safety

The Company strictly adheres to laws and regulations such as the Law of the People's Republic of China on Work Safety, always adhering to the principle of "safety first, prevention-oriented, comprehensive governance", continuously improving the level of intrinsic safety, and using "visible leadership, visible site, standardized operations" as effective means to ensure safety. The Company has no work-related fatalities for three consecutive years, and the number of workdays lost due to work-related injuries is 998 days.

Mechanism and policies

We further improve the safety assurance and supervision management institutions at all levels of the Company, scientifically refine safety management system standards, increase investment in standardized safety production, improve safety monitoring and emergency response mechanisms, appoint safety directors as the main responsible persons in the Company's headquarters and subsidiaries, and conduct safety inspections at least once a month. During the reporting period, 3 new safety management systems were added, and 14 policies were revised.

Remediation of hidden hazards

The Company continuously improves the risk control system covering the entire process of safety production and involving all employees, focusing on key areas and major disasters, conducting major safety risk reassessment, and achieving a "one enterprise, one list" system. We conduct in-depth inspections during spring, autumn, and special safety checkups, focusing on special rectifications such as preventing falls from height, preventing misoperations, managing contractors, and technical supervision, aiming to eliminate safety hazards in their infancy. We combine hazard investigation systems with employee compensation, rewarding employees who timely discover significant accident hazards. At the end of the reporting period, there were no incidents of general equipment accidents or major equipment accidents in the Company.

Safety culture

We reinforce the promotion of safety culture concepts, improve the system of safety culture construction, integrate safety culture into various business operations, actively conduct case warnings, education and training, and experience promotion activities. We establish demonstration teams and units for safety culture, effectively enhancing employees' safety awareness and skills, and cultivating a strong foundation for safety culture.



Employees set up full-vision camera outside the cabin

Improve employee well-being

Through a diverse range of cultural and recreational activities, the Company strives to balance employees' work and life, vividly embodying the concept of "Happy Longyuan". We sincerely provide practical assistance, do good deeds, and help solve problems for the employees, offering relief to those facing difficulties and regularly extending greetings to overseas employees to enhance their sense of belonging.

Enrich spare-time life

To enrich employees' leisure time, combined with the employee's specialties and the actual situation of the Company, we organize various sports events such as table tennis and badminton tournaments, as well as cultural activities like psychological health lectures and Longyuan reading activities. Additionally, we conduct regular satisfaction surveys to ensure that employee welfare covers all staff members of Longyuan Power. Furthermore, the Company cares for female employees by organizing activities such as handicraft DIY sessions and cultural tours as part of the Women's Day celebrations.



"Handicraft DIY" Women's Day celebrations

Care for employees

We care for retired employees and those in special occupations, providing them with practical life support on a regular basis. For employees dispatched to overseas projects and their families, we actively carry out the "Overseas Escort" initiative, providing psychological counseling and continuously improving their living conditions abroad. For employees dispatched to overseas projects and their families, we actively carry out the "Overseas Escort" initiative, providing psychological counseling and continuously improving their living conditions abroad. We visit and offer condolences to employees, addressing their concerns such as meals, labor protection workwear, learning and training, production bases, and cultural and sports facilities, ensuring that we address the actual needs of the employees. In 2023, the Company invest in RMB 657,200 and assisted 131 employees in need, solving practical problems for employees and enhancing their sense of happiness.



Smart canteen





VALUE: Promote Mutual Prosperity

We carry a sense of mission and responsibility, considering the fulfillment of social responsibilities as a crucial component of its sustainable development. Actively promote the construction of green supply chain, it enhances strategic collaboration among industry partners to foster co-creation, shared benefits, and mutual success. The Company is committed to its corporate citizenship responsibilities, contributing significantly to the highquality development of the economy and society.



Build a sustainable supply chain

The Company is committed to enhancing its supply chain management by implementing responsible procurement practices spreading the principles of sustainable development to upstream and downstream businesses in the supply chain, jointly promoting the green, low-carbon, and high-quality development of the new energy industry.

Supplier management

We have been committed to minimizing the environmental, social and governance risks in the supply chain. In 2023, we revised the *Supplier Management Measures* and other four systems to expand the scope of supplier control and evaluation, including ESG management level into the supplier evaluation system, and strive to create a "fair, open and supervised" competitive environment.

Supplier Management Principles



←品

Dynamic

assessment

Competitive

tiering

Promoting the

best, eliminating

the worst

We shall develop a comprehensive supplier management framework that encompasses uniform policies, organizational structures, regulatory processes, and evaluation criteria to ensure the open, fair and just supplier management.

We shall implement a dynamic assessment system for suppliers, conducting ongoing, quantitative, and comprehensive evaluations based on criteria such as creditworthiness, bid pricing, product quality, contract fulfillment, and service levels to objectively assess supplier performance.

We shall classify and tier suppliers based on their results from open, centralized qualification reviews and dynamic assessments, fostering effective competition among suppliers within the same tier.

