







2024 CHINA ENERGY ENGINEERING CORPORATION LIMITED **Environmental, Social & Governance Report**

About the Report

Reporting Scope

Organizational scope: This report is applicable to China Energy Engineering Corporation Limited and its subsidiaries (hereinafter referred to as the "Company" or "we" or "China Energy") and states the overall performance in the environmental, social and governance of its principal businesses (survey, design and consulting, construction and contracting, equipment manufacturing, civil explosion and cement production, investment and others) during the operation.

Reporting period: This report covers a period from 1 January 2024 to 31 December 2024 (the "Reporting Period"), and part of this report may be beyond the period to ensure completeness of the report.

Preparation Principles

Guiding Opinions on the Fulfillment of Social Responsibilities with High-quality by Central Enterprises in the New Era of the SASAC of the State Council.

Self-Regulatory Guidelines for Listed Companies No. 14 -Sustainability Report (Trial) of the Shanghai Stock Exchange.

Environmental, Social and Governance Reporting Code in Appendix C2 to the Listing Rules of the Hong Kong Stock Exchange.

Sustainability Report Standards issued by the Global Reporting Initiative (GRI Standards).

International Organization for Standardization (ISO)'s Guidance on Social Responsibility (ISO26000: 2010).

2030 Agenda for Sustainable Development of the United Nations.

Reference Indicator System for ESG Report of Listed Companies Controlled by Central Enterprises.

Guidelines for Sustainability Report of Chinese Enterprises of Chinese Academy of Social Sciences (CASS-ESG 6.0).

Reporting Principles

This report is prepared in accordance with the principles of materiality, quantitative, balance, and consistency.

Materiality: This report focuses on reporting on issues that may have a significant impact on stakeholders and the Company based on the assessment results of ESG material issues.

Quantitative: The statistical standards, methods, assumptions and/or calculation tools for quantitative key performance indicators in this report, as well as the source of the conversion factors, are explained in the note of the report.

Balance: This report objectively discloses both positive and negative information to ensure an unbiased presentation of the Company's ESG performance during the Reporting Period.

Consistency: The statistical methods and calibers used in the information disclosed in this report are consistent with previous years unless otherwise specified.

Quality Guarantee

The financial data is abstracted from the annual report of 2024 of the Company, in case of any discrepancies, the annual report shall prevail. Other data are mainly based on the statistics of internal systems of the Company and its subsidiaries. The amounts reported in this report are denominated in Renminbi unless otherwise specified.

The Company undertakes that there are no false records, misleading statements or material omissions in the contents of the report, and takes responsibility for the authenticity and accuracy of its content.

Maintenance of the Report

The report is published in electronic copy, which could be downloaded at the Shanghai Stock Exchange's website (http://www.sse.com.cn), the HKExnews's website (http:// www.hkexnews.hk) and the Company's website (http:// www.ceec.net.cn).

If you have any questions, please contact us through the following methods.

Address: Building 1, No. 26A West Dawang Road, Chaoyang District, Beijing, the PRC Postcode: 100022 Telephone: +86(10)5909 9846 Email: csr@ceec.net.cn

CONTENTS

About the Report	01
Chairman's Statement	04
Board Statement	05
Knowing China Energy	06



Strengthening the Foundation to Build a New System for Fulfilling Responsibilities

Optimization of ESG Governance	10
Strengthening Guidance on Party Building	14
Deepening Construction of Internal Control	16
Strict Adherence to Business Ethics	18



People-oriented to Jointly Build a Harmonious New Ecosystem

Building the Great Wall of Security	50
Lean Quality Management	52
Protecting Employee Rights and Interests	53
Activating Talent Potential	54
Creating a Happy Workplace	55



"Dual carbon" Leading the Co-creation of a New Green Landscape

Actively Addressing Climate Change	22
Comprehensively Accelerating Green Transformation	26
Continuously Deepening Green Operation	28
Fully Protecting the Beautiful Ecology	33



Contributing to Society and Creating a Beautiful New Future

Assistance in Rural Revitalization	58
Support for Regional Development	60
Devotion to Public Welfare	61
In-depth Overseas Fulfilment of Responsibilities	63



Value Creation creating a New Pattern of Development

Deepening the Promotion of Technological Innovation	38
Craftsmanship Casting Monument Project	40
Gathering Efforts to Build the "One Belt and One Road"	43
Working Together for Mutual Benefit and Win-Win	44

Prospects	64
Appendix	66
Key Performance	66
ESG Index	70
Feedback	72

CHAIRMAN'S STATEMENT

中国能源建设集团有限公司 党委书记、董事长

The waves of the times are rushing forward, and the sweat of hard work makes dreams come true. In 2024, the Company always adhered to the guidance of the Xi Jinping Thought on Socialism with Chinese Characteristics in the New Era. vigorously implemented the "Certain Opinions", "1466" and "four-new" Energy Engineering strategies, comprehensively enhanced value creation, strengthened the "three forces" of execution, synergy and combat fighting force, and accelerated the "four transformations" of innovation, green, digital intelligence and integration, demonstrating a favourable trend of continuous enhancement of core functions, comprehensive improvement of operation quality and efficiency, accelerated development of new quality productive forces and significant leap in the brand image of "four-new" Energy Engineering, and thus striving to deliver a brilliant answer sheet.

Over the past year, we have adhered to our original aspiration and mission, and made every effort to implement major strategies. We firmly shouldered the mission and task of serving the national strategies, vigorously promote the construction of a new energy system and a new power system, and deeply participated in major research projects such as the national "15th Five Year Plan" energy and power planning. A large number of landmark projects such as the Dashixia Water Conservancy Hub, Aksay Solar Thermal Power Station, Qingshuichuan New Coal Power and Sichuan-Chongging Ultra High Voltage have completed and put into operation, fully demonstrating the commitment and hard-core

style of energy and power and infrastructure construction. We have steadfastly accelerated the pace of "going out" and strengthened the performance of overseas responsibility. A number of major projects with Energy Engineering recognition have become new landmarks of the "One Belt and One Road", creating new stories of practicing the spirit of the Silk Road, and contributing wisdom and strength of Energy Engineering to promoting the construction of a community with a shared future for mankind.

Over the past year, we have made every effort to strengthen innovation and increase momentum, and continuously created outstanding value. We strived for new strength, comprehensively promoted the "four transformations", and vigorously developed new quality productive forces with the characteristics of Energy Engineering. The original technology sources of new energy storage have been included in the national layout, highend scientific and technological innovation platforms have accumulated momentum, and significant achievements have been made in key core technology research and development. The new energy business continued to consolidate and expand, and strategic emerging industries such as compressed air energy storage and green hydro-aminol oil made significant breakthroughs. The benchmark project of "Eastern Data, Western Computing (東數西算)" leads the industry, and the integration of city's "eight networks" is full of vitality. The deep integration of technological innovation

and industrial innovation is accelerating, and the "innovation content", "green content" and "gold content" of enterprise development have significantly increased.

Over the past year, we focused on reform, optimized management and accelerated the improvement of governance performance. We adhered to the overall deepening of the reform, focused on our main responsibilities and businesses to further optimize the lavout of the "three major" industries, markets and resources. We systematically carried out the diagnosis by headquarters as well as navigation and orientation by new platform in terms of "six types", i.e. strategic leadership, value creation, innovation, resource allocation, supervision and service, and harmonious sunshine. empowering the innovative talents, innovative projects and innovative platforms through multiple channels. Adaptive organizational construction and continuous convergence of vitality and driving force continued to gain strength. We insisted on the equal importance of high-quality development and highlevel security, strengthened comprehensive risk management, made great efforts to tighten the systematic prevention and control networks, and ensured stable and compliant operations. Corporate governance has shown stronger vitality, and highquality development has taken more solid steps forward.

Over the past year, we have endeavoured to gather people's hearts and promote harmony, and strived to create a better life together. Adhering to the concept of "people-oriented", we fully protected the basic rights and interests of employees, actively assisted their growth and development, provided care and warmth, steadily strengthened safety management, and enriched employees' sense of gain, happiness and security. We solidly carried out Xinjiang and Tibet assistance and targeted assistance for rural revitalization, and launched a series of measures such as sericulture to promote agriculture, live streaming to support consumption and building beautiful rural areas, constantly creating new models for common prosperity. We fully participated in major rescue and disaster relief actions such as the plugging of the Dongting Lake, the super typhoon in Hainan and Guangdong, and the earthquake in Tingri, Xizang, and have made positive contributions to promoting stable economic and social development.

The journey is vast and the struggle is just right. In the new year, under the scientific guidance of the Xi Jinping Thought on Socialism with Chinese Characteristics in the New Era, we will stand on the tide and forge ahead with the strong will of dream hunters and the indomitable spirit of strivers, constantly enhance core functions and enhance core competitiveness, and strive to create a new situation of high-quality development of "four-new" Energy Engineering, so as to better demonstrate the functional value of the central enterprise and make new and greater contributions to comprehensively promoting the construction of a powerful country and national rejuvenation by means of Chinese modernization!

Board Statement

The Board of Directors is the highest decisionmaking body of the environmental, social and governance ("ESG") work of the Company and bears ultimate responsibility for the ESG work of the Company. The Board of the Company has established a Social Responsibility Work Committee, which is led by the chairman of the Board of Directors. It is responsible for the review and decision-making of major ESG issues, formulating ESG-related work policies, strategic plans, annual work plans and annual budgets, assessing and determining risks and opportunities relating to ESG of the Company, overseeing the risk management and monitoring system, and regularly reviewing the Company's ESG performance and progress in achieving its goals to evaluate on the results of our ESG performance.

As authorized by the Board of Directors, the Company's Social Responsibility Working Committee has commenced the collection and disclosure of ESG information for the year 2024. This report is prepared pursuant to the Guiding Opinions on the Fulfillment of Social Responsibilities with High-quality by Central Enterprises in the New Era of the SASAC of the State Council, the Self-Regulatory Guidelines for Listed Companies No. 14 - Sustainability Report (Trial) of the Shanghai Stock Exchange and the Environmental, Social and Governance Reporting Code in Appendix C2 to the Listing Rules of the Hong Kong Stock Exchange and with reference to the Sustainability Report Standards issued by the Global Reporting Initiative (GRI Standards), the International Organization for Standardization (ISO)'s Guidance on Social Responsibility (ISO26000: 2010), the 2030 Agenda for Sustainable Development of the United Nations, Reference Indicator System for ESG Report of Listed Companies Controlled by Central Enterprises and the Guidelines for Sustainability Report of Chinese Enterprises of Chinese Academy of Social Sciences (CASS-ESG 6.0). This report discloses in detail the progress and effectiveness of the Company's ESG efforts in 2024. This report is issued after consideration and approval by the Board of Directors

KNOWING CHINA ENERGY

Founded on 19 December 2014, China Energy Engineering Corporation Limited is a company with limited liability

Its businesses cover traditional energy, new energy and affairs, eco-environmental protection, comprehensive

As the leader and main force in the fields of energy power and infrastructure construction, the Company successively East Gas Transmission, West-East Power Transmission

characteristics, presenting the advance and mature Chinese technology, Chinese equipment, Chinese guality, Chinese



STRENGTHENING THE FOUNDATIONS TO BUILD A NEW SYSTEM FOR FULFILLMENT OF RESPONSIBILITIES

10

Optimization of ESG Governance

Strengthening the Leadership of Party Building



18

14

Deepening Internal Control Construction

Strictly Abide by Commercial Ethics



Optimization of ESG Governance

ESG governance mechanism

The Company adheres to the starting and ending point of "empowering beautiful China and building a better world", follows the concept of social responsibility of "independent innovation, contributing to society, scientific development and building harmony society", adheres to the organizational mission of "Bringing the Energy to the World" and the strategic vision of "industry-leading and world-class", and constantly improves the Company's social responsibility management system and system. The Company revised the Management Measures of Social Responsibilities, optimized and improved the responsibilities and division of work of certain organizations, and refined the process of ESG report preparation, approval and disclosure, so as to continuously enhance the professionalization of ESG management.

The company has established a three-level social responsibility governance structure of "leadership level - organization level implementation level" to promote the full integration of social responsibility and ESG into the Company's strategy, operations, management and culture. The Board of Directors is the highest leadership and decision-making body for social responsibility work. The Board of Directors is responsible for ESG issues and is in charge of the leadership and decision-making of the Company's overall social responsibility management, and decides on the Company's social responsibility objectives, strategic plans, annual work plans, and so on. The Board of Directors has set up a Social Responsibility Work Committee under the Board of Directors, with the Chairman of the Board of Directors as the head of the Committee. Social Responsibility Work Committee is responsible for the construction of social responsibility management and overall social responsibility management, and takes the lead in the daily promotion and implementation of related work. Its office is the centralized management department for social responsibility work, responsible for implementing the decisions and deployments of the Social Responsibility Work Committee, taking the lead in social responsibility planning and programming, organizing the compilation of reports, research on topics and other related work, and guiding and supervising the implementation of the relevant work by each unit to promote the construction of the social responsibility management system. The departments and divisions of the headquarters are the main executing entities of social responsibility management, and are responsible for completing the management and implementation of social responsibility within their respective departments. The subsidiaries have equipped social responsibility management personnel to organize the implementation of social responsibility work in accordance with the Company's overall requirements and management standards.



The highest leadership and decision-making body of the social responsibility work in the Company, deciding on the Company's social responsibility work objectives, strategic planning, annual work plan, etc., with the Social Responsibility Work Committee under it and the Chairman of the Board of Directors acting as the head of the Committee

Responsible for the construction of social responsibility management and overall social responsibility management, taking the lead in the day-to-day promotion and implementation of related work

The management department of social responsibility, and is responsible for implementing the decisions and deployments of the Social Responsibility Work Committee and taking the lead in organizing various units and relevant departments to implement the social responsibility related work

and management norms of the Company

s and Divisions at the		Subsidiaries	
rc .	4	Subsidiaries	
5	Reporting		
rson responsible for the	1 5	Equipped with social responsibility management	
ocial responsibility, and be		personnel to organize and promote the	
mpleting the work related to		implementation of social responsibility work in	
and implementation of social		the unit according to the overall requirements	

Communication with stakeholders

The Company actively established a regular and multi-channel communication mechanism to respond to the concerns and demands of stakeholders in a timely and effective manner, and continued to improve its ESG strategies and practices to promote the Company's high-guality and sustainable development. Meanwhile, the Company carried out information disclosure accurately and efficiently, and was rated A for information disclosure by the Shanghai Stock Exchange from 2023 to 2024.



Communication mechanism

- Policy guidance
- Report at the special
- meetina
- Information reporting
- General meeting
- Board Meeting
- Daily communication
- Regular or interim reports

Customers service hotline Satisfaction investigation • Visiting customers • Company's website

- Regular communication • Business communication and cooperation
- Participate in industrv association
- Employees representative
- meetina
- Daily communication
- Business training
- Corporate culture activities
- Learn of community • Formulate action plan
- Insight into domestic and international trends
- Master advance technology
- Improve environmental
- awareness

Our response

- Service national strategies
- Uphold steady operation
- Compliance with laws and regulations
- Green and low carbon development
- Maintain good results
- Improve corporate governance
- Timely release of information
- Improve innovation
- mechanism
- Enhance quality management
- Improve service system
- Carry out strategic cooperation
- Participate in the formulation of industry standards
- Adhere to honesty and trustworthiness
- Protect Employee Rights and Benefits
- Enhance production safety
- Improve training system
- Organize employee activities
- Promote rural revitalization
- Support Xinjiang and Tibet
- Support emergency rescue and disaster relief
- Carry out public welfare activities
- Reduce pollutants discharge
- Development of environmental protection industry
- Improve energy efficiency Construct green projects

Identification of important issues

On the basis of communication with stakeholders, the Company conducted in-depth studies on national macro policies, industry development situation, requirements of regulatory authorities; benchmarked against ESG mainstream standards and advanced enterprises; continuously carried out the identification, evaluation and screening of sustainability issues. The Company collected and collated feedback from stakeholders by way of questionnaires, and identified and assessed sustainable development issues of importance to the Company and various stakeholders, with a view to comprehensively and accurately disclosing information relating to sustainable development.



We collected relevant issues by sorting out feedback from daily communications with stakeholders. Based on the ESG Reporting Code of the Hong Kong Stock Exchange and the Sustainability Reporting Guidelines for Listed Companies of the Shanghai Stock Exchange, with reference to international and domestic sustainable development guidelines and industry practices, we identified sustainable development issues covering the environment, society and corporate governance.

By means of a questionnaire survey, we invited the Company's directors and senior management, as well as key stakeholders such as employees, customers and suppliers, to assess the importance of each issue from two perspectives, namely, the impact on the Company's development and the impact on the stakeholders both internally and externally. and a total of 224 questionnaires were collected.

Based on the principle of double materiality, we have ranked the importance of the issues through the materiality issues matrix. We invited external experts to participate in the discussion and identified 24 materiality issues as priority areas for the Company's ESG management efforts, which are highlighted in this report.