We shall optimize the supplier base by instituting mechanisms that reward trustworthy behavior and penalize breaches of trust. We shall prioritize suppliers that demonstrate superior performance and integrity while phasing out those that fail to meet performance standards or exhibit untrustworthy behavior.

Supplier oversight and complaint mechanisms

Tel: 010-63887632 Email: p0014519@ceic.com

7,983 Number of Suppliers

98%

Ratio of renewable energy business suppliers to pass quality management system certification

1,644 Suppliers evaluated

Responsible procurement

We prioritize the sustainable development of our suppliers, integrating environmental protection, health and safety, and business ethics into our supplier management and evaluation criteria, in that way systematic and comprehensive analysis to prevent procurement risks. Moreover, we insist that our suppliers respect the fundamental human rights of their employees, strictly prohibiting child labor, forced labor, and any violations of labor laws and regulations in their operating locations. The same principles are also applied to the suppliers/partners. Longyuan Power maintains a zero-tolerance policy for the aforementioned regulatory risks.

While pursuing economic value, we take sustainable development into consideration. In the procurement process, the Company prioritizing products that meet specific environmental protection standards throughout their lifecycle. Product must be harmless or less harmful to the ecological environment, have high resource utilization and low energy consumption. All products are required to meet national environmental protection standards and energy consumption standards.

阳光承诺协议	
<text><text><text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text></text></text>	In 2023, 100% of suppliers signing the Integrity Commitment Agreement for tender projects.

Supplier Integrity Commitment Agreement

Supplier communication

We leverage our industry influence by surveying key partners on their green and low-carbon development through questionnaires. Organize green development seminars with key suppliers, jointly exploring green and low-carbon development goals and practical measures for new energy enterprises. The Company is committed to playing the role of the leading goose, further building a communication platform, establish communication platforms and regular exchange mechanisms to promote collaboration between upstream and downstream enterprises, leverage the leading role of the industry, and support the green and high-quality development of the entire industry chain.

Create a better society

The Compan actively engages communication and cooperation with stakeholder, focusing on consolidating and expanding the achievements of poverty alleviation and effectively linking them with rural revitalization. We Increasing industrial poverty alleviation efforts and promote the overall goal of common prosperity. We fulfill our responsibilities in public welfare and charity, making due contributions.

Promote exchange

We actively engage in exchanges and cooperation with governments, enterprises, world organization and other stakeholders. We share our practical experiences in facilitating global energy transformation, addressing climate change, and fulfilling social responsibilities, offering Longyuan's solutions and models to the world and jointly promoting sustainable development. The Company was invited to attend the Think tank report release and seminar of the 6th BRICS Media High-end Forum held in South Africa, and shared the story of China-Africa energy cooperation in the keynote speech.

"World Youth Energy Tour" at Rudong Wind Farm

Longyuan Rudong Intertidal Wind Farm and Longyuan Power Jiangsu Company. welcomed 16 international youths from twelve countries across five continents in November, 2023. This event, themed "Clean Energy, Green Development, Beautiful Life," aimed to present the new landscape of China's energy industry to international youths. It offered them an insight into the construction of China's modern energy system and its green, low-carbon development practices. The initiative is designed to contribute to the high-quality development of global energy and expand the global green footprint by harnessing the wisdom and energy of youth.



Overseas Youth Visiting the Longyuan Rudong Intertidal Wind Farm

Charity and public welfare

The Company is dedicated to charitable and public welfare endeavors. We encourage our employees to actively engage in volunteer activities. By participating in environmental protection, educational support, and assistance for the needy, we collectively contribute to building a better community. In 2023, we organized over 30 volunteer activities, including community visits, visits to nursing homes and children's welfare institutes for condolence and assistance, green energy promotion, and "ESG: Low-Carbon Longyuan" initiatives. These efforts build our "New Energy Knowledge into Schools" signature brand.

Longyuan Yunnan Company's Innovative Science Popularization Volunteer Activity on New Energy Power Generation

In August, 2023, the youth volunteer service team of Longyuan Power Yunnan Company visited the New Era Civilization Practice Center in the Kunming Resort Area. They shared knowledge about new energy power generation with over 40 leftbehind children, providing an innovative science lesson and planting the "seed" of new energy in the hearts of the children.



Volunteer service team of Longyuan Power providing an innovative science lesson for children

RMB 8.22 million

Total investment in charity and public welfare projects



Rural revitalization

The Company takes "rural revitalization + comprehensive ecological governance + new energy demonstration project" as the idea, and strives for a win-win situation for the scale development of new energy and regional prosperity. We focused on providing targeted assistance to Youyu County in Shanxi Province to accelerate energy transformation and industrial restructuring and improve the quality and efficiency of industries. We have implemented the "Campaign to utilize the wind power in thousands of townships and thousands of villages" and the "Campaign to make thousands of households benefited from PV power", selected six pilot counties across the country to organize the pilot construction of a rural energy revolution, and explored and promoted the transformation of clean and low-carbon rural energy. We will further promote renewable energy heating, and step up efforts to develop renewable energy in rural areas and benefit the people.