- 01 Responding to Climate Ch
- 02 Pollutant Emissions
- 03 Waste Treatment
- 04 Ecosystem and Biodiversit Conservation
- 05 Environmental Compliance Management
- 06 Energy Utilization
- Water Utilization 07
- Recycled Economy 08
- 09 Rural Revitalization and Co Regional Development 10 Social Contribution
- (1) "One Belt and One Road" and Overseas Responsibili
- 12 Innovation and Ethics in Sc Technology

hange 13	Supply Chain Security and Management
14	Equal Treatment for SMEs
ity 🚺	Industry Cooperation and Exchange
16	Product and Service Safety and Quality
17	Production Safety and Emergency Management
18	Data Security and Customer Privacy Protection
Coordinated	Employees
20	Internal Control and Compliance Management
[°] Construction	Due Diligence
lities 22	Stakeholders' Communication
Science and	Anti-bribery and Anti-corruption
24	Anti-competition

Strengthening the Leadership of **Party Building**

The Company thoroughly studied and implemented the spirit of the 20th CPC National Congress and the Second and Third Plenary Sessions of the 20th CPC Central Committee, coordinated the Party's leadership and Party building efforts, continued to deepen the Party's value creation, and comprehensively promoted the Party's building to improve its quality and increase its efficiency, and wrote a "faith answer sheet" to strengthen its roots and soul, a "commitment answer sheet" to fulfill its mission, a "pioneer answer sheet" to select the best people and gather talents and wisdom, a "strong foundation answer sheet" to strengthen its foundation and build up its strength, and a "lovalty answer sheet" to be comprehensively strict and correct in discipline, and has practically achieved the goal of leading the party building with high-guality party building.

Strengthening political leadership

Deepen the integration of party building

Cultivating

a culture of

excellence

Strengthen

team building

to learn and implement the spirit of important speeches, instructions and criticisms of General Secretary Jinping; coordinated the launch of centralized training on the ideology of socialism with Chinese characteristics in the new era of Xi Jinping and the spirit of the Third Plenary Session of the 20th Central Committee of the Communist Party of China (CPC), covering more than 52,000 party cadres and members.

Established a "1+2" system to deepen the implementation of the "first issue", formulated 320 measures

Comprehensively promoted the "Seven Grasps" project for grassroots party building, systematically upgraded the Company's party building brand, organized and carried out various and multilevel vocational skills competitions, deepened youth innovation and creation, vigorously selected model workers and other advanced models, and guided employees to make contributions in their posts; organized the inaugural meeting of the Overseas Chinese Association of Energy China in high specification, vigorously launched the theme activities of "Overseas Chinese Leaders Going to Relatives" and "Overseas Chinese Watching China": established a closed-loop mechanism for collecting and feeding back opinions and suggestions from non-Party intellectuals, and built a "grand united front" work pattern for Energy China in the new era.

Issued the "Management Measures for the Construction of Corporate Culture" to systematically build an excellent cultural system with excellent traditional culture as the foundation and the "six major cultures" of striving for the first place, hard work as the basis, innovation as the soul, collaboration as the priority, compliance as the basis, and integrity as the priority; held an exhibition of employees' cultural achievements for the first time, innovatively released the outstanding cases in engineering innovation design and construction named "Creating Beauty for the World"; compiled and distributed "Traveling to the South and the North - Footsteps of Energy China People" to record the development of the enterprise and show the company culture.

Deepened the construction and evaluation of the "three forces" of the executive force, cooperation force and fighting force of leadership team; optimized and adjusted the Party Committee management cadres for more than 300 times; optimized and improved the full-chain mechanism for selecting, training, using and managing young cadres, and continuously improved the quality and efficiency of talent work. Two people were successfully selected into the Science and Technology Talent Training Project of the SASAC of the State Council.

Strictly rectify the work style and enforce discipline

Optimized and improved the responsibility list of the Party Committee leadership team for implementing the "one post, two responsibilities" of comprehensively and strictly governing the Party; firmly shouldered the political responsibility for inspections and rectifications, and the Company's Party Committee inspection and supervision work received an A-level evaluation from superiors for four consecutive years; comprehensively promoted the study and education of Party disciplines, strengthened the dispatch of project inspectors at all levels, carried out special rectification of issues that violated the spirit of the Central Committee's eight regulations, vigorously rectified formalism to reduce the burden on the grassroots, and continued to consolidate a good political ecology with clear and upright atmosphere.

In 2024

Organizations at all levels have carried out "three conferences and one lesson", with more than

5400

times of theme Party days and more than



Launched more than 140

project achievements around key areas such as grassroots Party building

Subsidiaries has potablichod

studios and

48 vouth innovation pioneer

24 "youth commandos"

for scientific and technological innovat





China Energy held a warning education conference and special Party class on Party discipline study and education

On 1 July 2024, China Energy held a warning education conference. Song Hailiang, the secretary of the Party Committee and chairman of the Company, attended the meeting and gave a lecture about Party discipline. He emphasized that it is necessary to thoroughly study and implement the important exposition spirit of General Secretary Xi Jinping on comprehensively strengthening the Party's discipline construction and continue to promote Party discipline study and education go deep and practical, leverage on case warnings to guide Party organizations at all levels and Party members and cadres to systematically accept Party spirit tempering and ideological baptism, and strive to promote the Energy Engineering's practice of Chinese-style modernization.



Establishment of the China Energy Overseas Chinese Federati

On 30 August 2024, the founding meeting of the China Energy Overseas Chinese Federation and first congress of returned overseas Chinese and their relatives was held in Beijing. The establishment of the China Energy Overseas Chinese Federation is a major measure to thoroughly implement the major decisions and arrangements of the Party Central Committee and promote the vigorous development of the cause of the Overseas Chinese Federation. It has created a new situation of China Energy's united front, great unity and great development. The China Energy Overseas Chinese Federation will take the "four new actions" to unite the greatest hearts of the people, gather the greatest synergy, conclude the greatest common divisor and draw the greatest concentric circles, and make new and greater contributions to comprehensively building the "four new" Energy Engineering and accelerating the promotion of business development of the central enterprise overseas Chinese federation.



Deepening Internal Control Construction

According to the relevant regulatory requirements such as the Basic Standards of Internal Control of the Company, the Implementation Opinions on Strengthening the Construction and Supervision of Internal Control System of Central Enterprises and the Compliance Management Measures of Central Enterprises, the Company formulated the Key Points of the Construction of "Four-in-One" Integrated Risk Control System in 2024, upgraded and released the Implementation Plan on Accelerating the Promotion of Construction of World-class Integrated Risk Control System and the Internal Control Process Manual (third edition), organically embedding the legal affairs, internal control, compliance and risk management requirements into management system and procedures, perfecting and improving the integrated risk control system, and effectively promoting the scientific, regulated and high-efficient corporate governance.

With the goal of "strengthening internal control, preventing risks and promoting compliance, the Company has established an internal control system and organizational structure with clear responsibilities, definite division and efficient operation. improved the working mechanism of "three lines of defense" of internal control, compliance and risk management, and defined the work requirements of "internal control, compliance and risk management are in the necessity of business (管業 務必須管內控、管業務必須管合規、管業務必須管風險)". In addition, according to the three-year work plan of internal control evaluation, the Company clarified the general target of three-year full coverage, regularly carried out internal control selfevaluation and supervision evaluation every year, focused on the key control steps and core business processes that affect the high-quality development of the Company, evaluated the efficiency and effect of internal control, and continued to improve the Company's internal control system.

Governance

Board of Directors

system and related procedures.

The Board of Directors of the Company shall be responsible for the internal control and risk management system. The Board of Directors shall evaluate the internal control and risk management system, and review the adequacy and effectiveness of the Company's financial reporting system, internal control and risk management

Audit Committee (Supervisory Committee)

The Audit Committee (Supervisory Committee) under the Board of Directors shall guide the construction of internal control system and the accountability system for noncompliance operation and investment, discuss the risk management and internal monitoring system with the management, and evaluate the effectiveness of internal control.



Internal Control, Compliance and **Risk Management Committee**

The management of the Company has set up the Internal Control, Compliance and Risk Management Committee, and a mutual independent management and evaluation department of system construction. The person-in-charge of the committee shall perform the duties of the first responsible person and strengthen the coordinated management of internal control, compliance and risk management.



The functional departments and business departments of the Company shall perform the main responsibilities of internal control, compliance and risk management.

The legal affairs department shall perform the centralized management, enhance work coordination, perform the leading responsibility, guide the internal control, compliance and risk management related work of various departments of the head office and subsidiaries of the Company.

The discipline committee, the audit and inspection departments shall play the role of regulation, procure the rectification of issues found during the regulation and inspection, and investigate and affix the responsibility for non-compliance clues found in accordance with the requirements.

Compliance management

Focusing on the "1234" work idea of "one main line, two implementations, three-end efforts and four key points", the Company carries out compliance management work "one step ahead" and solidly promotes the construction of a world-class governance enterprise.

Strictly carry out three legal compliance audits

Taking the three legal compliance audits as red lines, the Company strengthens the legal risk management and control of major events, major investment projects and key steps, and prevents and controls risks from the source. In 2024, a total of 195,995 audits was made on systems, economic contracts and major decisions with audit ratio of 100%.

Carry out compliance effectiveness evaluation

The Company organized and carried out the effectiveness evaluation of the compliance management system in 2024. Each directlyowned subsidiary comprehensively self-examined the implementation on basis of the self-evaluation form. The regulatory department cooperated with relevant functional departments to carry out on-site compliance inspections on several subsidiaries and project departments to supervise closed-loop rectification.



In November 2024, the Company held a 2024 legal affairs and compliance training course

STRENGTHENING THE FOUNDATIONS TO BUILD A NEW SYSTEM FOR FULFILLMENT OF RESPONSIBILITIES

Thoroughly carry out special inspections of "three-no and ten-prohibition"

The Company thoroughly promotes the special compliance inspection of "three-no and tenprohibition" to enhance the red line awareness and bottom-line thinking of subsidiaries and integrate various requirements of compliance management into all aspects of production and operation. In 2024, the Company conducted on-site and online inspection against a total of 24 companies and 26 project departments.

Strengthen the construction of legal compliance talent team

Focusing on the construction of governance Energy Engineering, the Company held a 2024 legal affairs and compliance training course; held an on-site debriefing and exchange meeting of the general counsel, playing the leading role; and completed the "Construction Plan of Foreign-related Legal Talent Team".



In November 2024, the Company won the title of "Excellent Organizational Unit for Compliance Management Achievement Recommendation Activities of Power Enterprises"

Risk control

The Company insists on improving the comprehensive risk management system, continues to carry out annual major risk assessment, and determines five major risks such as debt, investment, project performance and international operation; organizes guarterly monitoring of major risks, tracks the progress and effect of risk prevention and control measures, monitors various indicator data, and prepares and reports quarterly risk reports; and attaches great importance to safety production risk management, integrates ESG risks into the Company's comprehensive risk management, and maintains the bottom line of preventing systemic and disruptive risks.

Three-level system of risk management

	e Risk Assessment Measures	
Control and Risk Management an and the Compliance Management Eva Regulations standardize the spe overall organization, allocation of and responsibilities, basic procedures of	ad the Internal Control aluation Measures clarify the ecific procedures and methods, d standardized requirements risk assessment and internal ntrol evaluation, etc.	The Special Risk Assessment Management Measures and the internal control process manual and others clearly require that special risk assessments should be carried out on specific matters, and standardize the basic requirements, operation methods and procedures of various business risk management and control.

Major initiatives and progress of risk management

- Comprehensively promoted the special rectification of the "three violations", focused on reviewing the compliant adjunct risk, and the risks of project construction were under control.
- Organized and carried out special inspections on investment risks, recovered RMB2.1 billion of overdue government payments, and withdrew from 18 investees.
- Systematically carried out special work to clean up default payments and settled account payables of RMB10.015 billion.
- Further promoted the management of dispute cases and the legal collection of creditor's rights, avoiding losses of RMB6.981 billion and collecting creditor's rights of RMB4.159 billion.
- Accelerated the construction of national asset management centers and organized special supervision of major foreign-related risk events.

Strictly Abide by Commercial Ethics

In strict compliance with laws and regulations of China and countries and regions where overseas business are located such as the Criminal Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China, the Anti-Money Laundering Law of the People's Republic of China, the Several Provisions on the Clean Practice of Leaders of State-owned Enterprises, the Interim Provisions on the Prohibition of Commercial Bribery, the Company resolutely opposes commercial bribery, extortion, fraud, money laundering and other improper commercial acts. The Company continued to strengthen the construction of the integrity system and the anti-corruption system, conducted anti-corruption works according to the "Major Supervision" Work Management Measures (《"大監督"工作管理辦法》). the Implementation Methods for Three Conversations with Management (《關於對領導人員進行三項談話的實施辦法》), the Implementation Methods for Processing Prosecution and Accusation by the Commission for Discipline Inspection (《紀委處理檢舉控告工作實施辦法》), the Implementation Methods for Supervision and Discipline Enforcement (《監督執紀工作實施辦法》), the Anti-cross-border Commercial Bribery Guidelines (《反跨境商業賄賂指南》), etc, focusing on preventing commercial bribery and commercial corruption, so as to comprehensively promote "corruption discourage, corruption inability and corruption unwillingness". In 2024, the Company's Discipline Inspection Committee was rated as outstanding in the 2023 performance assessment of the discipline inspection committee of enterprises by the Discipline Inspection and Supervision Team of the Central Commission for Discipline Inspection and National Supervisory Commission at the Stateowned Assets Supervision and Administration Commission of the State Council (中央紀委國家監委駐國務院國資委紀檢監察組).





Warning educatior



Audit

supervisior

Paid close attention to corruption issues in the field of engineering construction, carefully investigated clues involving corruption and unhealthy practices around the masses, resolutely rectified corruption and work style issues around the masses. Adhered to a strict tone, stroke hard against behaviors that harm the interests of the Company, and seriously investigated and punished violations of discipline and law such as benefiting oneself at the expense of public interest. benefits transfer, rent setting and seeking, and connected transactions.

Carried out a series of special rectifications for violations of the spirit of the Central Committee's Eight-point Decision, illegal use of official vehicles, illegal official receptions, and unhealthy tendency of dining and wining. Focused on in-depth rectification of business risk issues in the financial sector, overseas integrity risks, etc., further expanded the quality and efficiency of project inspectors, and effectively provided project governance empowerment.

Taking party discipline study and education as an opportunity, continued to promote the normalization of warning education. By producing the warning film "Lost in Trek (《迷航之殤》)", held warning education conferences for all levels and key units, compiled "Confessions (《懺悔錄》)" of those who violated disciplines and laws around us, and issued discipline inspection recommendations. and supervision and rectification notices and other forms to amplify the comprehensive effect of discipline education.

Revised and improved the Implementation Methods for Processing Prosecution and Accusation (《處理 檢舉控告工作實施辦法》), further unblocked the whistle-blowing channels such as letters, visits, phone calls and the Internet to accept accusations and reports in time. Obtained clues through inspection and handover, supervision and examination, department transfer and other channels, so as to give full play to the supervision role of party members and the masses. Strictly protected the relevant information of real-name whistle-blowers, reported the cases of letters and visits that cracked down on and retaliated against whistle-blowers to the upper organs, and supervised, strictly investigated and dealt with them.

Conducted comprehensive audits and evaluations on corporate governance, business ethics policies and norms, business behavior compliance, social responsibility and environmental protection, supply chain management and enterprise risk management, etc., promptly discovered and corrected existing issues, and further improved the Company's business ethical compliance.

Convening the 2024 Party Style and Clean Government Construction and Anti Corruption Work Conference and Warning Education Conference

On 30 January 2024. China Energy held the 2024 Party Style and Clean Government Construction and Anti-Corruption Work Conference and Warning Education Conference, summarized the 2023 Party Style and Clean Government Construction and Anti-Corruption work, focused on carrying out warning education, and studied and deployed key tasks of 2024, continued to promote comprehensive and strict party governance in depth.





JOINTLY DRAW A NEW GREEN PICTURE GUIDED BY "DUAL CARBON"



Actively Respond to Climate Change

26

Comprehensively Accelerate Green Transformation



33 Taking full care of beautiful ecology

The Company deeply implements the Xi Jinping Thought on Ecological Civilization, closely focuses on the "dual carbon" strategic goal, firmly grasps the development trend of green and low-carbon economy, promotes green and low-carbon transformation and environmental protection work in an all-round, multi-dim<u>ensional</u> and systematical manner, and fully promotes pollution reduction, carbon reduction, green expansion and growth synergy, advances the development of circular economy, and contribute the wisdom and strength of Energy Engineering to ointly build a beautiful China and a

Actively Respond to Climate Change

Climate governance

The Company insists on improving climate-related governance mechanisms, clarifying the work responsibilities of units at all levels and departments, and promoting the efficient and orderly development of climate change response work.

Board of Directors

To review and decide on major issues related to climate change; to formulate work direction, strategic planning, annual work plan and annual work budget; to evaluate and determine the climate risks and opportunities of the Company and to supervise the risk management and control system; to review the progress of achieving the targets periodically; to evaluate and assess the work results.

Climate strategy

Management

To evaluate, manage and monitor climate change issues; to set related targets and goals; to allocate costs and resources to manage climate change issues; and to coordinate across departments so to facilitate effective collaboration.

The Company insists on implementing the "30 • 60" strategy, takes the lead in systematically promoting the "1253" principle of "carbon peaking and carbon neutrality". The Company adheres to the national strategic goal of "carbon peaking and carbon neutrality" as the "one leading", firmly focus on the "two keys" of building a new energy system and a new power system, move towards along the "five paths" of low-carbon energy supply, electrification of energy consumption, industrialization of new energy technologies, institutionalization of low-carbon development and coordination of carbon neutrality responsibilities, and strive to properly dealt with the "dialectical relationship among three parties" of clean and lowcarbon fossil energy based on coal, intensive renewable energy based on wind and photovoltaic and systematic efficiency improvement and energy conservation based on major users. In 2024, the Company formulated and issued the "2024 Carbon Peaking Work Plan of China Energy", carried out research on new energy storage and hydrogen energy industry planning during the "15th Five-Year" Plan, prepared work proposals and work plans for the development of strategic emerging industries, and strived to be a leader and contributor to climate change.



Jointly organized the China Corner-theme side event of the 29th United Nations Climate Change Conference

On 13 November 2024, during the 29th United Nations Climate Change Conference (COP29), China Energy, together with Energy Research Institute under China Institute of Energy Economics Research, the Institute of Climate Change and Sustainable Development of Tsinghua University and the Investment Association of China, jointly held the China Corner-Theme side event - China Energy Transformation and New Energy Development Seminar and "China Energy Transformation Outlook 2024" and other results conferences. The event invited senior representatives from China, the United States. Denmark, the United Kingdom, the International Energy Agency (IEA) and other countries and international institutions, high-end think tank experts and business representatives to discuss how to accelerate the advancement of low-carbon transformation of energy of China and the world through technological innovation, policy measures and international cooperation.





As the largest special cement production base in China, Gezhouba Cement Company of China Energy actively carries out carbon footprint certification evaluation of ordinary and special cement products and explores the applicability of various standards and policies. In 2024, five varieties of cement products of Yicheng Company and Shimen Company, both subsidiaries, obtained the first batch of carbon label certificates for building materials in China. Gezhouba Cement Company became the first cement company in China to have carbon labels for both ordinary and special cement products, providing practical cases for improving and perfecting the carbon footprint management system in the industry.



Climate risk and opportunity management

The Company systematically builds an energy consumption and carbon emission measurement, monitoring and accounting system, scientifically carries out climate risk identification, analysis and evaluation, accurately formulates response strategies, effectively responds to the impact of climate risks and ensures stable business operation.





Risks related to climate change

	Type of risk	Analysis of risk	Scope of impact	Period of impact	Responding strategy
	Acute risk	Frequent occurrence of floods, typhoons, cold waves, heat waves and other extreme weather may cause equipment losses, casualties, production stagnation, deferred, etc.	Direct operation, upstream and downstream of the value chain	Short term	Improve emergency plans, standardize emergency measures Damage to equipment for emergencies, and purchase relevant insurance
Physical risk	Chronic Risk	The rising temperature in the world may lead to extreme hot and cold weather, sea level rise, water shortage, etc., which causes difficulties and potential safety hazards to the construction of engineering projects	Direct operation, upstream and downstream of the value chain	Medium and long term	Regularly monitor the long-term trend and development of extreme weather, promptly check the maintain facilities, and improve the ability to resist risks; improve the flood control and waterlogging control management of coastal enterprises; incorporate water resources management into the Company's resource management system to improve water resources utilization efficiency
	Policy change	Increasingly stringent corporate carbon emission information disclosure requirements; higher requirement for carbon emission management in China; increase in enterprise cost due to fluctuation in carbon trading prices	Direct operation, upstream of the value chain	Short and medium term	Continuously optimize annual disclosure; construct a clean, low-carbon, safe and efficient energy system, increase the development of renewable energy; research and apply energy-saving technologies; and actively participate in the national carbon market
Transformation risk	Technology updating	Increase in operating costs due to large-scale implementation of energy- saving technical transformation; enterprise expansion or transformation to new low-emission business types and significant adjustments of industrial structure	Direct operation, upstream of the value chain	Short and medium term	Implement innovation-driven development strategy, develop technical cooperation, and reduce R&D costs; and develop integrated energy utilization projects
	Market change	Low-emission products or services are more popular in the market; stakeholders pay more attention to the degree of greenness of products or services	Direct operation, downstream of the value chain	Medium and long term	Actively lay out new energy field and adapt to market development trend
	Reputational impact	Capital market questioning arising from environmental regulatory penalties; being unable to respond to the relevant demands of the enterprise to address climate change	Direct operation, downstream of the value chain	Short and medium term	Strengthen investor communication and investor relations management, and enhance information disclosure

Opportunities related to climate change

Type of opportunity	Analysis of opportunity	Scope of impact	Period of impact	Responding strategy
Resource efficiency improvement	Apply green and low-carbon processes and equipment to improve energy resource management and utilization efficiency, reduce carbon emissions and reduce operating costs	Direct operation, upstream and downstream of the value chain	Short, medium and long term	Strengthen technological innovation, create new quality productive forces, and promote energy conservation, emission reduction and green transformation
New market opportunities	Layout green and low-carbon industries, innovate and develop green and low-carbon products and services	Direct operation, upstream and downstream of the value chain	Short, medium and long term	Promote green development and enhance the Company's reputation and responsible image; vigorously develop new energy, new industries, new infrastructure, new materials, and accumulate new impetus for development

Climate indicators and objectives

The Company proactively carries out the green transformation of the energy industry, promotes the innovative application of low-carbon technologies, helps optimize the energy structure, and controls GHG emissions in an orderly manner. With 2021 as the base year, during the 14th Five-Year Plan period, the Company proactively and steadily promoted the "dual carbon" objectives with total annual carbon dioxide emissions reduced by 1.38%, and carbon dioxide emissions per RMB10,000 annual output value (revenue) decreased by 3.9%.

In 2024

▼ Total greenhouse gas emissions of 7,786,243 tonnes of CO₂e Direct greenhouse gas emissions of

In October 2024, the Shanghai Headquarter Integration Project of China Energy was successfully selected into the 10th Green Development Forum and Beautiful China Construction Practice Cases. As China Energy's first zerocarbon super-high-rise building, this project applies integrated photovoltaic technology to build a new microgrid zero-carbon energy system composed of geothermal energy, air energy, photovoltaics, cold storage, thermal storage, etc., to comprehensively control the carbon emissions of the building itself, and achieve zero-carbon operation with low energy consumption, low pollution and low emissions throughout the life cycle of the project.

Leading a new journey of 100,000-tonne green jet fuel

In October 2024, the construction of first phase of the Shuangyashan Green Methanol and Green Jet Fuel Demonstration Base, which is implemented by China Energy under the integrated investment, construction and operation mode, commenced. This is the world's first 100,000-tonne wind-photovoltaic-hydrogen-biomass integrated green jet fuel demonstration project, and also the first 100,000-ton secondgeneration sustainable jet fuel demonstration project in China. The total investment of the project is RMB20.8 billion, and planned annual production capacity is 200,000 tonnes of green methanol and 300,000 tonnes of green jet fuel. After completion, the project may promote the high-value conversion of renewable energy such as biomass and wind and photovoltaic, and play a key role in accelerating the scale of new energy, building a new energy system and ensuring the supply of green jet fuel, etc.



Greenhouse gas emissions for operating revenue per unit of 0.18 tonnes CO₂e/RMB0'000 Indirect greenhouse gas emissions of **3,191,848**tonnes of CO₂e **2,596,006**tonnes of CO₂e

Innovative built a smart and low-carbon headquarter





Comprehensively Accelerate Green Transformation

The Company firmly establishes and actively practices the concept of "lucid waters and lush mountains are invaluable assets", focuses on green and low-carbon transformation, vigorously explores new models of green development, makes every effort to strengthen and expand the new energy industry, strives to build comprehensive energy storage, systematically upgrades the integrated hydrogen energy, vigorously develops new green materials and eco-environmental protection industries, continuously expands green productive forces, enhances green competitiveness, demonstrates solid green strengths, and comprehensively enhances the "green content" of Energy Engineering brands.

accounting for

39.73 5.17

In 2024

▼ The signed contracts of new energy and comprehensive smart energy amounted to RMB

559.739 hillion

The newly acquired wind and photovoltaic new energy development indicator was

2020.86 million kilowatts

The strategic emerging industries achieved an operating revenue of RMB

168.849 billion

representing a year-on-year increase of

representing a year-on-year increase of

25.01

Transformation in key areas has achieved remarkable results

Successfully signed contracts for a number of major projects such as the Jilin Songyuan hydrogen energy supporting wind and photovoltaic power project, the Xinjiang Urumqi wind power project, the Saudi Arabia Haden photovoltaic power project and the Philippines photovoltaic storage, Liaoning Taizi River and Shanxi Yuangu pumped storage projects, Morocco gas turbine project and the Uzbekistan Tashkent photovoltaic storage projects and other key projects commence construction, and a number of transportation and energy integration projects such as electrified canal and Shenyang-Dalian hydrogen corridor have been accelerated.

Emerging industries accelerated layout transformation

Innovated and promoted the development of new business formats such as "desalination + new energy", and accelerated the industrial application of new technologies. The Shuangyashan green methanol and green jet fuel demonstration base and the Xiamen 5GWh energy storage battery production line have been fully commenced construction. The Liaoning Chaoyang bentonite, Henan Nanyang perovskite, Shanxi Datong coal gangue and other green new material industrial clusters have been accelerated. The Zhangjiakou gravity energy storage has been included in the new energy storage pilot of the National Energy Administration. Green Building Materials Company and China Energy Ruixin have been selected as the "Sailing Enterprises" of the SASAC of the State Council. The Yingcheng compressed air energy storage, Qingyang "Eastern Data, Western Computing (東數西算)" and Turpan photovoltaic and thermal power integration projects were selected into the first batch of "Top 100 Projects" of new industries of the SASAC of the State Council, and a number of new quality productive forces featured by Energy Engineering accelerated emerging.

advanced technology demonstration project

In December 2024, the No. 1 wind power section of Songyuan Hydrogen Energy Industrial Park, the world's first million-tonne green hydroaminol integrated project invested and constructed by China Energy, officially entered the unit installation stage. As a national key demonstration project in the hydrogen energy industry under the "14th Five-Year" Plan, the project has a total investment of RMB29.6 billion, with a planned annual output of 110.000 tonnes of green hydrogen and 600,000 tonnes of green ammonia/alcohol. The electricity-hydrogen coupling technology, flexible ammonia synthesis technology and ultra-light grid-connected technology adopted in the project have all reached the domestic leading level, achieving a high degree of matching of "source-grid-load-storage". After the completion of the project, it will smoothen the large-scale production path of green hydroaminol and promote the large-scale development of renewable energy hydrogen production and green hydrogenbased chemicals.

In November 2024, the Aksai Huidong 750,000-kilowatt solar thermal + photovoltaic pilot project independently developed and constructed by China Energy was connected to the grid at full capacity for power generation. The project is currently the largest single-unit tower solar thermal power station built in China, and also one of the first batch of solar thermal + pilot projects of large base of "desert, gobi and wilderness" in China. After the completion of the project, the annual power generation will reach 1.7 billion kilowatt-hours, which can save 507,000 tonnes of standard coal and reduce carbon dioxide emissions by 1.47 million tonnes every year, equivalent to planting nearly 1.2 million acres of trees. Through the "new energy + ecological governance" model, it provides a replicable Energy Engineering plan for clean energy development and highquality development of regional economy in Western China, and has become a vivid practice in implementation of the "two mountains (兩山)" theory.



Jilin Songyuan Green Hydroaminol Project was selected as a national green and low-carbon



Aksai solar thermal + photovoltaic project put into operation, helping "desert" turn into "blue ocean"

Continuously Deepen Green Operation

The Company continues to optimize the environmental management system, focusing on green design, green construction, green manufacturing, etc., and promotes low-carbon environmental protection, energy conservation and emission reduction, recycling in production and operation throughout the full chain, so as to continuously improve the green operation.

Strengthen environmental management

The Company strictly complies with the Environmental Protection Law of the People's Republic of China. the Law of the People's Republic of China on Prevention and Control of Air Pollution, the Law of the People's Republic of China on Prevention and Control of Water Pollution and other national laws, regulations and policies, strictly implements the Environmental Protection and Energy Conservation Management Provisions (《環保節能管理規定》), the Implementation Rules for Identification, Evaluation and Control of Environmental Factors (《環境因素識別、評價與控制實施細則》). the Measures for the Management of Production Safety Accidents, Quality Accidents and Environmental Incidents (《生產安全事故、品質事故、環境事件管理辦法》) and other relevant internal management policies, comprehensively advance and construction of quality, environment and occupational health and safety management system, systematically consolidate the environmental management responsibilities. During the Reporting Period, the Company did not occur any general or serious contingent environmental incidents, the pollution emission indicators met relevant requirements, and the comprehensive energy consumption per RMB10'000 of revenue and CO2 emission per RMB10'000 of revenue decreased by 9.71% and 2.3% year-on-year, respectively.

Clarified environmental goals

- ▶ Energy-saving goals: During the "14th Five-Year" Plan, the average annual comprehensive energy consumption shall be reduced by 2%, and the average annual comprehensive energy consumption of RMB10,000 of output value shall be reduced by 3%.
- > Water-conservation goals: Vigorously promote water conservation and water resources utilization, and increase wastewater utilization rate year by year.
- ▶ Waste emission reduction goals: Continue to promote waste classification, disposal and recycling, and continue to reduce emissions.

Consolidated environmental responsibility

Continued to sign the 2024 QHSE work responsibility letter with subsidiaries, including the headquarter departments in the scope of signing for the first time. The appraisal results were directly linked to operating results and performance, horizontally and vertically delivering the responsibility pressure in full coverage and without blind angle.

Promoted technological innovation

Tackled key core technologies focusing on "one center" of the "30.60" system solution, the "two support points" of comprehensive energy storage and integrated hydrogen energy. 2 natural science foundation projects were approved, and led and participated in 20 national key R&D projects.

Focused on investigation and supervision

Focused on investigating the disposal problems related to muck, mud, garbage, etc. in 1,186 domestic projects under construction, established ledgers for the 36 hidden dangers identified, and supervised the rectification item by item; continued to strengthen supervision and guidance for key enterprises with high proportion of energy consumption and large total carbon emissions.

Created a green culture

Organized subsidiaries to focus on "five conservations and one environmental protection", comprehensively promoted green construction management of engineering projects, and built a green brand; organized and carried out the National Energy Conservation Publicity Week and Low Carbon Day activities, carried out in-depth publicity and education, environmental protection training, investigation and rectification, etc., and created an atmosphere of "green transformation, energy conservation and emission reduction".



For a long time, Jingmen Company, a subsidiary of Gezhouba Cement Company under China Energy, has regarded the creation of green factories as an effective way and an important starting point for transformation and upgrading. It is committed to building a resource-saving and environment-friendly enterprise and has been successfully selected into the ranks of national "green factories" in 2024.

Consolidating the "green" foundation by energy conservation and carbon emission reduction

Approximately RMB100 million has been invested in equipment technology optimization such as energy-saving renovation of preheaters, upgrading and renovation of grate coolers, upgrading of energy-saving motors, application of intelligent driving, and second-phase energy-saving renovation of preheaters. After the renovation, comprehensive energy consumption and coal consumption per unit product have reached the first-level energy consumption level.

Cultivating a "green" background by utilizing clean energy

A 9MW pure low-temperature waste heat power generation system has been built to comprehensively utilize the waste heat resources discharged from the cement production lines for power generation and realize heat energy recycling. The factory premise was fully utilized to develop photovoltaic projects, approximately 42.8 million kilowatthours of external power supply may be saved every year.



Upgrading and renovation of the fourth generation of grate coolers

"Dual carbon" Leading the Co-creation of a New

projects passed green design and green construction evaluation

> mines were rated as provincial green mines

a year-on-year increase of



environmental protection awards at or above the provincial and ministerial level

Adding "green" forces by turning "waste" into "treasure"

The existing 4800t/d new dry cement production line was used to dispose solid waste by classification so as to realize resource reuse. The cement kiln collaborative disposal project of heavy metal contaminated soil can dispose of 50,000 tonnes of contaminated soil annually. A new alternative fuel system with a daily processing capacity of 160t/d has been built, which has processed 16,000 tonnes of waste textile and saved about 10,000 tonnes of standard coal.

Polishing the "green" fineness by green production

It has successively carried out environmental protection projects such as discharge port sealing, dry mist spray dust suppression, and technical transformation of small dust collectors. After the renovation, nitrogen oxide emissions can be reduced by 380 tonnes per year, reaching the second level of clean production, and was rated as "B-level Enterprise of Environmental Performance", strengthened production water conservation renovation, and was rated as "Water Conservation Enterprise in Hubei Province".