Establishment of an Ecological Sheep Breeding Base in Xinfang Village, Yangqianhe Township, Youyu County, Shanxi Province

Addressing Challenges and Strengthening Foundations: Comprehensive Assistance to Boost Rural Revitalization

Located in Shuozhou City, Shanxi Province, Youyu County was once a national-level impoverished county. Longyuan power has implemented multiple key assistance projects, providing a total of RMB114 million in gratuitous assistance funds, carrying out 67 assistance projects, driving consumption for poverty alleviation to exceed RMB286 million, and successively dispatching 6 young and middle-aged cadres for temporary positions. Today, Youyu County has completely shed its impoverished county status and has become a national "Lucid waters and lush mountains are invaluable assets" practice and innovation base.

Poverty alleviation through photovoltatic project

Adopting the "construction-transfer" model, we provided gratuitous aid for the construction of two village-level photovoltaic power stations with a total capacity of 1.49 MW. The distribution of photovoltaic project revenue balances the functions of "blood transfusion" and "blood recreation," driving stable income growth for over 400 households in the county facing difficulties.

Poverty alleviation through foundation construction

We constructed and renovated the rural domestic water project in Gaojiapu Township, effectively resolving the villagers' challenges in accessing and consuming water. This initiative significantly enhanced the drinking water safety and overall living standards of the local farmers.

Poverty alleviation through industry

In Xinfang Village, Yangqianhe Township, we built an ecological sheep breeding base and implemented an improvement project in the rural living environment that enforces "human-animal separation." This project has consistently elevated the fundamental living conditions and amenities in Xinfang Village. With an investment of RMB3 million, the project advocates for the scaled and standardized development of ecological sheep breeding. It is projected to sustain a breeding population of 1,000 ewes, with an annual yield exceeding 4,000 ecological commercial sheep, thereby promoting income growth and prosperity among local farmers.

Poverty alleviation through medical care

We procured essential medical equipment for the county People's Hospital and the Traditional Chinese Medicine Hospital, including CT scanners, cardiac ultrasound machines, hemodialysis machines, ventilators, and varicose vein treatment devices. These acquisitions substantially upgraded the medical infrastructure of both public hospitals, contributing to the prevention of "poverty induced by illness."

The 10th Anniversary of the "Belt and Road" initiative

2023 marks the 10th anniversary of the "Belt and Road" initiative. Over the past decade, Longyuan Power has continuously deepened its engagement in South Africa, adhering to the principle of "joint consultation, joint construction, and shared benefits." In collaboration with local governments, partners, and residents, the Company has jointly developed green energy, significantly alleviating local energy shortages and driving employment, community welfare, and livelihood construction. Through profound accumulation and active fulfillment of responsibilities, the Company has established a new reputation overseas.

Provide economically viable clean energy

Longyuan Power South Africa Renewable Energy Co., Ltd. (Longyuan South Africa), a wholly-owned subsidiary of Longyuan Power, was established in Cape Town in 2011. It is engaged in the development, construction, and operation of renewable energy projects. Currently, Longyuan South Africa has invested in, constructed, and operates two wind farms in the region, with a total investment of approximately RMB2.5 billion and a total installed capacity of 244.5 MW. During the reporting period, Longyuan Power's De Aar Wind Power Project delivered 832,622 MWh of clean electricity to the local area, reducing carbon dioxide emissions by 692,300 tons. The Longyuan action vividly illustrates the green electricity story, providing tangible benefits to 300,000 South African households and effectively alleviating the power crisis. The generating capacity of the wind farms has been highly praised by local institutions, including DET NORSKE VERITAS (DNV), the entrusted inspection agency for bank loans. It has been hailed as a model of energy cooperation among BRICS countries by mainstream media in both China and South Africa.

The Company proactively aligns with the international carbon market. The project was successfully registered on the VERRA international voluntary carbon reduction platform according to international voluntary emission reduction standards. It is the first and only large-scale renewable energy voluntary carbon reduction project successfully registered in South Africa. By the end of 2023, a total of 3.74 million tons of carbon reduction had been issued, exploring a practical path for cooperation under the green "Belt and Road" initiative. Through concrete actions, the Company supports regional and global environmental protection, contributing China's strength to the construction of a global ecological civilization.



Longyuan South Africa's De Aar Wind Farm



Good health and well-being

Educational support

"Knowledge serves as a beacon in the world of all things." The Company has initiated the "Aid, Dreams, People" Education Action Campaign, focusing on the implementation of the Scholarship Plan in the Northern Cape Province to assist impoverished students in achieving their dreams. Annually, an average of ZAR4 million is allocated to fund 50 outstanding black university students locally, resulting in a total of 304 academically excellent impoverished university students receiving support in the province thus far. Additionally, the Company has constructed early childhood education centers to provide educational platforms for children from impoverished families in the region.

Longyuan South Africa's Early Childhood Education Centers

Longyuan South Africa has financed the establishment of four early childhood education centers in De Aar, donating six classrooms and benefiting 469 children from low-income families. Support was extended to publicly funded early childhood education centers for the installation of external fencing, ensuring the safety of children and the security of internal facilities and assets. Wi-Fi was installed to facilitate the children's learning. Furthermore, the Company has provided assistance to children's villages by purchasing children's beds and bedding, and received a letter of appreciation from SOS Children's Villages International.



Construction of Early Childhood Education Centers

Safeguarding health

"A healthy body is indeed a treasure." Longyuan South Africa consistently prioritizes community health as an essential aspect of its overseas development initiatives. The Company has provided support to two local nursing homes in the form of food, bedding for the elderly, wheelchairs, clothing, medications, and essential living items for individuals with disabilities. Furthermore, it has offered specialized assistance for those with disabilities and conducted free medical check-ups for the local community.

Longyuan Mulilo Health Project

Longyuan South Africa allocated ZAR4 million to donate a medical bus, equipped with professional medical equipment and personnel, in addition to subsidizing its operational expenses. Annually, Longyuan South Africa delivers high-quality, complimentary healthcare services to 9,000 residents of the community, with special attention to the needs of the youth, the elderly, and those with syndromes. This project has been lauded as an exemplary case of collaborative efforts between "Belt and Road" government authorities and enterprises in advancing community health initiatives.



Donation of a Medical Bus

Our Commitment

In 2024, the Company will practice the new development concept, focus on the key issues of ESG, take the evaluation criteria as the guidance, implement the key tasks of scientific and technological innovation, green and low-carbon, ecological protection, social contribution, efficient governance, renewable energy opportunities, promote the construction of ESG in an all-round, multi-level and three-dimensional way, and contribute to the high-quality and sustainable development of the Company.

Renewable energy opportunities

We will adhere to the strategy of advancing both onshore and offshore developments, balancing centralized and distributed generation, and leveraging both traditional and diverse energy sources, creating a highland for new energy development. We persist in innovation through technology and business models and focus on multi-scenario integrated development, building a fusion-style new natural economy. We will intensify our efforts in integrated energy development and explore innovative paths for collaborative and win-win cooperation.

Response to climate change

Thermal power plant will establish a carbon emission management system, conducting carbon emission assessments as required. Carbon emission intensity is incorporated into the binding indicators for performance assessment of thermal power enterprises and corporate leaders, promoting the shift from dual control of energy consumption to dual control of carbon emissions.

Ecological Conservation

In the early planning stages of projects, we conduct biodiversity surveys for site selection. During construction, we strictly adhere to the Three-simultaneous requirement, regularly conduct ecological environment monitoring, and hazard investigation and rectification. We enhance biodiversity conservation publicity and advocate the concept of respecting, complying with, and protecting nature.



Scientific and technological innovation

We continue to increase R&D investment, improve the scientific and technological innovation system, strengthen national-level R&D centers, focus on long-duration energy storage, deep-sea technology, and large-scale bases to intensify research efforts, and promote the transformation of achievements into new productivity. We will deepen digital empowerment, increase data aggregation, strengthen data asset management, expand data application scenarios, and advance the digital transformation of management.

Social contribution

We will further create distinctive projects that highlight our themes and integrate with our industry, promoting industrial revitalization and actively fulfilling our social responsibilities. Overseas, we will focus on key issues in local communities, conduct public welfare activities, and create a better life with community.

Corporate governance

We will systematically manage five risks in international operations, market competition, scientific and technological innovation, policies, and compliance. We will strengthen the rigid constraints of rules and regulations, enhance business review and approval processes, gradually conduct compliance and anti-corruption training for all employees, and improve the level of legal and compliant management for listed companies.



Appendix

Performance Appendix

Compared to 2022, the number of new indicators in this year's ESG report has increased by 28. Undisclosed indicators from last year are represented by "-".

Governance performance			
Indicator	Unit	Year 2022	Year 2023
Corporate governance			
Board meetings	Time	10	12
Committee meetings	Time	11	12
Non-executive director	Person	4	5
Female director count	Person	1	1
Independent director	Person	3	3
Female independent director count	Person	1	1
Business Ethics			
Legal and compliance training	Person-time	-	20,584
Anti-corruption training coverage	%	-	49.03
Director	%	62.50	100.00
middle and senior manager	%	99.06	100.00
General staff	%	-	47.46
Business ethics disputes case	Case	0	0

Environmental performance				
Indicator	Unit	Year 2022	Year 2023	
Use of Resources				
Total energy consumption	Ton of standard coal	-	3,743,601.30	
Coal consumption	Ton of standard coal	_	3,505,964.30	
Natural gas consumption	m ³	-	105,198.62	
Gasoline consumption	Ton	-	8,294.42	
Diesel consumption	Ton	_	869.69	