Dry mist spray dust suppression

Saving energy resources

The Company strictly complies with the requirements of the Energy Conservation Law of the People's Republic of China, the Regulations on Water Conservation (《節約用水條例》) and other laws and regulations, and formulates and implements management systems such as the Environmental Protection and Energy Conservation Management Provisions (《環保節能管 理規定》), strengthens the upgrading and transformation of technology and procedures, improves the utilization efficiency of energy and natural resources, vigorously develops clean energy and circular economy, so as to build a resource-saving and environment-friendly enterprise.

Clean energy consumption

Water conservation

Circular economy

- Optimized the energy consumption structure, built distributed photovoltaic power generation and waste heat power generation facilities, and built green microgrids to provide clean energy for production.
- Strengthened fuel substitution and promoted the replacement of fossil fuels by domestic waste-derived fuels, waste tires, waste textiles and other combustible wastes.
- Promoted energy-saving technological transformation, introduced the fourth-generation grate coolers, permanent magnet motors, intelligent expert systems and other equipment, and optimized energy consumption indicators.
- Deeply optimized the construction process, vigorously promoted water conservation construction equipment, and improved water resources utilization efficiency.
- Actively built rainwater collection and reclaimed water reuse systems to realize multiple recycling of water resources and promoted zero discharge of production wastewater.
- Applied cement kilns to collaboratively disposal of domestic waste, industrial contaminated soil and other wastes, realized waste reuse, and promoted energy conservation and emission reduction.
- ▶ Used fly ash, steel slag, etc. as raw materials to replace natural resources. so as to reduce resource consumption.

Built an integrated comprehensive energy station and set a benchmark for water conservation and zero emission

In June 2024, the Huizhou Daya Bay Petrochemical Zone Comprehensive Energy Station, the first integrated comprehensive energy project in China that combines hydrogen energy utilization designed and built by China Energy, was officially put into operation. The project adopts an integrated circulating water system, cleverly integrating water collection devices, circulating water pumps and cooling towers to achieve high-level collection of cooling water, improve the operation safety of circulating water pumps, and achieve significant energysaving and environmental protection effects. At the same time, the project innovatively uses reclaimed water as industrial water, adopts softening, ultrafiltration and other technologies to dispose the produced water in stages and reuse it in multiple stages, achieving efficient utilization of water resources and zero discharge of wastewater within the plant, and setting a green benchmark in the industry.



Panijang Xinguang coal-fired power generation project is put into operation, helping to create a model of circular econom

In June 2024, the Guizhou Panjiang Xinguang 2×660, 000 kilowatt coal-fired power generation project undertaken by China Energy was successfully put into operation. As a major provincial project in Guizhou, the project is equipped with2×660, 000 kilowatt ultra-supercritical coal-fired generating units, and highefficiency flue gas purification devices were built simultaneously. Under the guidance of the concept of circular economy, the world's first "secondary reheat power generation technology + steel ball coal mill" achieves efficient energy conversion. As a key project of the circular economy base in Pannan Industrial Park, the commissioning of the power station has effectively promoted Guizhou's "coal power capacity expansion and quality improvement", optimized the structure of the coal industry, injected green forces into the "West-to-East Power Transmission", and became a model of circular economy development.

Deepen pollution prevention and control

The Company's emissions mainly include sulphur dioxide, nitrogen oxides, chemical oxygen demand, ammonia nitrogen, construction waste generated from production and operation, etc. The Company strictly complies with the requirements of relevant laws and regulations and standards such as the Environmental Protection Law, the Law on Prevention and Control of Air Pollution, the Law on Prevention and Control of Water Pollution and the Law on Prevention and Control of Environmental Pollution by Solid Waste, coordinates the management of whole process and all elements of project development, construction and operation, and utilize advanced technologies, procedures and equipment to disposal and recycling of emissions, so as to effectively reduce pollutant emissions.

Waste management

- ▶ Adhered to the principles of treatment by minimization, resourcefulness and harmlessness. actively promoted the resourceful utilization of general solid waste and disposed of hazardous waste in accordance with laws and regulations.
- Utilized the new dry process cement production line to collect, process and dispose of solid waste by classification, and promoted waste co-processing and recycling.
- Adopted internationally advanced industrial waste soil pretreatment technology to co-dispose of heavy metal contaminated soil.

- control.



Waste gas management

▶ The main pollutants were discharged in compliance with standards, and the discharge density and total discharge volume met the standards approved by the pollutant discharge permit.

All kiln line units applied HSNCR precision ammonia injection technology to promote the SCR denitrification transformation technology of cement clinker production line, thereby effectively reducing nitrogen oxide emissions.

 Adopted dry mist dust suppression, nano insulation materials and other technologies to strengthen dust

Wastewater management

Promoted water conservation technological transformation, recycling of production water after purification, promoted zero discharge of wastewater, and made every effort to ensure that the effluent was continuously and stably discharged in compliance with standards.

In April 2024, China Energy Water Environment Management Research Institute was unveiled. The institute will focus on the main business directions of water treatment, water environment management, sewage (silt) sludge resource utilization, seawater desalination, land remediation and digitalization, etc., and carry out technology research and development and technological research on the "bottleneck" difficulties. Through technological empowerment and service empowerment, it will create an integrated scientific research platform of professional, flagship, ecological and environmental protection investment, construction and operation, which will be of great significance to promoting the high-quality development of China Energy's ecological and environmental protection business and building a first-class comprehensive ecological and environmental management provider.





"three transformations" leads the waste incineration power generation to light up the green free trade port

In September 2024, the Qionghai Municipal Waste Incineration Power Plant Expansion Project, designed and constructed by China Energy, was honored as the 2024 China Electricity Quality Project. The plant is the only domestic waste incineration plant in Qionghai City and the surrounding areas, with an annual waste treatment capacity of about 400,000 tons and an annual power generation capacity of 200 million kWh. The successful operation of the project realized the integrated treatment of urban and rural garbage and effectively solved the garbage disposal problems in Qionghai City and the surrounding areas.



Mud and water co-management, paints a new picture of water ecosystem recovery in in Beijing-Tianjin-Hebei

In December 2024, Tianjin Jingu Sewage Treatment Plant Phase III Expansion Project, constructed by China Energy, was officially put into commercial operation. The project adopts advanced technologies including the "improved Bardenpho + high-efficiency sedimentation tank + denitrification deep-bed filter + ozone-catalyzed advanced oxidation", realized the comprehensive treatment of sewage and sludge, with effluent quality, sludge treatment capacity and incineration flue gas emission standards reached the highest level in China. Upon completion of the project, 450,000 tons of sewage can be treated daily, reducing about 60,000 tons of organic pollutants annually, and 120 million tons of ecological water replenishment to the surface of the earth, which will strongly support the green development of Beijing-Tianjin-Hebei region.



Taking full care of beautiful ecology

By fully leveraging our advantages in professional technology, equipment, talent, capital and industry, and through the creation of major projects, the Company vigorously carried out ecological restoration and management, continuously promoted biodiversity protection, fully advocated a green production and lifestyle, jointly built a strong ecological barrier. and promoted harmonious coexistence between man and nature.

Ecological Restoration and Management

- ► For the "sand desert" areas, we constructed a "three-level comprehensive protection system for wind and sand fixation". and combined with photovoltaic sand control technology, we developed models including wind and sand blocking belts and under-board vegetation restoration have been.
- ▶ In complex polluted sites, we used soil remediation and ecological reconstruction technologies to control historical chemical pollution and restore ecological functions.
- ▶ We promoted the smart water platform, photovoltaic water plants and intelligent construction technologies, achieved digital control of sewage treatment plants and intelligent management of the entire construction process, and improved the efficiency of ecological governance.
- ▶ We vigorously developed into new areas of environmental protection engineering and undertaken a number of key ecological projects in China and abroad, including water treatment, water environment management, solid waste treatment, and soil remediation projects.
- ▶ We formed technical achievements in green mine life cycle mine planning, green mine road dust management, and mine vegetation concrete restoration, and continued to promote the construction of green mines.

Blooming "sunflower", creates the world's largest "green power plant"

The Yumen "solar thermal storage + photovoltaic + wind power" demonstration project, constructed by China Energy, is a supporting project for China's first batch of large-scale windphotovoltaic power bases in "Deserts, Gobi and Wastelands". It innovatively adopts the integration mode of "power generation + ecological management," created a benchmark for the coordinated development of green energy and ecological restoration on the Gobi Desert. Upon the completion of the project, the annual on-grid electricity will reach 1.75 billion kWh, reducing carbon dioxide emissions by 1.353 million tons. Through the multi-energy synergy of "photothermal peak adjustment + photovoltaic sand control + wind power supplementation", the project constructed an ecological industrial chain of "on-board power generation, between-board sand fixation, and under-board restoration", which provides China Energy's solutions for energy development and ecological protection of the desertified areas in the west.

Biodiversity Protection

Adhering to the concept of building a commonwealth of life between human beings and nature, we integrated biodiversity conservation into the entire process of planning, design, construction, operation and maintenance of facilities. By minimizing ecological disturbance, restoring damaged habitats and rescuing nationally rare species, we supported the stable operation of the ecosystem and created favorable conditions for the habitat of living creatures.

Advocacy of Green Civilization

Relying on the National Energy Conservation Publicity Week and Low Carbon Day, we carried out publicity and education on ecological and environmental protection, actively advocated green production and lifestyle, and organized environmental protection volunteer teams to popularize ecological and environmental protection knowledge in communities, schools, and enterprises, and created a new trend of green and low-carbon production and life.





Green transformation, helps Zhundong Yihua Wucaiwan coal mine to build a green mine benchmark in Xinjiang

As the general contractor of "drilling, blasting, digging, transporting and discharging" of the No. 1 open-pit coal mine of Zhundong Yihua Wucaiwan Mine, Gezhouba Explosive of China Energy used information technologies such as the Internet of Things, big data, artificial intelligence and 5G to help the Zhundong coalfield develop in the direction of less (or no) human control, greening, digitization, and intelligence. In terms of intelligent mining, it adopted precision blasting and drone monitoring to increase the resource utilization rate to 98.5%. In terms of energy transformation, it deployed new energy mining cards and photovoltaic charging systems to reduce diesel fuel by 1,200 tons and carbon dioxide emissions by 4,000 tons annually. In terms of recycling, it established a three-tier water recycling system of "rainwater collection + mine water purification + production wastewater reuse", with an annual water saving of more than 7,000 tons; in terms of new ecological restoration technology, it innovatively applied "vegetation blanket + drip irrigation" ecological restoration technology to reclaim and green 1,200 acres, and the vegetation coverage rate increased to 58%, formed an integrated ecological industrial chain of "coal mining - reclamation - greening". Through the mode of "intelligent mining + green manufacturing + ecological restoration", the mine became a benchmark for ecological management in the arid western region, and provides a "Xinjiang Model" for the green transformation of mines nationwide.





Lunan Mine Rehabilitation, changes "ecological trauma" into "green vitality"

In December 2024. Hefei Lunan Mine Rehabilitation Project Phase II, constructed by China Energy, passed the municipal acceptance. The project adopted two of the most cutting-edge ecological restoration spraying technologies in China, namely wood fiber soilless spraying and vegetated concrete spraying habitat technology, to incorporate a slurry full of grass and flower seeds into the cultivation soil, high-performance ecological substrate, organic fertilizer, and compound fertilizer, and then select biodegradable geotextiles for mulching and maintenance after four rounds of dense planting and spraying with the hydraulic spraying machine. At present, the vegetation cover rate of the 60.4 hectares of mining area exceeds 75%, the abandoned mines have regained vitality, soil erosion problems have been alleviated, and plant diversity has been gradually restored, realizing the transformation from "ecological trauma" to "green vitality".



Protecting biodiversity, building a commonwealth of life

Fish stocking and releasing in Nandu River. In April 2024, Haikou Branch of Eco-environment Company of China Energy, in cooperation with Haikou Municipal Water Bureau, launched fish stocking and releasing activities at Dongshan Pumping Station of Nandu River Diversion Project. As an important part of the ecological protection of major national water conservancy projects, the project systematically restores aquatic populations through the construction of cross-fish facilities, fish propagation and release stations and habitat protection zones, releasing more than 600,000 fish annually to help restore the biodiversity of the Nandu River.



"Eco-park" wastewater treatment plant. In April 2024, Qingyuan Changlong Water Purification Plant, contracted and constructed by Guangdong Institute of China Energy under EPC model, started trial operation. The project created an innovative eco-integration model of "wastewater treatment + plant landscape". Through the construction of the ecological system of the FCR pond, the project has planted more than 2,200 plants of more than 30 species, such as calamus and iris, forming an "ecological park" that is a perfect integration of wastewater treatment and plant landscape, which demonstrates China Energy's ability to innovate and practice in the field of water environment treatment and ecological restoration.



Enterprises are open for environmental protection event. In 2024 National Ecological Day, Jiangsu Institute of China Energy, together with the Nanjing Low Carbon City Construction Management Center and Nanjing Youth Palace, held a corporate open day on the theme of "energy saving, emission reduction and green development" to popularize environmental protection knowledge in various forms. The entire event was live-streamed online, with 2,268 people watching online.

Water-saving education nourishes the heart. In 2024. Binzhou Branch of Gezhouba Eco-Environmental Protection Company of China Energy carried out water-saving education at the Siyuan Water-Saving Education Base with vivid explanations and practical demonstrations to popularize water resources knowledge and enhance children's awareness of water conservation.

"Dual carbon" Leading the Co-creation of a New

Rescue of endangered animals. In August 2024, Gezhouba No.2 Company of China Energy was honored by the Liangshan Autonomous Prefecture Public Security Bureau for its timely rescue of the injured red and white flying squirrel, a national second-class protected animal. The company has always put the concept of ecological priority into practice in the construction of the project. By setting up wildlife protection stations and launching regular patrols, the company has taken practical actions to safeguard biodiversity and demonstrated its ecological responsibility as a central enterprise.











38

Value Creation, Creating a New Development Pattern





43

44

Ingenuity creates a monumental project

an 19 5



Working Together for Mutual Benefit and Win-W

The Company has always insisted on value orientation, accelerated the promotion of "four transformations". namely, innovation-driven transformation, green and low-carbon transformation, digital and intelligent transformation, and sharing and integration transformation, vigorously cultivated and developed new-quality productivity, made all-out efforts to build "national backbone projects", comprehensively deepened the "great overseas construction, and continuously trengthened industrial exchange ration and constant created a new situation of high-or

Il sister set and

Deepened scientific and technological innovation

The Company insisted on scientific and technological innovation as the "number one project", vigorously implemented the strategy of "strengthening the Company with science and technology, and developing through innovation". A series of landmark scientific and technological innovation achievements emerged one after another. The Company's scientific and technological innovation has achieved historic, holistic and systematic changes, which strongly promoted the Company's high-quality development and new quality productivity development.

In strict compliance with relevant laws and regulations, including the Patent Law of the People's Republic of China, the Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements, the Company formulated and revised relevant systems such as the Management Regulations on Scientific and Technological Innovation (《科技創新工作管理規 定》), the Intellectual Property Management Measures (《知識產權管理辦法》), and the Management Measures for the Evaluation of the First Unit (Set) of Major Technological Equipment (《首台 (套) 重大技術裝備評定管理辦法》), clearly clarified the requirements for fullprocess management of intellectual property rights in scientific research projects and comprehensively strengthened intellectual property protection. In terms of science and technology ethics, the Company strictly complied with national and industry policies and regulations on artificial intelligence and other fields, and utilized platforms such as the official corporate website and WeChat public account to popularize knowledge of science and technology ethics, and created a good scientific and cultural atmosphere. In terms of data security, the Company ensured data security by scanning and repairing system vulnerabilities, strengthening configuration monitoring, demarcating security zones, implementing identity authentication and authority management, multi-factor authentication, and encrypting and backing up important data, providing a solid and reliable data foundation for the stable operation and long-term development of the enterprise.

Comprehensively reshaping the science, technology and innovation system

The Company formulated the "14th Five-Year Plan" special plan for scientific and technological innovation, established Science and Technology Committee and Senior Technical Advisory Committee, established a "1+N+X" innovation platform system improved the mechanisms such as "unveiling the list and appointing the leaders", "horse racing", industryacademia-research-application, new technology demonstration, and scientific and technological awards and incentives. The Company vigorously cultivated "two" talent teams of outstanding innovators and scientists, and have systematically rebuilt the top-level design and management system of science and technology innovation.

Strengthen the key core technology research and development

The Company successfully completed the first phase of the "1025" task, developed and mastered a number of key technologies such as the installation of extra-large mixed flow units in hydroelectric power stations, and strongly supported the construction of major national projects such as Baihetan Hydroelectric Power Station and "Guohe No. 1". The Company took the lead in obtaining approval for the national key project of "high-altitude wind power generation." Our "300 MW compressed air storage system" was selected as one of the top ten scientific and technological innovations in the energy industry.