Indicator	Unit	Year 2022	Year 2023
Total electricity usage	MWh	2,310,829.23	2,504,654.16
Net purchased electricity	MWh	-	126,241.70
Total heat consumption	GJ	-	2,571,351.24
Net purchased heat	GJ	-	466,939.41
Energy consumption intensity	Ton of standard coal/ million revenue	-	99.45
Nater consumption	Ton	9,403,675.35	9,368,888.28
Vater intensity	Ton/million revenue	235.90	248.90
Response to Climate Change			
Fhermal Power Business Total greenhouse gas emissions ®	tCO2e	10,230,711.00	9,950,660.00
Scope 1	tCO2e	10,226,674.00	9,948,567.66
Scope 2	tCO2e	4,037.00	2,092.34
Thermal Power Business Intensity of greenhouse gas emissions	g/KWh	835.32	832.13
Pollutant emissions			
Fhermal power business sulfur dioxide emissions	Ton	605.14	514.99
Fhermal power business nitrogen oxide emissions	Ton	1,390.96	1,201.13
Thermal Power Business Dust Emissions	Ton	50.58	61.4
Fotal wastewater discharge	Ton	-	129,031.93
Industrial wastewater discharges	Ton	0	(
Naste treatment			
Naste generation	Ton	-	1,460,994.70

⁽¹⁾: As the main source of greenhouse gas emissions for the Company is the CO2 emissions of two affiliated thermal power companies within Scope 1, the scope of greenhouse gas emissions statistics in this report covers two thermal power business enterprises.

Indicator	Unit	Year 2022	Year 2023
General waste intensity	Ton/million revenue	-	38.81
Hazardous waste produced	Ton	-	1,137.16
Waste lubricant produced	Ton	209.70	298.07
Waste lubricant disposal [®]	Ton	182.87	273.32
Waste battery produced	Ton	129.95	186.07
Waste battery disposal $^{\odot}$	Ton	94.45	126.89
Hazardous waste intensity	Ton/million revenue	-	0.03
Renewable Energy Opportunities	5		
Total installed capacity	MW	31,107.84	35,593.67
Wind power consolidated installed capacity	MW	26,191.84	27,754.39
Other renewable energy holdings installed capacity	MW	3,034.20	5,964.28
New energy development quota	MW	18,367.00	19,840.00
Total electricity generation	MWh	70,633,024.00	76,225,815.82
Renewable energy electricity generation	MWh	60,060,361.00	65,906,020.00
Wind power electricity generation	MWh	58,308,065.00	61,352,968.00
Other renewable energy electricity generation	MWh	1,752,296.00	4,553,052.00
Wind power utilization rate	%	94.50	97.00
Wind power utilization hours	Hour	2,296	2,346
Renewable energy electricity savings of standard coal	Thousand tons of standard coal	17,596.40	18,754.70
Renewable energy generation is converted into greenhouse gas emission reduction	tCO2e	5,016.94	5,480.09
Environmental management			
Environmental input	RMB100 million	2.71	5.38
Quantity of major environmental violations	Case	0	0

⁽¹⁾: 100% of the Company's hazardous waste is disposed of, but because the disposal of waste takes longer than one year, some hazardous waste cannot be disposed of in the same year

Indicator	Unit	Year 2022	Year 2023
Equal employment			
Total number of employees	Person	8,842	8,752
Total number of part-time employees	Person	0	0
Total number of full-time employees	Person	8,842	8,752
by ethnicity			
Han Chinese	Person	8,159	8,065
ethnic minorities	Person	653	658
Other	Person	30	29
by gender			
female	Person	1,315	1,323
male	Person	7,527	7,429
by age			
30 and unde	Person	2,273	2,424
30-50	Person	5,229	5,017
50 and over	Person	1,340	1,311
by education			
graduate degrees or above	Person	687	737
bachelor's degrees	Person	5,570	5,695
associate degrees or below	Person	2,585	2,320
by region			
Chinese mainland	Person	8,811	8,721
Hong Kong, Macao, and Taiwan	Person	1	2
overseas ^①	Person	30	29
Employment contract signing rate	%	100	100
Social insurance coverage rate	%	100	100
Labor union members	Person	8,578	8,574
Employee satisfaction [®]	%	100	100
New hires of the year	Person	312	334

⁽¹⁾: The statistical caliber of the number of overseas employees by region is the number of foreign employees, and the data of the previous year are retroactively adjusted

 $^{\odot}$: Conduct a satisfaction survey on the activities of "I do practical things for the masses"

Indicator	Unit	Year 2022	Year 2023
Average paid leave per employee	Day	7.42	7.76
Turnover	Person	228	194
Rate of turnover	%	2.58	2.22
by gender			
female	%	5.10	2.87
male	%	2.14	2.10
by age			
30 and under	%	-	1.73
30-50	%	-	0.74
over 50	%	-	8.77
by education			
graduate degrees or above	%	-	4.21
bachelor's degrees	%	-	1.40
associate degrees or below	%	-	3.58
by region			
Chinese mainland	%	2.59	2.22
overseas	%	-	3.45
Hong Kong, Macao, and Taiwan	%	0.00	0.00
Expenditure on employee assistance	Thousand RMB	957.3	657.2
Number of employees assisted	Person	126	131
Staff development and training			
Expenditure on employee training	Thousand RMB	42,919.90	54,110.80
Employees participating in training	Person	7,610	8,016
Employee training coverage		86.07	91.59
by gender			
female	%	14.46	14.25

Indicator	Unit	Year 2022	Year 2023
male	%	85.54	85.75
by management level			
senior management	%	0.11	0.10
middle management	%	7.86	8.54
ordinary employees	%	92.03	91.36
by job category			
production staff	%	64.99	53.47
management, professional, and technical staff	%	30.25	45.97
other staff	%	4.76	0.56
verage training hours per employee	Hour	161.91	141.90
by gender			
female	Hour	90.60	61.49
male	Hour	173.97	155.2
by management level			
senior management	Hour	61.00	80.00
middle management	Hour	93.52	96.55
ordinary employees	Hour	168.01	146.3
Occupational Health and Safety Manag	gement		
mployees receiving occupational health and afty training	Person-time	10,962	37,93
xpenditure on occupational health and afety	Million RMB	298.78	298.5
bay off for injury $^{\odot}$	Day	906	998
Jumber of work-related deaths	Person	0	(

 $^{\odot}$: The number of working days lost due to injury is calculated by means of cumulative summary data

Indicator	Unit	Year 2022	Year 2023
Number of deaths due to occupational injuries	%	0	0
New occupational diseases	Person	0	0
Emergency exercises	Time	-	2,580
Equipment Security			
Major equipment accidents	/	0	0
Percentage decrease in wind turbine failure time compared to the previous year	%	46	51.91
Supply Chain Management System			
Total number of suppliers total number of suppliers	Supplier	7,267	7,983
Number of domestic suppliers	Supplier	7,150	7,801
Number of overseas suppliers	Supplier	115	179
Number of suppliers in Hong Kong, Macao, and Taiwan	Supplier	2	3
Number of supplier evaluation	Supplier	1,529	1,644
Technological Progress			
Total number of patents granted	ltem	-	540
Number of new patent applications	ltem	80	88
Patent applications for inventions	ltem	44	45
Patent applications for utility models	ltem	36	43
Establishment of national or industry standards	ltem	-	15
Amount of R&D investment	RMB100 million	1.11	2.37
R&D investment intensity	%	0.28	0.63
Number of national science and technology awards obtained this year	Item	-	1
Number of national-level R&D platforms ^①	Item	1	1

^①: The number of national R&D platforms is cumulative

Indicator	Unit	Year 2022	Year 2023
Rural Revitalization			
Total donations to external beneficiaries	Thousand RMB	28,330	26,220
Investment in charitable projects	Thousand RMB	10,330	8,220
Investment of beneficiaries of rural revitalization	Thousand RMB	18,000	18,000
Industrial assistance	Thousand RMB	3,000	5,800
Educational assistance	Thousand RMB	9,500	3,400
Medical assistance	Thousand RMB	0	3,100
Infrastructure assistance	Thousand RMB	2,500	2,400
Ecological assistance	Thousand RMB	2,000	2,000
Talent assistance	Thousand RMB	1,000	1,300
Expenditure on key public welfare projects	Person-time	3,669	3,861
Number of employee volunteer services	Hour	19,889.20	5,009.00
Funds introduced for public welfare projects	Thousand RMB	300.00	850.00
Cumulative employment opportunities created overseas (operation phase) $^{\odot}$	Person	127	122
Total investment in overseas community welfare	Thousand	6,250.00	7,353.70
Total number of beneficiaries of overseas assistance and public welfare	Person	13,914	9,088
Expenditure on localization procurement in overseas	Million RMB	349.77	365.27

^①: The data is the cumulative value

Contributing to United Nations SDGs Action

The Company actively responds to the United Nations Sustainable Development Goals (SDGs), and incorporates SDGs into its daily operations and business development, integrating with various stakeholders. Through a series of initiatives, it helps implement the SDGs and promotes the sustainable development of the Company and society.