Accelerate the cultivation of new guality productivity

Enhance the integration capacity of science and technology innovation

The Company initiated the establishment of the China New Energy Storage Industry Innovation Alliance, organized 6 national-level R&D platforms and 14 professional research institutes, and strengthened the transfer of major original technologies, leading-edge technologies and subversive technology achievements and their application in engineering practice. The Company's new energy storage original technology curator has been selected as one of the second batch of curators by the SASAC. The Company's system solutions, such as carbon peak and carbon neutrality, new power systems, compressed air energy storage, and integrated hydrogen energy have been accelerated for implementation, continuously leading the high-quality development of the industry and the comprehensive transformation and upgrading of China Energy.

Deepen the development of digital and intellectual integration

The Company established a national-level big data platform for transportation and energy integration, built "four major digitalization platforms" of industry-finance integration, released a three-year action plan for artificial intelligence, deployed 103 artificial intelligence application scenarios, and promoted 35 digital companies to accelerate the expansion of the new battlefield of digital industrialization. The "four transformations" of management digitalization, industrial digitalization, digital industrialization, and data valueization have reached a new level.

Yingcheng 300MW compressed air energy storage project was successfully connected to the grid at one time, Jixi high-altitude wind power project successfully generated electricity, the first road-wide traffic and energy integration demonstration project of the Zaohe Expressway was implemented. Four projects including Gansu Jiuquan project were selected as national new energy storage pilot demonstration projects, and Jilin Songyuan green hydrogen ammonia project was selected as a national green and low-carbon advanced technology demonstration project. A number of new quality productive forces with China Energy characteristics are emerging rapidly, and the superimposed effect of scientific and technological innovation continues to be released.

In 2024

Annual R&D investment was RMB 14,117

1841

patents were granted, of which invention patents accounted for

37%

achievements won provincial ministerial and industry-level science and technology awards



In January 2024, Anhui Jixi high-altitude wind power generation new technology demonstration project, invested and constructed by China Energy, successfully generated electricity, becoming the first megawatt-scale grid-connected high altitude wind power generation demonstration project in China. The project adopted the umbrella ladder combination land-based high-altitude wind power generation technology route, which can utilize 300-3000 meters high-altitude wind energy for power generation. By driving the rotation of the ground winch and gearbox through cables, wind energy is converted into mechanical energy, and then mechanical energy is converted into electrical energy through ground power generation equipment, thereby achieving stable and continuous power generation. The project is of great significance to promoting the development of high-altitude wind power generation technology and industrialization.



The world's first 300 MW compressed gas energy storage plant was fully connected to the grid

"Energy Storage No. 1", the world's first 300 MW compressed air energy storage demonstration project, invested and constructed by China Energy, was connected to the grid at full capacity. The project innovatively adopted the "compressed air energy storage + gas turbine combined cycle" technology route, made breakthroughs in the bottleneck of traditional energy storage technology, created three world records of stand-alone power, energy storage scale, and conversion efficiency. The project's key equipment and deep-earth space utilization products are 100% domestically produced, achieving zero emissions throughout the entire life cycle of the energy storage system. The project provided a demonstration for the commercial application of large-scale new energy storage technology, marking that China's high-power compressed gas energy storage technology has reached the world's leading level.

Anhui Jixi high-altitude wind power generation new technology demonstration project successfully generated electricity



600-ton "Carbon Capture Block - CarbonBox" fills the gap of carbon capture equipment in China

In July 2024, the "Carbon Capture Block - CarbonBox", developed by Shanghai Complete Plant Company of China Energy, jointly with Shanghai Jiaotong University, as the Asia's largest and the world's leading 600-tonne annual carbon dioxide direct air capture (DAC) device, successfully passed the 100-tonne module full-load reliability operation verification. The device focuses on the difficult problems of high energy consumption and high cost of DAC, innovatively designed the capture device structure, optimized the process flow and developed core supporting parts, achieved the design target of carbon dioxide capture energy consumption, and achieved internationally leading comprehensive performance, filling the gap in China's ultra-large tonnage and high-concentration industrial-grade DAC engineering equipment, marking a major breakthrough in China's direct carbon dioxide air capture technology.



Ingenuity creates a monumental project

The Company closely focuses on serving national strategies and promoting high-guality economic and social development. Relying on its strong team of expert talents, first-class engineering construction capabilities and the spirit of craftsmanship, it has made every effort to create a number of iconic high-quality projects that lead the industry and enjoy a world-renowned reputation. It has interpreted corporate responsibility with practical actions and demonstrated its excellent brand image.

The world's highest altitude UHV AC power transmission and transformation project achieved full line throughput

In December 2024, Sichuan-Chongging 1,000 kV ultrahigh voltage AC transmission and transformation project designed by China Energy achieved full line throughput. As the world's highest altitude UHV AC power transmission and transformation project, the project overcame the challenges of high altitude, strong seismic zones and other complex geographic environments, and realized four major technological breakthroughs: the innovative use of high and low double-column portal tower structure to build the tallest single-circuit tower in Sichuan (128 meters in height); the first use of non-stop ground melting technology to protect the stability of the grid under extreme weather; and the innovative use of seismic intensity of 9-degree zone of the extra-highvoltage tower design to increase the earthquake resistance by 30%. Upon the operation, the project will transmit over 12 billion kWh of clean electricity annually, upgrade the main grid of the Southwest China Power Grid to 1,000 kV, and become a benchmark project for promoting the optimized allocation of energy resources in the western China.



power station under construction in the Yellow River Basin, was put into operation

In December 2024, all units of Qinghai Yellow River Ma'erdang Hydropower Station, the highest altitude hydropower station in the main reaches of the Yellow River, in which China Energy participated in the construction, were put into operation. The hydropower station has a total installed capacity of 2.32 million kilowatts. It is the hydropower station with the highest altitude and largest installed capacity under construction in the Yellow River Basin. It is a key energy project of the "14th Five-Year Plan" of China and Qinghai Province, and it is also the core project of the Ma'erdang "hydro-photovoltaic-storage-reservoir" 10-millionkilowatt multi-energy complementary integrated clean energy demonstration base. Upon the full operation, the average annual power generation of the project will reach 7.304 billion kWh, which will provide strong support for helping Qinghai build a national clean energy industry highland and a clean energy base in the upper reaches of the Yellow River.

The world's tallest concrete panel rockfill dam - Xinjiang Dashixia Water Conservancy Hub Project dam completed the capping

In December 2024, Xinjiang Dashixia Water Conservancy Hub Project, invested and constructed by China Energy, completed the capping. The project is the world's highest concrete panel rockfill dam, with a fill elevation of 247 meters, marking China's leading 300-meter panel dam construction technology. The project team applied intelligent means, with the help of the intelligent management cloud platform of "1 platform + 4 management business application clusters + 5 construction process monitoring system modules + 10 control centers", integrated the new generation of information technology, overcame a number of world-class problems, realized intelligent management of construction and operation, broke through the technological bottleneck, and contributed vivid Chinese wisdom and Chinese solutions to the world.



Ma'erdang Hydropower Station, the highest altitude and largest installed capacity hydroelectric



The deep integration of new-generation information technology with engineering construction and management services has realized the intelligent management of Dashixia project construction and operation, reflecting the development of new quality productivity in the water conservancy industry and providing a model for pioneering and leading new and greater development of dam construction.

- Jia Jinsheng, honorary chairman of the International Commission on Large Dams, deputy director of the State Key Laboratory of the Chinese Academy of Water Resources and Hydropower Research, and vice chairman of the China Society of Dam Engineering

Shaanxi Qingshuichuan Energy Phase III Expansion Project won Asian Energy Award

In November 2024, the Phase III 2×1000MW expansion project of Shaanxi Qingshuichuan Energy Co., Ltd., designed and constructed by China Energy, won the 2023-2024 Asian Power Annual Best Coal-fired Power Project Gold Award selected by Asian Energy magazine. With a total investment of RMB7.12 billion and two 1,000,000 kW units, the project is a key project in China and Shaanxi. The project adopted three world-first technologies: "four towers in one", cold source loss residual heat recovery technology, zero-level high-pressure heater full-load operation technology and full-extraction 10-level heat recovery technology. Upon completion, the project will realize the local conversion of coal resources and promote the integration of coal and electricity.





The second phase of the Fangchenggang project of the "Hualong 1" demonstration project was fully completed

In May 2024, Unit 4 of the Guangxi Fangchenggang Nuclear Power Station, constructed by China Energy, was put into operation. Upon the full operation of the two units of Fangchenggang Nuclear Power Plant of the "Hualong 1" demonstration project, the annual power generation will reach 18 billion kWh, which can meet the annual electricity demand for production and life of 2 million people, reduce the consumption of standard coal by more than 5,436,000 tons per year, and reduce the emission of carbon dioxide by 14,832,000 tons per year, equivalent to the planting of more than 40,000 hectares of trees. It is of great significance to promote the green transformation of Guangxi's energy, ensure the safe supply of energy, improve the efficiency of the energy system, and ensure the realization of the "dual carbon" goals as scheduled.



In 2024

New contracts signed for international business amounted to RMB

> 321.57 hillion





Adhering to the concept of openness and cooperation, the Company vigorously implements the strategy of prioritizing quality and synergistic development of its international business, adheres to the principles of "ten withs" and "three leads and one cooperation", carries out internationalized operation at a high level, and participates in the construction of "One Belt and One Road" at a high level and strives to bring advanced and mature Chinese technologies, Chinese equipment, Chinese quality, Chinese management and Chinese operation services to the people of the world, and make every effort to promote "two-way running, two-way empowerment, and two-way win-win" to help enhance the well-being of the world.



In August 2024, the first unit of SK Hydropower Station in Pakistan, invested by China Energy, was connected to the grid. The station is the largest overseas greenfield hydropower investment by a Chinese company and a landmark project of the China-Pakistan Economic Corridor. With a total investment of USD1.962 billion and an installed capacity of 884 MW, the project has the largest single-unit capacity of impact turbines overseas and the world's deepest pressure shaft cluster. Upon full operation, the project is expected to generate 3.212 billion kWh of electricity annually, save 1.28 million tons of coal and reduce carbon dioxide emissions by 3.2 million tons per year, provide electricity to more than 1 million households, and provide 6,600 jobs at the peak of the construction period, which will strongly promote the development of the local economy.



Focusing on "One Belt and **One Road**" construction

The commissioning of SK Hydropower Station lights up the China-



Photovoltaic and storage integration, witnessing deserts become oases

In July 2024, the second phase of the 300 MW photovoltaic power station project in Penillasco, Mexico, which was constructed by China Energy as an overall contractor, was connected to the grid and generated electricity at full capacity. The project is Mexico's first governmentlevel photovoltaic + energy storage solar project. The total installed capacity of the project is 365.8 MW. Upon completion, the average annual online power generation will be 896.3 million kWh, which will greatly alleviate the tight power supply situation in northwestern Mexico and effectively promote regional economic development and improvement of people's livelihood.





Energy storage goes overseas and helps "One Belt and One Road" energy cooperation

In December 2024, the Fergana Oz 150MW/300MWh energy storage project and the Andijan Loch 150MW/300MWh energy storage project in Uzbekistan, which were constructed by China Energy as general contractor, were successfully connected to the grid.. The two projects, with a total investment of about USD280 million, are the largest monomer electrochemical energy storage projects invested by Chinese enterprises overseas. The construction works and transmission lines of the projects are all localized, and more than 1,000 jobs were created for the local community during the construction period. Upon operation, it will provide 4.38 billion kWh of power regulation capacity for Uzbekistan's power grid.



Working Together for Mutual Benefit and Win-Win

The Company always adheres to the concept that "Energy Engineering has advantages to meet the needs of another party, and consensus of both parties contributes to win-win cooperation", constantly strengthens communication and practical cooperation with upstream and downstream of the industrial chain as well as domestic and foreign large, medium and small enterprises, expands the "circle of friends", and consolidates the "win-win chain", so as to create a new situation of market co-development, complementary advantages and common interests.

Enhancing industry exchanges

The Company actively leveraged a series of high-end forums and other activities to vigorously disseminate the concept, solutions and wisdom of Energy Engineering, systematically tell the story of Energy Engineering brand, effectively promote industrial communication, and strengthen resource integration, expanded cooperation space, so as to lead the high-guality development of the industry.

In 2024, the Company

planned and carried out

26

high-end cooperative activities, including the "three-new" Alliance Conference, the Annual Conference of the New Energy Storage Industry Innovation Alliance and the New Energy International Investment Alliance Conference









From 5 and 8 June 2024, China Energy appeared at the 2024 Shanghai International Carbon Neutrality Expo. The Company's main exhibition hall was set up with four themes, namely "technological innovation, integrated development, future industries and Shanghai enterprise cooperation", which demonstrated the vision of cooperation between China Energy and local governments and alliance partners in aggregating green and low-carbon industrial resources, and jointly building the green and low-carbon industrial chain leader.

On 8 November 2024, China Energy participated in the CIIE for the seventh consecutive year, during which the total amount of contracts signed with partners exceeded USD3 billion, representing a year-onyear increase of 56.01%, hitting a new record high. Reling on the CIIE platform, China Energy actively practiced the principle of "making the Chinese market a global market, a shared market and a market for everyone" to promote international exchanges and cooperation. Over the past seven years, the amount of contracts signed by China Energy at the CIIE has been increasing year by year, and the cumulative amount of contracts signed reached nearly USD9 billion.

On 26 November 2024, the 2nd China International Supply Chain Expo (CISCE) opened in Beijing. Song Hailiang, the secretary of the Party committee and chairman of China Energy, was invited to attend the welcoming ceremony of the CISCE and

deeply participated in more than

large-scale events such as the Global Sustainable Transport Summit Forum, the China-Africa Forum and the "One Belt and One Road" Energy Ministers' Meeting

signed



strategic cooperation agreements with local governments such as Qinghai Province and Hainan Province, as well as enterprise groups such as CITIC and Huawei

delivered a speech. China Energy continued to participate deeply in the CISCE, contributing to the prosperity and development of the clean energy industry, and promoting the stability and smoothness of the global industrial and supply chains.



On 22 September 2024, the "electrified canal" system solution of China Energy was presented at the 16th International Transportation Technology and Equipment Exhibition. The Company is the only central enterprise participating in the exhibition that focuses on the integration of transportation and energy. Under the theme of "Transportation and Energy Integration, Green Vision for the Future", the exhibition hall systematically introduced a series of demonstration achievements of China Energy in promoting the integration of transportation and energy and helping to build sustainable transportation by focusing on highway electrification, electrified canals and ship electrification.



On 12 November 2024, the "three-new" Alliance and the New Energy Storage Alliance Shandong (Qingdao) Tour, and the 2024 Annual Conference of "New Energy, New Infrastructure and New Industry" Alliance were held in Qingdao. The conference held signing ceremony for major projects, involving key projects in energy integration, new energy, hydrogen energy storage, international engineering and other fields, with a total contract amount of RMB97.88 billion.

Building sustainable supply chain

The Company attaches great importance to supply chain management, adheres to the integrated thinking of "chain", and continuously promotes the upgrading of the supply chain management system. The Company has led the benchmarking assessment of central enterprise procurement and supply chain management for three consecutive years, and was awarded level A in 2024.

Development of an improvement plan

The Company was commissioned by the SASAC of the State Council to organize and carry out the Research on the procurement and Supply Chain Management Models of Overseas Projects of Central Enterprises, and to formulate the plan for improving supply chain management of the Company's overseas projects based on the research results.

Building a green supply chain

- The Company has established a bidding trading platform for idle and waste materials, achieving comprehensive integration of information flow, order flow, logistics and capital flow of idle and waste material bidding, with a premium rate of the platform exceeding 64%.
- ▶ The Company advocated suppliers to carry out green manufacturing, green packaging and green logistics, and promoted centralized procurement of new energy and new infrastructure product categories, so as to reduce the carbon footprint of the entire product lifecycle.

Improvement of digital management

Compliance audit of suppliers

The Company has fully launched the "6P One Center" integrated supply chain management platform, optimized sub-modules, promoted the "five unifications" of standards, data, structure, application and management, and achieved comprehensive control and support for key processes such as performance, settlement, supply chain finance, logistics, warehousing, expediting, supervision, execution monitoring and analysis.

Optimization of platform functions

- ▶ The Company upgraded the equipment platform by realizing the whole-process control of online filling, review and centralized procurement and negotiation, and completing the connection of state-owned asset data and optimization of plan and contract management.
- ▶ The Company upgraded the business travel platform by completing the launch of the second phase of the business travel and financial platform reimbursement module, initiating the construction of the third phase, and improving utilization and satisfaction.
- The Company promoted sub-platforms by comprehensively applying cloud manufacturing, cloud warehousing and cloud transportation of Energy Engineering to empower supply chain management.
- ▶ The Company attached great importance to platform operation and maintenance by establishing an operation and maintenance team, ensuring safe and efficient operation, and responding to user needs in a timely manner

The Company conducted audits on key processes such as supplier on-boarding, supplier selection, contract signing, contract performance, contract settlement and payment to ensure that each supplier in the supply chain follows established compliance standards, and to maintain transparency and integrity of the supply chain.

Strengthening procurement management

- ▶ The Company regulated procurement behavior by insisting on "fair, just and open" procurement, creating a favorable business environment and treating small and medium-sized enterprises equally.
- ▶ The Company conducted category management research by completing the Research Report on Category Management of China Energy and the Implementation Plan for Category Management of China Energy, and promoting the adaptation of centralized procurement focus to the "four-new" development.
- ▶ The Company promoted group-level procurement, by amending the 2023-2025 Group-level Centralized Procurement Catalogue, releasing the 2024 Group-level Centralized Procurement Plan, optimizing categories and increasing scale.
- ▶ The tenders of 21 centralized procurement projects were completed throughout the year, with a cumulative framework procurement amount of RMB62.122 billion.
- ▶ The Company deepened regional joint procurement. 33 batches of regional joint procurement were completed throughout the year, with a procurement amount of RMB12.738 billion and a significant cost reduction effect.

The 2nd Supply Chain Cooperation and Development Conference of China Energy

In 2024, in order to strengthen the exchange and cooperation of global industrial and supply chain and build a new platform, the Company organized the 2nd Supply Chain Cooperation Development Conference. In the past three years, the procurement amount of China Energy exceeded RMB120 trillion, of which the cooperation amount in the field of new energy exceeded RMB300 billion, and the international cooperation amount reached RMB50 billion, fully demonstrating the level of efficiency creation in the supply chain.



Optimizing customer service

The Company attaches great importance to creating value for customers, and is committed to meeting customer needs. protecting customer rights and interests, strengthening customer relationships and improving customer satisfaction. Throughout the year, the Company conducted more than 86 high-end matching programmes and signed 21 headquarterto-headquarter strategic cooperation agreements, with a view to establishing sustainable win-win and mutually beneficial relationships with customers by providing high-quality services throughout the project lifecycle. During the Reporting Period, there were no customer complaints or no incidents of customer privacy leakage in the domestic market.

Protecting rights and interests

The Company continued to strengthen performance supervision mechanism, timely identified the problems that exist in the project management process, and actively guided, supervised and coordinated relevant units to formulate effective response measures to ensure that the concerns of all parties have been properly addressed.

The Company has established strict customer information confidentiality regulations to comprehensively strengthen the defense for customer privacy protection and information security.

Element El	

Protecting privacy

Promoting satisfaction

The Company amended the Implementation Rules for Satisfaction Management of Customers Developed in the Domestic Market (《境內市場開發 客戶滿意度管理實施細則》) to optimize the scope of customer satisfaction survey, the grading of customer satisfaction evaluation indicators, the content of satisfaction survey, the process of satisfaction survey and the requirements for satisfaction survey management, so as to continuously improve the customer satisfaction management system.



111.500

PEOPLE-ORIENTED TO JOINTLY BUILD A HARMONIOUS NEW ECOSYSTEM

China Energy adheres to the concept of "people-oriented" firmly keeps the bottom line of safety production, safeguards the employees, strengthens employee care, and is committed to creating a happy and harmonious workplace, and achieving common growth of employees and the enterprise.

Building the Great Wa 50 of Security

53

- Lean Quality Manage 52
 - **Protecting Employee Rights** and Interests
- 54 **Activating Talent Potential**
- 55 **Creating a Happy Workplace**

Building the Great Wall of Security

The Company fully implemented the requirements of laws and regulations such as the Opinions of the CPC Central Committee and the State Council on Promoting Reform and Development of Work Safety, the Safety Production Law and the Measures for Work Safety Incident Reporting, Investigation and Disposition, and established and improved the Management Regulations on Safety Production, the Measures for Management of Safety Risk and the Emergency Management Measures. Closely focusing on the "12 in place", the Company systematically deepened the construction of the "general safety" and "general emergency" systems, coordinated the three-year action to tackle root causes, comprehensively improved the quality of risk and hidden danger investigation and rectification, deeply carried out safety culture education, and strived to enhance the level of intrinsic safety. During the Reporting Period, there were no major production safety accidents or above during the year.

Deepening the security system

Deepening the construction of the "general

- ▶ The Company has upgraded three basic systems including the Management Regulations on Safety Production in accordance with the new version of requirements of the SASAC.
- ▶ The Company promoted the implementation of the "general safety" leadership responsibility system with "the principal responsible person in charge, the responsible person in sub-charge and other responsible persons in comanagement" and the full-time safety director system.
- ▶ The Company has established a QHSE quantitative evaluation system that combines "result assessment and process evaluation", and made regularly scheduling and report.
- ▶ The Company has established six regional emergency command centers based on regional headquarters, and continuously improved the "general emergency" system with "general management by the Group, leadership by regions and implementation by enterprises".

Focusing on strengthening the foundation of grassroots safety managemen

- ▶ The Company cracked the problem of "uncontrollable" management, promoted security standardization, data visualization and quantifiable evaluation, and comprehensively implemented grid management and "three-special" management.
- ▶ The Company cracked the "unexpected" risk issue, and upgraded the Hard Measures for Major Risk Control, clarifying "management", "technology" and "stopping" control measures in 15 key areas.
- ▶ The Company cracked the problem of insufficient warning methods and launched the company-level safety risk perception and warning platform to promote real-time risk monitoring, advanced warning and joint disposal.

Improving the mechanism for mplementing safety productior

- The Company held the first comprehensive safety production training examination for enterprise leaders.
- ▶ The company signed the QHSE responsibility agreements for functional departments and business units for the first time
- ▶ The accidents and incidents were investigated and treated equally for the first time
- The Company implemented a safety production grading and guarantee responsibility system at all levels.

Coordinating the launch of the three

- > The Company integrated fundamental tackling with the "12 in place", and refined the "eight major projects and 20 tasks" which were co-ordinated and promoted as the main line of QHSE work for the year.
- > The main person in charge of the Company personally led the team to carry out safety supervision, and personally coordinated and supervised key safety production work, while the persons in charge of enterprises at all levels regularly went to the front line to supervise the QHSE work.
- ▶ The Company adhered to the protection mechanism of "monthly inventory, quarterly scheduling and annual assessment"
- ▶ The Office of the Work Safety Committee of the State Council and other higher-level units published the QHSE typical experience and practices of the Company in notifications and briefings for five times.

Strengthening the identification of potential safety hazards

dentifing the bottom line of risks and hidden danders

The Company has established a weekly safety risk supervision mechanism for responsible persons of enterprises, accurately controlled the focus of risk prevention and control, and carried out the screening of risks and hidden dangers in areas of accidents and disasters. The Company organized a full-coverage risk inspection and mitigation of 76 highways under construction and in operation, 212 tunnels and 702 bridges, systematically sorted out the fire safety responsibility interfaces of 4,160 rented houses and 35,300 self-built (leasing) houses, and comprehensively investigated the safety status of 98 newly merged and acquired and restructured enterprises in the past five years.

rectifying "small, scattered and

The Company strengthened cross-checks and centralized supervision of new energy projects and "small, scattered and remote" projects, supervised prominent issues such as "failure to management and losing control", and held four special meetings to urge improvement.

production risks and hidden dangers. lighlighting key

Comprehensively trengthening strict bublic security

The Company strictly organized the QHSE supervision and inspection. 89 projects were directly supervised and inspected at the Company level, and 1,889 people were investigated and held accountable retroactively.

Vigorously carrying out safety education

The Company continued to strengthen the construction of safety culture, deeply organized activities such as safety production training and examination for enterprise leaders, safety production month and accident warning, and promoted safety production education into enterprises, projects, teams and positions, so as to solidify safety culture in the heart and put it into practice. In 2024, the Company won 2 second prizes and 5 third prizes of the National Safety Science and Technology Progress Award, and 16 units were awarded the title of the Excellent Demonstration Project for National Electricity Safety Culture Construction.



China Energy organized the largest, highest-level and widestcoverage safety production training examination for enterprise leaders in the history of the Company

The Company systematically carried out the investigation and rectification of safety

The Company organized safety production inspections in spring and autumn.

The company carried out special governance measures such as special investigation of electrochemical energy storage and inspection of power equipment quality hazards.



China Energy carefully organized the "Safety Production Month" activity in 2024, which were reported by CCTV and provincial and municipal television stations for many times

Lean Quality Management

In 2024, the Company

won 23

> national quality awards, including

international ICOCC gold awards

won 1360

provincial and ministerial quality awards

The Company strictly follows a series of relevant laws, regulations and standard specifications such as the Law of the People's Republic of China on Product Quality, the Construction Law of the People's Republic of China and the Regulations on Quality Management of Construction Projects, and has formulated and improved the Company's quality management system such as the Quality Management Regulations, the QHSE Education and Training Management Measures and the Management Review Measures for Quality, Environment and Occupational Health and Safety Management System. The Company adheres to the management policy of "scientific management, integrity and compliance, continuous improvement and outstanding brand", implements the concept of "one-time excellence and quality-based", builds a "five all" quality management system for all employees, all elements, all processes, all data and all cycles, and comprehensively consolidates the "quality" aim of new quality productive forces, with zero quality accidents throughout the year.

Enhancing the quality management synergy

- ▶ The company improved the QHSE integrated management system and mechanism. integrated resource elements, and comprehensively promoted system construction, supervision and inspection, assessment and evaluation, etc., so as to improve the quality and efficiency of quality work.
- The Company strengthened quality training, carried out special rectification of "going through the motion" of QHSE, and improved the quality awareness and quality ability of all employees.

Improving the operational level of the system

- ▶ The Company comprehensively checked and analyzed the construction and operation of the three-standard system of subsidiaries, issued a special report on system management, and proposed suggestions and improvement measures in terms of common problem prevention and control, system management strengthening, QHSE risk prevention and control, and accident (incident) prevention.
- ▶ The Company established a system management experience sharing platform to promote subsidiaries to continuously improve the adaptability, adequacy and effectiveness of the three-standard system, and steadily enhanced the "three major qualities" of engineering, products and services.

Carrying out quality improvement activities

- ▶ The Company carried out the prevention and treatment action of quality defects. established a mechanism for reporting positive and negative typical cases, selected and promoted practical cases of prevention and control, and continued to promote refined management of engineering quality; and organized QHSE integrated inspections, thoroughly rectified quality violations, and gradually established a regular and long-term mechanism for preventing and controlling quality defects.
- ▶ The Company carried out the "National Quality Month" activity, with a focus on "five strengthening and five enhancements", deployed activities such as quality learning and education, quality process control, engineering refinement and excellence, mass guality activities and exchange of guality culture achievements.
- > The Company promoted the activities of the quality management team, and continued to carry out group-level QC achievement evaluation and exchange. The Company has won multiple awards from central enterprise QC achievement publication competitions or industry associations, and has obtained 375 outstanding QC achievements at the provincial and ministerial level or above.

Protecting Employee Rights and Interests

The Company strictly complied with relevant laws and regulations such as the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, the Social Insurance Law of the People's Republic of China, the Employment Promotion Law of the People's Republic of China, and the Regulations on the Prohibition of Child Labor, as well as internationally recognized human rights conventions and guidelines to employ employees in accordance with laws and regulations and effectively protect the rights and interests of employees. During the Reporting Period, the Company did not have any violations of the standards, rules and regulations concerning child labor and forced labor of international prevail, countries and places of operation.

Equal employment

By adhering to the principle of equal and diverse employment, the Company has formulated and implemented the Regulations on Labor Employment Management and the Implementation Rules for Labor Contract Management, and does not impose any recruitment restrictions based on nationality, race, color, gender, religious beliefs, etc. The Company has actively implemented talent internationalization and localization strategies to achieve employee diversity, and standardized the collection and approval process of recruitment information, and strictly prohibited and resisted employment of child labor or forced labor in any form, so as to respect and protect human rights.

Democratic management

The Company adhered to the concept of wholeheartedly relying on employees to run the enterprise, continuously promoted the institutionalization and standardization of democratic management, deeply promoted the transparency of factory affairs, and fully mobilized the enthusiasm of employees to participate in the reform and development of the enterprise. In 2024. 3 subsidiaries of the Company were awarded the title of the "2021-2023 National Advanced Units in the Democratic Management of Factory Affairs Transparency" by the National Factory Affairs Transparency Coordination Group.



Compensation and benefits

The Company continued to improve its corporate compensation and welfare system, established the post performance salary system of "setting salary based on job, changing salary based on post changes and multiple salaries on same post", and paid salaries on a monthly basis to ensure employees' rights to labor remuneration, working hours and vacation. The Company makes contributions to social insurance for employees in accordance with the law, and has established the housing provident fund, supplementary medical insurance, and enterprise annuity system.

Occupational health

The Company regularly organized the detection and evaluation of occupational disease hazards, strictly implemented protection and management during the labor process, and prevented and controlled occupational disease hazards from the source; strengthened the management of labor protection supplies, and standardized the installation of occupational hazard protection facilities and warning signs; strengthened occupational health promotion and training, and enhanced the awareness and ability of all employees in occupational health protection; and regularly conducted post physical examinations to effectively prevent, control and eliminate occupational diseases. During the Reporting Period, there were no occupational health emergencies.

Activating Talent Potential

The Company insisted that talent is the first resource, firmly established the concept of "focusing on talent is focusing on development", implemented the spirit of the Company's Talent Work Conference and the "4223" Talent Strengthening Enterprise Strategy, deeply implemented the "talent construction: project, strengthened the driving role of talent in leading development, smoothened career promotion channels, optimized the incentive mechanism, and improved training and education systems, to further stimulate employees' work enthusiasm and creativity, and achieve common growth of the enterprise and employees.

In 2024

people were selected in the first batch of top scientific and technological talent pool by the SASAC of the State Council

Strengthening talent cultivation

The Company has improved the "1+5+N" talent development project training program system, released the 2024 Key Points of Human Resources Management, and systematically deployed 7 major tasks and 72 key measures.

The Company organized and completed the recommendation and selection of the first batch of training targets for the talent project of Energy Engineering, with 11,800 people in the database.

The Company innovatively planned and implemented the "Energy Engineering Star" plan, built a standard system for young high-potential talents, and accelerated the growth and development of young talents.

people were appraised as experts enjoying special government subsidies from the State Council

person won the 6th Outstanding Engineer Award

Optimizing incentive mechanism

people were

batch of "Great

Craftsmen" talent

cultivation targets

selected as the first

The Company optimized the management system for employee position sequences and career development channels and "1+N" title appraisal system, and amended the Regulations on the Management of Enterprise Position Sequence and the Implementation Plan for the Selection and Appointment of Expert Positions.

The Company has established a comprehensive compensation incentive and guarantee mechanism for scientific and technological innovation talents, as well as a mechanism for rewarding and sharing scientific and technological achievements.

The Company continued to promote the expansion of the 3+2 medium- and longterm incentive mechanism, comprehensively promoted post dividends and excess profit sharing mechanisms, and promoted different forms of equity incentives.

Continuous Training for Entrepreneurial Talents and Young Cadres

China Energy continued to organize and implement training for entrepreneurial talents and young cadres, scientifically organized and carried out various teaching and practical activities, and systematically improved the effectiveness of training. In 2024, the Company held 4 training sessions of entrepreneurial talents, training 242 people, and 4 training sessions of young cadres, training 254 people. The abilities and qualities of entrepreneurial talents and young cadres have been systematically improved.



throughout the year.

Wang Huaixiang Skill Master

Studio was

selected as

a national

level studio

people won the Mao

Award - Constructor

Training Project Management.

Improving training system

The Company improved the "1+N"

education and training system and

amended the Implementation Rules for

The Company initiated the construction

of the internal training teacher pool,

accumulating over 100 high-end teachers

and more than 200 high-guality courses,

and developed a high-end field research

The Company held 5 training courses for

entrepreneurial talents and young cadres, 1

course for overseas leaders, and 4 course

for project managers and other cadres

Yisheng Science

and Technology

Award

base

Creating a Happy Workplace

The Company insisted on integrating its own development with the improvement of employees' well-being, paid attention to the work-life balance of employees, continuously enriched cultural and sports activities, paid attention to employees' mental health, and carried out caring activities such as recruitment in spring, high-temperature cares and subsidies in summer, public welfare education in autumn and provision of care and warmth in winter. According to the difficulties and needs of employees, various measures were taken to help solve the employment problems of "zero employment" families and children of disadvantaged employees, care for left-behind children and empty-nest elderly, provide special protection for female employees, and provide after-school care services for employees' children, so as to continuously enhance employees' sense of happiness and belonging.



In January 2024, China Energy held the first employee cultural achievement exhibition activity of "Tributing to Struggle, Pursuing Three-New and Sharing Glory." In the way of self-written, self-directed and selfperformed by employees from each unit, the activity comprehensively showcased the outstanding achievements of the Company's reform and development in recent years, and fully demonstrated the progressive and enterprising spirit of Energy Engineering people in the new era.



In June 2024, China Energy hosted the 2024 "Sunshine Cup" staff men's basketball competition in power industry with high guality, and China Energy defended its championship with a record of eight wins.