Main Actions

1 ND Рочекту Майтай	 Actively support rural revitalization and continue paired assistance to Youyu County, Shanxi Carried out 67 support projects, with a cumulative investment of RMB114 million in assistance funds. Through e-commerce assistance, opened up sales channels and markets for Youyu products, with a cumulative driving poverty alleviation consumption to exceed RMB 286 million.
2 ZERO HUNGER	 Increase food production through the "New Energy+" model and industrial assistance Used the "New Energy + Planting" model to achieve power generation on panels, and planting cash crops and raising fish and shrimp under panels. Aided in the construction of 10 vegetable greenhouses in Youyu County.
3 GOOD HEALTH AND WELL-BEING	 Safeguard the health and safety of employees and organized medical assistance Invested RMB298.52 million in health and safety; a total of 37,937 person-times participated in occupational health and safety training. Enhancing psychological counseling for overseas project staff, visiting staff families, strengthening psychological counseling, listening to employee suggestions, and improving the living conditions of overseas staff. Purchased urgently needed medical equipment for Youyu County People's Hospital, including CT, cardiac color ultrasound, hemodialysis machine, ventilator, and varicose vein treatment equipment. Established a special community fund in South Africa and donated a medical bus, providing free medical services to more than 9,000 community members annually. Built the first 3 "Healthy Cabin" in remote and difficult areas
4 QUALITY EDUCATION	 Provide comprehensive training for employees, provide education assistance overseas, and implement education assistance in poor areas Matched appropriate training plans for employees of different ages, levels, and positions, with a training investment of RMB54.11 million for employees. Carried out the "Aiding Education, Building Dreams, Cultivating People" education campaign in South Africa, investing 4 million rand annually to support impoverished university students in completing their studies. Implemented the construction of the playground and track of Youyu County No. 2 Middle School, improved educational infrastructure, donated more than 340,000 books to schools in the county, and established 41 libraries. Built 4 early childhood education centers in De Aar to provide an educational platform for children from poor families.
5 GENDER EQUALITY	 Ensure equal employment and equal pay for men and women Adhered to the principle of equal employment and opposed employment discrimination, treating all employees equally. Strictly implemented the maternity and lactation leave regulations for female employees, and carried out theme activities to care for female employees.

Main Actions



Improve water infrastructure, provide clean water sources, and advocate for water resource efficiency
 Helped build water supply wells and reservoirs in Xinfang Village, Yangqianhe Township, Youyu County, to ensure clean water sources for villagers.



Fully tap the potential of new energy development and explore new scenarios for clean energy application

- Renewable energy power generation reached 65,906,020 MWh, and the consolidated installed capacity of newly built new energy holding project s reached 4,509.83 MW.
- Continuously explored new energy projects with multiple modes and scenarios such as "floating wind and fishery integration project", "agriculture and PV complementarity", "fishery and PV complementarity", and "salt and PV complementarity".



Promote decent work through talent assistance, skills training

- Formulated the *Action Plan for the Construction of Skillful and Specialized Talent Teams (2023-2025)*, focusing on technology, skills, and management training, and providing multiple channels for employee promotion.
- Increased the number of unmanned and less manned wind farms, shortened the working time of employees in remote and difficult areas, and improved employee happiness.
- Conducted e-commerce and agricultural skills training classes, training 403 skilled talents for Youyu County.



Promote digital transformation, and continue to integrate technological innovation into the new energy industry

- Built a digital platform for new energy production, creating a visualized site.
- Developed the world's first floating wind-fishery integration project CHN Energy Sharing Platform, forming a new model
 of "raising fish with electricity and generating electricity with fish", achieving the development goal of intensive sea use
 and cross-industry integration development.



Prohibit forced labor, eliminate child labor, and do not discriminate based on ethnicity, gender, nationality, religion, or cultural background.

- The number of employees was 8,752, with female employees accounting for 15.12%.
- The number of ethnic minority employees was 658.
- Required suppliers to respect the basic human rights of their employees, strictly prohibited the use of child labor, forced labor, and any behavior that violates labor laws and regulations.

Main Actions



Rely on the advantages of new energy, carry out ecological governance, and improve community living environment

- In Xinfang Village, Yangqianhe Township, Youyu county, Shanxi Province, we built an ecological sheep breeding base and implemented an improvement project in the rural living environment that enforces "human-animal separation." This project has consistently elevated the fundamental living conditions and amenities in Xinfang Village.
- We annually release various fish and crab fry into the Yellow Sea, conduct long-term tracking and monitoring, and cooperate with the government to supervise fishing operations in the project area, ensuring the sustainable development of the marine green economy and promoting the landing of ecological green prosperity construction.



Improve equipment reliability and power generation performance through technological innovation, strictly regulate waste disposal, and improve disposal efficiency

- Strengthened equipment reliability, with a proportion of 61.69% of units running for 300 days in a long cycle, an increase of 25 percentage points year on year.
- Independently developed the first domestic new energy waste material management platform, realizing the green recycling of
 waste materials, which has demonstration significance for the recycling and efficient utilization of retired wind power units.



Enhance climate governance capabilities, improve adaptability, and actively address climaterelated risks

- Developed the first domestic carbon inventory digital control system, making the carbon inventory work list-based, standardized, normalized, professional, and dynamic, and effectively improving work efficiency.
- Seizing opportunities, the trading green certificates reached 4.25 million.



Emphasize the protection of marine fishery resources to ensure sustainable development.

- The Haijing Salt-PV-fishery Complementary Project prioritized aquaculture to ensure the function of aquatic breeding while maintaining the ecological environment unchanged.
- Continued to carry out public welfare activities to breed and release seeds at sea, and released a total of 32.73 million seedlings to ensure the sustainable development of the Marine green economy.

15 LIFE ON LAND

Maximize the reduction of the impact of wind farms on biodiversity through monitoring, installation of protective measures, etc.

- Wild bird observation station platform in Rudong Wind Farm provided infrastructure and material support for experts and bird observers.
- Adopted warning colors and other methods to avoid bird strikes, minimizing the probability of bird collisions with turbine blades.
- Utilized digital intelligent monitoring systems to capture real-time human-induced risks in the habitat areas of antelopes, safeguarding the community of wild antelopes.



Promote corporate governance and compliance system construction, adhere to business ethics, and ensure fairness and justice.

- All suppliers signed the *Integrity Commitment Agreement*.
- Adhered to business ethics, and conducted comprehensive anti-corruption training.



Continuously enhance diversified cooperation and jointly build the road to sustainable development.

- Prioritized products that meet specific environmental protection requirements and are harmless or have minimal impact on the ecological environment during the procurement process, comprehensively considering sustainable development.
- Strengthened exchanges and cooperation with government, enterprises, international organizations, universities, and other stakeholders to build harmonious partnerships.

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Improve employee well-being	201-3		S1.10;S1.11	52 - 53
Value: Promote Mutu	al Prosperity			
Build a sustainable supply chain	2-8;2-28;308-2; 408-1;409-1	B5.1; B5.2; B5.4	G1.6;S5.1;S5.2;S5.3;S5.6;V2.5	56 - 57
Create a better society	203-1;203-2;413-1	B8.1; B8.2	E1.7; V1.1; V1.2; V1.3; V1.4; V2.8; V3.4; V3.5; V3.6	58-61
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^①: A2.5: Due to the nature of the Company's business being electricity production, which does not involve product packaging, this indicator is deemed "Not Applicable" based on the determination of its importance as a topic.

⁽²⁾: B6: Given that the Company's business is electricity production and does not involve matters such as health and safety of products and services, advertising, labeling, privacy issues, and remedial methods, this indicator is considered "Not Applicable" based on the determination of its importance as a topic.

Assurance Report



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Independent Limited Assurance Report

Ernst &Young Hua Ming (2024) No.70025006_A01 China Longyuan Power Group Corporation Limited

Board of Directors of China Longyuan Power Group Corporation:

Scope

We have been engaged to perform a limited assurance engagement, as defined by International Standards on Assurance Engagements, on the specified information ("Key Information") of China Longyuan Power Group Corporation ("Longyuan Power") 2023 Environmental, Social and Governance Report ("ESG Report").

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the ESG Report, and accordingly, we do not express a conclusion on this information.

Criteria applied by Longyuan Power In preparing the Key Information of ESG Report, Longyuan Power applied the Environmental, Social and Governance Reporting Guide issued by the Stock Exchange of Hong Kong Limited (HKEx) ("Criteria").

Management's responsibilities

Longyuan Power's management is responsible for selecting the Criteria, and for presenting the Key Information of ESG Report in accordance with the criteria above, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, so that such key information is free from material misstatement due to fraud or error.

EY's responsibilities

Our responsibilities Our responsibility is to express a conclusion on the presentation of the Key Information of the ESG Report based on the evidence we have obtained. We conducted our engagement in accordance with the *International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* (ISAE 3000 (Revised)), and the terms of reference for this engagement as agreed with Longyuan Power on 26th March 2024. The standard requires that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Key Information in order for it to be in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error. We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Our independence and quality management

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and have the required competencies and experience to conduct this assurance engagement.

EY also applies International Standard on Quality Management 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services engagements, which requires that we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Description of procedures performed Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance. Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Key Information and related information, and applying analytical and other appropriate procedures.



Independent Limited Assurance Report (Continued)

Ernst & Young Hua Ming (2024) No.7(China Longyuan Power Group

Description of procedures performed (Continued)

We performed assurance procedures on the specified information in ESG Report:

- Total electricity usage
- Water consumption Thermal Power Business Total greenhouse gas emissions
- Coal consumption
- Waste lubricant generation Total number of employees

- Full-time employees by gender-female Employee distribution by region-overseas Full-time employees by ethnicity-ethnic minorities Turnover rate of employees

- Number of work-related deaths
- Number of new patent applications Investment of beneficiaries of rural revitalization Amount of R&D investment •

Our procedures included:

- Conducted interviews with personnel to understand the business and reporting process Conducted interviews with key personnel to understand the process for collecting, collating and reporting 1) 2) Information during the reporting period Checked that the calculation criteria have been correctly applied in accordance with the methodologies of
- 3) the Criteria
- 4) Undertook analytical procedures of the data and made inquiries of management to obtain explanations fo
- significant differences we identified Tested, on a sample basis, underlying source information to check the accuracy of the data; and Other procedures deemed necessary
- 5) 6)

Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that need to the Key Information of ESG Report, in order for it to be in accordance with (or based on) the Criteria.



Comments & Feedback

Dear stakeholders,

Thank you very much for taking the time to review the *2023 Environmental, Social and Governance (ESG) Report of China Longyuan Power Group Corporation*. To facilitate communication through this report, we sincerely welcome your valuable feedback and suggestions on this report and our related work. Your input will assist us in advancing the management and practices related to environmental, social and governance issues within the Company.

Feedback Email: lyir@ceic.com



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This report adopts eco-friendly paper