In October 2024, China Energy held the 2024 "Four-New Cups" staff badminton competition, with 28 representative teams from 29 subsidiaries and more than 200 staff athletes participating in the competition.



In March 2024, China Energy ECCI organized the "Innovative Greenness Reflecting Fragrance" themed micro landscape production activity, and China Energy (Wuxi) Project Company, a subsidiary, held the Womers' Day tea art cultural experience activity named as"Women Shining & Tea Fragrance Pleasing Life" to demonstrate the unique style and charm of women in the new era.



In July 2024, China Energy CNEEC held the walking activity named as "Healthy CEEC and Happy CEEC" in the South Park of Beijing Olympic Forest Park, in which nearly 300 cadres and employees participated.



In October 2024, China Energy Hunan Thermal Power launched the second series of activities for the Mental Health Festival, covering workplace emotion management and counseling, as well as that deportment defines mentality. The activities aimed to further improve employees' self-psychological adjustment ability.



Contributing to Society and Creating a Beautiful New Future



Assistance in Rural Revitalization

60 Support for Regional Development

61

63

Enthusiasm for public welfare

Deep-touching overseas fulfillment of responsibilities The Company always has "greatness of the country" in the mind, fully supports rural revitalization, supports regional coordinated development, carries out public welfare and charity actions with sincerity and emotion, actively participates in disaster relief activities, and deepens overseas responsibilities, and demonstrates the responsibilities of a central enterprise through practical actions, to continuously enhance people' s well-being and creates a better life together.



Assistance in Rural Revitalization

The Company earnestly practiced the people-centered development concept, learned and applied the experience of the "Ten Million Project", and scientifically prepared the targeted assistance work plan, counterpart support work plan and consumption assistance plan for 2024. Focusing on the "five major revitalizations" of industry, talent, culture, ecology and organization, the Company innovated assistance measures, coordinated and promoted various assistance work, promoted the consolidation and expansion of effective connection between poverty alleviation achievements and rural revitalization, and effectively enhanced the development vitality of assisted areas, so as to contribute to building an agricultural powerhouse.

In 2024

the Company invested RMB

.56 million in assistance funds

the amount of assistance through consumption was RMB

representing a yearon-year increase of



- The Company deepened technological innovation and took many measures to strengthen characteristic advantageous industries such as Xilin ginger, Zhenba fonjac and Zhenba cold water fish.
- The Company provided demonstrative guidance to construct high standard mulberry garden demonstration sites, flexible sunlight demonstration greenhouses and other projects, so as to accelerate the transformation of traditional industries into modern agriculture.
- ▶ Focusing on the integration of "agriculture, culture and tourism", the Company built the research and practical education bases for primary and secondary school students and other projects to empower the innovative development of rural cultural and tourism industry.
- Demand-oriented ▶ The Company helped Zhenba County and Xilin County to comprehensively cultivate all kinds of talents, expanding the total number, improving the quality and optimizing the structure.
 - The Company trained a total of 6,777 people, hitting a new record high.
- Intangible heritage inheriting for cultural revitalization

Innovation and

integration for industrial

revitalization

for talent revitalization

- The Company supported Zhenba County in conducting the second survey of intangible cultural heritage, formulated the intancible heritage plan protection, comprehensively understood and mastered the current status of the protection of intangible cultural heritage in the county, and urgently identified and rescued a number of intangible heritage projects with historical, cultural and scientific value, especially those in endangered status.
- The Company assisted Xilin County in carrying out a series of folk activities to celebrate the "Double Third" Gexu Festival of Guangxi Zhuang, and organized and carried out a number of propaganda and voluntary activities to promote rural customs change and to unite the new trend of upward and good times.
- ▶ The Company continued to promote key assistance to Xinglong Town in Zhenba County, investing RMB3 million to build the "Chaqi Town and Yunju Zhenba (茶棲小鎮、雲居鎮巴)" characteristic brand project; assisted Xinglong Town in building the Shuitianba Community Heiwan cement reinforced concrete flat bridge project, the market town beautification project and the lighting project of Chuxiyuan AAA Scenic Area, etc.; and promoted the integrated development of tea tourism in Xinglong Town, and drove the prosperous development of industries such as catering, accommodation and agricultural product sales in Xinglong market town.
- ▶ The Company implemented a series of infrastructure construction projects in Xilin County, establishing a perfect drainage and sewage system for Yanglong Tun in Yanglong Village which solved problems such as rainwater accumulation and sewage cross flow and improved the sanitary environment of the village, benefiting 365 households and 1,811 people.

Partnership co-building for organizational revitalization

Characteristic

brands for ecological

revitalization

The Company has transformed the political and organizational advantages of the Party into development advantages for promoting rural revitalization through partnership co-building with grassroots Party organizations in assisted counties, implementing the governance responsibilities of the first secretary stationed in villages and supporting the collective economy of villages.



In August 2024, Song Hailiang, the secretary to the Party committee and chairman of the Board of Directors of China Energy, went to Basu County, Qambo City, Tibet, to investigate the counterpart support work for Tibet, and made a field visit to the project of assisting the construction of teacher relocation housing of the first primary school in Basu County. He convened a symposium, emphasizing the need to implement the requirements of targeted assistance to Tibet, and to promote high-quality economic and social development in Basu County by leveraging the advantages of central enterprises, and signed the 2024 Targeted Assistance Agreement with Basu County, donating RMB1.5 million of assistance funds to help improve local livelihoods and promote industrial development.

Scientific care supports the healthy growth of rural children

Based on the actual situation and the needs of the people in Zhenba County, Shaanxi Province, China Energy has built a childcare service center, and cultivated professional caregivers, to make up for the shortcomings of infant and childcare services in Zhenba County. On the basis of in-depth research, the Company selected and built three childcare centers in Town Center, Yudu Town and Sanyuan Town of Zhenba County, and systematically trained and built a team of professional talents by using various methods and platforms such as digital management, business operation incentives, organizational empowerment and online learning, to provide scientific and effective support for family parenting.





In October 2024, the "Optimal Selection by Gezhouba Cement (葛泥優選)" e-commerce agricultural support team of Gezhouba Cement Company of China Energy was invited to attend the 2024 National Agricultural and Commercial Interconnection and Rural Revitalization Production and Sales Matching Activity hosted by the Circulation Industry Promotion Center of the Ministry of Commerce. As of the end of 2024, the full matrix e-commerce account of "Optimal Selection by Gezhouba Cement (葛泥優選)" had released more than 2,000 short videos, with a total playback amount of over 350 million, a total of more than 10 million likes and comments, more than 400,000 orders and more than 180 types of agricultural products for sale.



Herb-photovoltaic complementary activates new driving forces for agricultural development

In July 2024, the Shilin "Herb-photovoltaic Complementary" 80MW Photovoltaic Project undertaken by China Energy was connected to the grid for power transmission. By fully utilizing local light resources and adopting the innovative model of "new energy + agricultural industry" integrated development, the project organically combines photovoltaic power generation with agricultural planting, realizing on-board power generation and off-board planting of medicinal herbs, which brings income from medicinal herbs to the locality while obtaining benefits of power generation.



Support for Regional Development

The Company actively promoted regional coordinated development, actively integrated, planed in advance and accurately met the needs of major regional development strategies, participated in the construction of major regional strategic projects and livelihood projects, comprehensively optimized the "three layouts" of productivity and industry, market and region, and resources and capital, and insisted on transforming regional resource advantages into industrial development advantages, thus contributing to the high quality development of the regional economy.

Xiong'an new landmark, demonstrating the style of China Energy

The "Energy Engineering · New Energy Eco-City" Exhibition Center of China Energy is located in the hub area of Xiong'an Station, with a total site area of approximately 440 mu and a gross floor area of approximately 840.000 square meters, which is designed to create a "carbon neutrality" technology demonstration park according to the concept of "eight networks" integration planning of the city. The exhibition center, with a gross floor area of approximately 6,219 square meters, adopts a zero-carbon technology system to achieve an comprehensive annual carbon reduction rate of 100%, reaching the level of zero-carbon building, and is one of the first batch of Green Building +" demonstration projects in Xiong'an New Area, which strongly supports the implementation of development planning of Xiong'an New Area.



Connecting the east-west navigation channel to support the development of the Yangtze River Economic Belt

In March 2024, the 15-hole sluice piers of the Sichuan Minjiang Pengshan Jianzishan Avionic Hub Project (四川岷江彭山尖子山航電樞紐工程), a project in the integration of investment, construction and operation implemented by China Energy, completed concrete placement on the top. The project mainly focuses on shipping and combines navigation and electronics. After completion, it will open up a waterway from Meishan to Chengdu to Shanghai, which can accommodate 500-tonne ships and realize the transportation of heavy materials. It is of great significance for undertaking industrial transfer in eastern China, forming a new pattern of coastal and inland linkage development and opening up, and promoting the development of the Yangtze River Economic Belt.



Transmitting electricity from Xinjiang to Anhui to empower economic and social development in both region

In November 2024, the Unit 1 of Xinjiang Wanneng Yinggema Power Plant (新疆皖能英格瑪電廠), which was designed and constructed by China Energy, was successfully completed trial operation at full load for 168 hours and was put into operation smoothly. The project is located in the Xiheshan Industrial Park in Changji, Xinjiang, and is in line with the national energy planning strategy that "Zhundong Coal Base focuses on developing coal-fired and coal chemical demonstration projects, and participates in transporting coal and transmitting electricity outwards from Xinjiang". After completion, the project will be able to deliver 7 billion kWh of electricity to Anhui every year, which will make a positive contribution to promoting economic and social development in both Anhui and Xinjiang.





In 2024, the world's first four-terminal ±800 kV ultra-high voltage flexible DC project, namely ±800 kV ultra-high voltage DC transmission project from Southeast Tibet to the Guangdong, Hong Kong and Macao Greater Bay Area, designed and constructed by China Energy, successfully passed the feasibility study and evaluation. The project is the first 10-million-kilowatt direct current transmission channel in Tibet, and upon completion, it will promote the efficient utilization of clean energy in Southeast Tibet and improve the safety and reliability of power supply in the Bay Area through the transmission of power from the west to the east.



In December 2024, the main construction of the fourth phase 2×1000 MW coal-fired power project of Anhui Huainan Luohe Power Plant, constructed by China Energy, officially started. The project, with a total investment of RMB7.57 billion, is a largecapacity, high-parameter ultra-supercritical secondary reheat coal-fired power generation unit to be built on the site of the decommissioned unit and idle land. Upon completion, the annual power generation capacity of the project can reach 10 billion kWh, which is of great significance to Anhui in building the Yangtze River Delta ultra-high voltage power protection hub and promoting the high-quality development of the regional economy.

Enthusiasm for public welfare

The Company actively organizes and carries out various voluntary public welfare activities. In 2024, the Company invested a total of RMB29.804 million in external donations to support the development of education, culture, sports and other undertakings in local communities, so as to jointly build a better and happier home. The Company has been deeply integrated into the national emergency rescue system, and has been at the forefront of major rescue operations such as Dongting Lake plugging, flood relief in Zixing, "Makar" typhoon rescue, and the earthquake in Dingri, Tibet, which have been fully recognized by all sectors of the society.



In January 2025, a 6.8-magnitude earthquake occurred in Dingri County, Rikaze City, Tibet, and China Energy responded quickly by activating the emergency response mechanism, organizing rescue teams, carrying out rescue and relief work, delivering urgently needed supplies to the affected people, and taking the initiative to undertake the lighting project for the resettlement tents in Cuoquo Township, which was the most severely affected area, so as to make a little bit of light to warm up the winter night, and to make contributions to the anti-earthquake disaster relief work.









Emergency blasting to help keep Dongting safe

In July 2024, the dike of Dongting Lake in Huarong County, Yueyang City, Hunan Province collapsed, and the situation was urgent. Explosive Xianghong Company, a subsidiary of China Energy, responded guickly, formed a rescue team overnight, deployed emergency equipment to carry out blasting operations, and successfully blasted 7,000 tons of rock, providing key protection for rescue and relief. Hunan Thermal Power and other units of China Energy urgently deployed living materials to support the disaster area, contributing to the protection of home along the Dongting Lake





Gezhouba Yichang Base of China Energy launched volunteer service action

In May 2024, Gezhouba Yichang Base of China Energy officially launched a volunteer service program. Gezhouba Integrated Management Center set up five volunteer service teams, including the volunteer service team for the elderly, the volunteer service team for medical care, the volunteer service team for foreign workers, the volunteer service team for the government and enterprises, and the volunteer service team for the public welfare, to provide "six assistance" volunteer services for the elderly, orphans, the needy, the students, the disabled, and medical care in the local area. In 2024, Yichang base organized more than 250 volunteer activities with more than 2,500 participants.



China Energy Guangdong Thermal Power prepared for the super typhoon "Makar"

In September 2024, super typhoon "Makar" landed in Wenchang City, Hainan and Xuwen County, Guangdong, caused damage to a large number of power and communication facilities. China Energy Guangdong Thermal Power coordinated the deployment of rescue forces at the first time, and formed an emergency team to fight against typhoon "Makar" to assist in the front line of the disaster, and fought continuously for 15 days, and invested nearly 1,595 people in rescue personnel and more than 300 sets of rescue equipment, and wrote an excellent answer sheet of rescue and replication of electricity with practical actions.





Deep-touching overseas fulfillment of responsibilities

Adhering to the concept of common destiny of mankind, the Company consciously abides by the laws and regulations of the countries where it operates, respects local religions and cultures, insists on localization of operations, recruits a large number of local talents, promotes the employment of local residents, nurtures a large number of professional and technical talents for the host countries through mentor-apprentice pairing, technical training, visits to China, etc., strengthens the communication and exchange of information with the stakeholders in the host countries, and supports the development of the local economy and the livelihood of the local people.

- Cooperation Exemplary Award by SSU Special Security Unit, KPK, Pakistan.
- Excellent Welding Project Award by China Engineering Welding Association.
- Award Certificate and the 2024 International Engineering Green Supply Chain Management "Benchmark Project".
- patents and 17 utility model patents.
- ▶ Pakistan Murtiari Lahore ±660kV DC Transmission Project won the 2024 China Power Quality Project.



The Caliwa Dam Project Department in the Philippines of Guangxi Engineering Bureau of China Energy donated relief materials to the Daraitan village, which was affected by super typhoon "Gomez".



Uzbekistan Samarkand Cement Company of China Energy and the local 44 secondary schools jointly organized a school building assistance activity, donating more than 300 pieces (sets) of teaching equipment and stationery, benefiting more than 300 teachers and students.

Overseas Project Awards

▶ Balakot Hydropower Station Project in Pakistan was awarded the China-Pakistan Economic Corridor Security

► Karachi Nuclear Power Plant K2/K3 Unit Regular Island Civil and Installation Project in Pakistan was selected as

Saudi Alshubah Consortium was awarded the 2024 Roval Society for the Prevention of Accidents (RoSPA) Safety Gold

▶ Saudi Arabia Alshubah Consortium Project Division was awarded 21 national patents, including 4 invention



Uzbekistan Tashkent Solar Storage Project Department of China Energy Engineering Group International Engineering Co., Ltd. visited the local school 3shkola to show sympathy and care for the poor students.



Technology Company of China Energy organized a "China Tour" for Vietnamese employees on the "One Belt and One Road" project, inviting seven outstanding employees to visit and experience China to promote cultural exchanges and people-to-people ties.

Outlook



Appendix

Key Performance

Name of indicator	Unit	2022	2023	2024				
Environmental Performance								
Emissions ¹								
Total greenhouse gas emissions ²	tonnes of CO2e	6,514,825	8,094,067	7,786,243				
Direct greenhouse gas emissions	tonnes of CO2e	3,575,567	4,526,525	3,191,848				
Indirect greenhouse gas emissions	tonnes of CO2e	2,939,258	3,567,542	2,596,006				
Greenhouse gas emissions per unit revenue	tonnes of CO2e/ RMB0'000	0.18	0.18	0.18				
Total sulfur dioxide emissions	tonnes	7,178	6,216	3,773				
Total nitrogen oxides emissions	tonnes	15,601	14,192	3,280				
Chemical Oxygen Demand (COD)	tonnes	6,285	5,860	5,170				
Total ammonia nitrogen emissions	tonnes	969	944	838				
Total hazardous wastes ³	tonnes	1,217	1,733	2,235				
Total hazardous wastes generated per unit of revenue	tonnes/RMB'00 million	0.33	0.39	0.52				
Total non-hazardous wastes ⁴	tonnes	27,106,162	35,007,608	16,558,276				
Total non-hazardous wastes generated per unit of revenue	tonnes/RMB'00 million	0.76	0.79	0.39				
Use of Resources⁵								
Electricity consumption	Ten thousand kWh	434,761	489,144	467,356				
Gasoline consumption	Tonnes	57,162	64,043	69,196				
Diesel consumption	Tonnes	885,111	801,039	940,979				

1 Wastes statistics covers the core businesses of the Company in the PRC including survey, design and consulting services, and construction and contracting, of which the cement segment is not included in the greenhouse gas emissions related indicators.

2 The calculation of greenhouse gas emission is based on the Greenhouse Gas Protocol – Corporate Accounting and Reporting Standards (2012 revised) issued by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), and the Sixth Evaluation Report issued by Intergovernmental Panel on Climate Change (IPCC).

3 The Company's hazardous waste includes hazardous waste in the equipment sector, hazardous waste in the civil explosion sector, and other hazardous waste generated in daily office operations. All hazardous waste generated will be treated by qualified professional institutions for harmless treatment.

4 Non-hazardous wastes include construction waste and sludge generated by sewage treatment plant under the environmental protection segment.

5 As the Company is a comprehensive solution provider in the power industry, the statistical scope of resource consumption covers its core businesses located in the PRC such as survey, design and consultancy, construction and contracting, etc. Indicators such as packaging materials and products sold or delivered but required to be recalled due to safety and healthy reasons as a percentage of the total, are not material ESG related issues of the Company and therefore have not been disclosed. The scope of disclosure does not cover the energy consumption of the cement segment. The statistical units of energy-saving operation index data are presented according to the original statistical units.

Name of indicator	Unit	2022	2023	2024
Natural gas consumption	Ten thousand cubic meters	629	675	1,004
Fuel oil consumption	Tonnes	35	30	80
Purchased power consumption	Million kilojoules	78,017	828,063	801,554
Other energy consumption	Tonnes of standard coal equivalent	71,908	281,342	455,290
Non- petrochemical energy consumption	Tonnes of standard coal equivalent	/	345,056	34,219
Proportion of non-petrochemical energy use	%	/	7.10	1.69
Comprehensive energy consumption ⁶	Tonnes of standard coal equivalent	2,147,564	2,587,838	2,021,045
Unit comprehensive energy consumption for operating revenue	Tonnes of standard coal equivalent/RMB0'000	0.060	0.058	0.047
Total production water consumption	Tonnes	25,752,061	7,379,558	16,417,200
Unit water consumption for operating revenue	Tonnes/RMB0'000	0.718	0.179	0.384
s	ocial Performance			
Anti-corruption				
Number of trainings on anti-corruption publicity and education	/	1,045	1,033	1,158
Total number of participants in training on anti- corruption publicity and education	Personnel time	152,742	131,015	143,185
No. of cases involved in corruption and bribery litigation	Case	3	1	5
No. of personnel subject to punishment due to corruption and bribery	Personnel	3	2	5
No. of training on discipline inspection and supervision business	/	551	481	169
No. of personnel participated in training on discipline inspection and supervision business	Personnel	3,752	3,939	596
No. of hours of training on discipline inspection and supervision business in total	Hour	1,189	1,256	1,331
No. of personnel/time of Directors of the Company who participated in the training on anti-corruption publicity and education	Personnel time	34	34	6
No. of personnel/time of employees of the Company who participated in the training on anti- corruption publicity and education	Personnel time	152,708	131,015	143,185
Product Responsibility				
Total number of patents ⁷	/	11,372	15,828	11,387
Number of new patents	/	2,162	2,085	1,841

6 The comprehensive energy consumption is calculated in accordance with the relevant conversion factors provided in the National Standards of the People's Republic of China, General Rules for the Calculation of Comprehensive Energy Consumption (GB/T2589-2020). 7 The total number dropped due to the Company's no longer paying maintenance for low-value utility model patents in 2024.

Name of	f indicator	Unit	2022	2023	2024
Number of new patents	s for invention	/	334	419	673
Number of new softwar	re copyrights	/	323	293	297
R&D expenditure		RMB in million	11,307	12,800	14,117
Number of technologica	al R&D projects	/	876	634	1,082
Supply Chain Manag	ement				
	Supplier	1	15,902	11,079	12,627
Total number of suppliers by type	Subcontractor	/	14,054	419 293 12,800 634	6,359
	Service provider	/	11,677	7,254	8,313
Number of suppliers by	, Domestic	/	41,510	34 419 23 293 307 12,800 76 634 902 11,079 054 5,073 677 7,254 510 23,366 23 40 ,608 117,039 ,608 117,039 0 4 890 93,332 829 23,707 ,270 42,570 ,584 29,598 ,754 33,323 000 11,548 843 2,931 ,871 17,594 ,581 24,179 493 18,183 351 2,362 714 6,620 ,132 10,933 98 863	27,260
region	Overseas	/	123		39
Employment ⁸					
Total number of employ	yees	Person	114,608	117,039	116,388
	Full-time	Person	114,608	117,039	116,388
By employment type	Part-time ⁹	Person	0	4	0
	Male	Person	91,890	93,332	91,554
By gender	Female	Person	22,829	23,707	24,834
	Aged 35 and below	Person	40,270	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	44,039
	Aged 36 to 45	Person	28,584		29,404
By age	Aged 46 to 54	Person	33,754	33,323	31,344
	Aged 55 and above	Person	12,000	11,548	11,601
	Senior professional	Person	2,843	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3,180
Imber of new patents for Imber of new software of Imber of technological Range Imber of technological Range Imber of suppliers by type imber of suppliers by $\frac{Dc}{Su}$ gion $\frac{Dc}{Su}$ tal number of employees employment ⁸ tal number of employees employment type $\frac{Fu}{Pa}$ gender $\frac{Ag}{Ag}$ age $\frac{Ag}{Ag}$ age $\frac{Ag}{Ag}$ itile and skill level $\frac{Fu}{Pa}$	Deputy senior	Person	16,871	17,594	18,385
	ber of new patents for invention/ 334 419 ber of new software copyrights/ 323 293 expenditureRMB in million $11,307$ $12,800$ ber of technological R&D projects/ 876 634 ply Chain Management/ $15,902$ $11,079$ in umber of tilers by typeSubcontractor/ $14,054$ $5,073$ Service provider/ $11,677$ 7.254 ber of suppliers by mDomestic/ $41,510$ $23,366$ overseas/ 123 40 toymesticnumber of employeesPerson $114,608$ $117,039$ mployment typeFull-timePerson $114,608$ $117,039$ mployment typefemalePerson 0 4 enderMalePerson $22,829$ $23,707$ geAged 35 and belowPerson $28,584$ $29,598$ Aged 36 to 45Person $28,584$ $29,598$ Aged 36 to 54Person $23,754$ $33,323$ Aged 55 and abovePerson $2,843$ $2,931$ Deputy seniorPerson $2,843$ $2,931$ Deputy seniorPerson $2,551$ $2,362$ IntermediatePerson $2,351$ $2,362$ LiniorPerson $2,551$ $2,362$ IntermediatePerson $2,551$ $2,362$ IntermediatePerson $2,550$ $3,518$ JuniorPerson $2,551$	24,179	25,562		
	Junior	Person	18,493	18,183	18,765
	Senior technician	Person	2,351	2,362	2,481
By title and skill level	Technician	Person	6,714	334 419 323 293 1,307 12,800 876 634 5,902 11,079 1,054 5,073 1,677 7,254 1,510 23,366 123 40 4,608 117,039 0 4 1,890 93,332 2,829 23,707 0,270 42,570 3,584 29,598 3,754 33,323 2,000 11,548 ,843 2,931 6,871 17,594 3,581 24,179 3,493 18,183 2,351 2,362 2,132 10,933 ,970 3,518 998 863	6,513
	Senior worker	Person	12,132	10,933	10,209
	Intermediate worker	Person	3,950	3,518	4,286
	Junior worker	Person	998	863	2,130
	Other personnel	Person	26,675	29,856	24,877

8 At present, the Company has not established a statistical mechanism for employee turnover rate by gender, age and geographic area, and are therefore not disclosed.We will try to establish a statistical and disclosure mechanism in the future.

9 The number of part-time employees is not included in the total number of employees and other classified employee data statistics.

Nar	me of indicator	Unit	2022	2023	2024
	PhD holder	Person	372	419	488
	Postgraduate	Person	14,565	16,239	18,057
By educational	Undergraduate	Person	48,868	52,323	54,902
background	College	Person	22,752	21,510	19,821
	Technical secondary school and below	Person	28,051	26,548	23,120
	Management personnel	Person	40,483	38,480	34,198
By position	Professional technical personnel	Person	40,050	47,170	53,499
	Skilled operation personnel	Person	20,005	20,746	19,703
	PhD holderPerson372419PostgraduatePerson14,56516,239UndergraduatePerson48,86852,323CollegePerson22,75221,510Technical secondary school and belowPerson28,05126,548Management personnelPerson40,48338,480Professional technical personnelPerson40,05047,170Skilled operation personnelPerson20,00520,746Other personnelPerson14,07010,643DomesticPerson107,670110,314OverseasPerson6,9386,725sForeign employeesPerson/Management personnel0'000 person-times/39,94Professional technical personnel0'000 person-times/22,12Skilled operation personnel0'000 person-times/22,12Skilled operation personnel0'000 person-times/22,12Skilled operation personnel0'000 person-times/2,21Job training0'000 person-times/2,21Job training0'000 person-times5,385,61Other training0'000 person-times21,6423,90Male%/91,2412,64	8,988			
Du rogion	Domestic	Person	107,670	110,314	110,065
By region	Overseas	Person	6,938	419 16,239 52,323 21,510 26,548 38,480 47,170 20,746 10,643 10,643 110,314 6,725 14,504 510.16 39,94 42.60 15.58 2.21 70.82 5.61 23.90 91.20 86.40 91.24 92.08 88.63 74.28	6,323
Foreign employees	Foreign employees	Person	/	14,504	8,786
Development and	Training				
Total training hours	otal training hours		422.12	510.16	505.92
	Management personnel	0'000 person-times	/	39.94	41.49
Number of trained employees by		0'000 person-times	/	42.60	42.14
type of employees	Skilled operation personnel	0'000 person-times	14,565 $16,239$ $48,868$ $52,323$ $22,752$ $21,510$ $28,051$ $26,548$ $40,483$ $38,480$ $40,050$ $47,170$ $20,005$ $20,746$ $14,070$ $10,643$ $14,070$ $10,643$ $107,670$ $110,314$ $6,938$ $6,725$ $/$ $14,504$ 422.12 510.16 rs $/$ $/$ 39.94 rs $/$ $/$ 39.94 rs $/$ $/$ 15.58 rs $/$ rs $70,208$	16.22	
Overseas Foreign employees Foreign employees Development and Training Total training hours Management participation Number of trained employees by ype of employees Skilled operation Other personnel Job training Job training Continuing edu	Other personnel	0'000 person-times	/	2.21	2.01
	Job training	0'000 person-times	62.37	70.82	73.28
Number of trained employees by training content		0'000 person-times	5.38	5.61	5.67
<u>j</u>	Other training	0'000 person-times	21.64	23.90	22.91
Percentage of	Male	%	/	91.20	92.96
trained employees by gender	Female	%	/	86.40	89.12
Deveenter f	Management personnel	%	/	91.24	91.33
Percentage of trained employees by type of		%	/	92.08	92.05
employees	Skilled operation personnel	%	/	88.63	89.27
Average training	Male	Hour/person	/	74.28	74.16
hours of trained employees by gender	Female	Hour/person	/	16,239 52,323 21,510 26,548 38,480 47,170 20,746 10,643 110,314 6,725 14,504 510.16 39,94 42.60 15.58 2.21 70.82 5.61 23.90 91.20 86.40 91.24 92.08 88.63 74.28	73.76

Appendix

Na	me of indicator	Unit	2022	2023	2024
Average training hours of trained employees by type	Management personnel	Hour/person	/	77.78	78.67
	Professional technical personnel	Hour/person	/	75.14	76.64
of employees	Skilled operation personnel	Hour/person	/	43.09	44.54
Health and Safety					
Investment in safety proc	duction	RMB0'000	361,809	486,596	520,465
Full-time personnel on sa	afety	Person	4,562	8,016	8,346
Total number of employe	ees participating in safety training	0'000 person-times	45.4	48.0	49.7
Safe production accident	afe production accidents		3	3	12
Lost working days due to	o work-related injuries ¹⁰	Day	18,000	18,000	72,000
Full-time employees diec past three years	in production accidents in the	Person	0	0	0
Death rate per thousand three years	full-time employees in the past	Person/thousand persons	0	0	0
Number of employees died in production accidents of contractors (subcontractors)		Person	3	3	17
Community Investmer	nt				
Total external donations		RMB0'000	2,994.43	3,595.4	2980.4

10 The lost working days due to work-related injuries were calculated with reference to the Standards for Lost Working Days for Accident Injury-GB-T15499-1995, and the lost working days for the death of an employee were based on 6,000 working days.

ESG INDEX

(Content of report	Environmental, Social and Governance Reporting Code of the Stock Exchange	Guidelines for Sustainability Report of the Shanghai Stock Exchange
	About the Report		Article 3/ Article 4/ Article 6
Introduction	Chairman's Statement		
Introduction	Board Statement		
	Knowing China Energy		
Strengthening the Foundation to Build a New System for Fulfilling Responsibilities	Optimization of ESG Governance		Article 2/ Article5/ Article 9/ Article51/ Article53
	Strengthening Guidance on Party Building		
	Deepening Construction of Internal Control		Article 52
	Strict Adherence to Business Ethics	B7/B7.2/B7.3	Article 55/ Article 56

Co	ntent of report	Environmental, Social and Governance Reporting Code of the Stock Exchange	Guidelines for Sustainability Report of the Shanghai Stock Exchange
	Actively Addressing Climate Change	D19/D20/D27/D28/D29	Article 21/ Article 22/ Article 23/ Article 24/ Article 26
"Dual carbon" Leading the	Comprehensively Accelerating Green Transformation	A1/A2/A3/D22	Article 20/ Article 27/ Article 28
Co-creation of a New Green Landscape	Continuously Deepening Green Operation	A1/A1.5/A1.6/A2/A2.3/A2.4	Article 29/ Article 30/ Article 31/ Article 33/ Article 34/ Article 35/ Article 36/ Article 37
	Fully Protecting the Beautiful Ecology	A3/A3.1	Article 32
	Deepening the Promotion of Technological Innovation	B6.3	Article 42/ Article 54
Value Creation creating a New	Craftsmanship Casting Monument Project	B6/B6.2/B6.4/B6.5	Article 47/ Article 48
Pattern of Development	Gathering Efforts to Build the "One Belt and One Road"	B6/B8	Article 56
	Working Together for Mutual Benefit and Win-Win	B5/B5.2/B5.3/B5.4	Article 44/ Article 45
	Building the Great Wall of Security	B2/B2.3	Article 47
People-oriented	Lean Quality Management	B6.4	Article 47
to Jointly Build a Harmonious New Ecosystem	Protecting Employee Rights and Interests	B1/B2/B4/B4.1/B4.2	Article 49/ Article 50
	Activating Talent Potential	B3	Article 50
	Creating a Happy Workplace	B1	
	Assistance in Rural Revitalization	B8/B8.1	Article 38/ Article 39
Contributing to Society and Creating a	Support for Regional Development	B8	
Beautiful New Future	Devotion to Public Welfare	B8/B8.1	Article 40
Future	In-depth Overseas Fulfilment of Responsibilities	B8/B8.1	
Prospects			
Appendix	Key Performance	A1.1/A1.3/A1.4/A2.1/A2.2/ B1.1/B2.1/B2.2/B3.1/B3.2/ B5.1/B6.3/B7.1/B8.2	Article 57
	ESG Index		Article 57
	Feedback		

Dear Reader:

72 / 73 ____

Thank you very much for reading the 2024 Environmental, Social and Governance Report of China Energy Engineering Corporation Limited. We are looking forward to your valuable comments or suggestions for our continuous improvement the preparation of the ESG report. Please help to complete the following in the feedback form and choose the following ways to feedback to us.

1.You are:

□ Government/regulatory department	□ Partner	□ Peer	□ Shareholder/investor	r \Box Research inst	itute/school
\Box Social organization	□ Customer	□ Comm	unity resident	Employee	🗆 Media
2. Do you think the report completely a	and accurately re	eflect the cu	rrent ESG status of the Co	ompany?	
□ Yes	🗆 General		□ No		
3. Whether the information you concern	ned are reflected	d in the repo	ort or not?		
□ Yes	🗆 General		□ No		
4. Do you thick the report completely c	lisclose the ESG	information	?		
□ Yes	🗆 General		□ No		
5. Do you satisfy the logic structure an	d layout design	of the repor	t?		
□ Yes	🗆 General		□ No		
6. What shortcomings do you think exis	st in this report?				

7. What content in this report do you wish to disclose regularly?

8. Do you have any opinions or advice on our ESG work and report afterwards?

Address: Building 1, No. 26A West Dawang Road, Chaoyang District, Beijing, the PRC Postcode: 100022 Telephone: +86(10)5909 9846 Email: csr@ceec.net.cn



Address: Building 1, No. 26A West Dawang Road, Chaoyang District, Beijing, the PRC Postcode: 100022 Telephone: +86(10)5909 9846 Email: csr@ceec.net.cn