

中国能源建设股份有限公司
CHINA ENERGY ENGINEERING CORPORATION LIMITED

Environmental, Social & Governance Report 2023

(A joint stock company incorporated in the People's Republic of China with limited liability)

Stock Code: 3996 A Share: 601868

ABOUT THIS REPORT

REPORTING SCOPE

This report is applicable to China Energy Engineering Corporation Limited and its subsidiaries (hereinafter referred to as the “Company” or “we”, “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 2023 to 31 December 2023 (the “Reporting Period”), and part of this report may be beyond the period to ensure completeness of the report.

REPORTING PREPARATION PRINCIPLES

This report is prepared pursuant to the Guiding Opinions on the Fulfillment of Social Responsibilities by Central Enterprises of the SASAC of the State Council, the Guidelines on the Preparation of Social Responsibility Report of Listed Companies of the Shanghai Stock Exchange and the Environmental, Social and Governance Reporting Guide in Appendix 27 to the Rules of Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited and with reference to the Sustainability Standards issued by the Global Reporting Initiative (GRI Standards), the International Organization for Standardization (ISO)’s Guidance on Social Responsibility (ISO26000:2010), the Guidelines for Social Responsibility Report of Chinese Enterprises of Chinese Academy of Social Sciences (CASS-CSR4.0), and the Reference Indicator System for ESG Report of Listed Companies Controlled by Central Enterprises. This report is prepared in accordance with the principles of materiality, quantitative, balance, and consistency.

Materiality: The materiality of ESG matters of the Company shall be determined by the board of directors, and communication with stakeholders and the process of identifying substantive issues and matrix of substantive issues are disclosed in this report.

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 presents the Company’s performance during the Reporting Period in an unbiased manner so as not to improperly influence the decision or judgment of the readers of the report.

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

DATA DESCRIPTION

The financial data is abstracted from the annual report of 2023 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.

Unless otherwise defined, capitalized terms used herein have the same meanings as those defined in the 2023 annual report of the Company.

ABOUT THIS REPORT

PLACE OF MAINTENANCE OF THIS REPORT

This 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>).

CONTACT DETAILS

Address: Building 1, No. 26A West Dawang Road,
Chaoyang District, Beijing, the PRC

Postcode: 100022

Telephone: +86(10)5909 8818

Email: zgnj3996@ceec.net.cn

CONTENTS

About This Report	1
Chairman's Statement	4
1. <i>Knowing China Energy</i>	6
2. <i>Systematic Governance to Build an Ecology of Responsibility</i>	7
2.1 <i>ESG Governance</i>	7
2.2 <i>Communication with Stakeholders</i>	10
2.3 <i>Identifying Material Issues</i>	11
2.4 <i>Guidance on Party Building</i>	12
2.5 <i>Internal Control</i>	15
2.6 <i>Anti-corruption and Integrity</i>	17
3. <i>Lucid Waters and Lush Mountains to Promote Low-carbon Development</i>	19
3.1 <i>Laying out Climate Strategy</i>	19
3.2 <i>Promoting Industrial Transformation</i>	22
3.3 <i>Enhancing Energy Conservation and Emission Reduction</i>	26
3.4 <i>Protecting Natural Ecology</i>	37
4. <i>Innovation to Lead for Brand Excellence</i>	39
4.1 <i>Building Quality Construction</i>	39
4.2 <i>Strictly Controlling Engineering Quality</i>	41
4.3 <i>Promoting Technological Innovation</i>	44
4.4 <i>Strengthening Supply Management</i>	47
4.5 <i>Carrying Out International Cooperation</i>	48
4.6 <i>Protecting Customer Rights</i>	52
5. <i>Enhancement of People's Well-being through a People-oriented Approach</i>	53
5.1 <i>Building a Diverse Team</i>	53
5.2 <i>Focusing on Talent Development</i>	55
5.3 <i>Caring for Employees' Health</i>	57
5.4 <i>Supporting Rural Revitalization</i>	62
5.5 <i>Building Happy Communities</i>	66
5.6 <i>Deepening Overseas Responsibilities</i>	69
Prospects	71
Appendix	72

CHAIRMAN'S STATEMENT

In 2023, the Company insisted on being guided by the thought of Socialism with Chinese Characteristics in the New Era of Xi Jinping, studied and deeply carried out the spirit of the 20th National Congress of the CPC, implemented the new development concept in a complete, accurate and comprehensive manner, vigorously practiced the strategies of the "Certain Opinions", "1466" and "three new" Energy Engineering, accelerated the construction of a world-class enterprise, and continued to enhance the characters of green development and high-quality development. The Company as a whole has shown a favorable trend of accelerated gathering of new energies, continuous amplification of new advantages, continuous burst of new vitality, and rapid enhancement of the influence of new brands.

Courageously undertaking the mission and accelerating the transformation and upgrading. We are committed to being the main force to fulfill the national strategy, accelerated the promotion of "four major transformations" including the innovation-driven transformation, green and low-carbon transformation, digital intelligence transformation, and shared integration transformation, built and commissioned a number of large-scale integrated energy bases, transformed and upgraded a number of guaranteed coal-power projects, researched and developed a number of new energy technologies and new equipment. We achieved rapid expansion in our comprehensive energy storage and integrated hydrogen energy industries, realized a breakthrough in digital transformation, and a series of key projects under our "seven networks integration" project have become new industry models, driving the Company's business indicators to new heights and accelerating the cultivation of new quality productivity.

Innovation drives and stimulates surging momentum. We have launched high-quality reform and deepening and upgrading actions, accelerated the implementation of actions to build world-class enterprises and to benchmark the value creation of world-class enterprises, and promoted the integration and application of a variety of incentive mechanisms, which have given enterprises new vitality. We have paid close attention to scientific and technological innovation, achieved a major breakthrough in the creation of national scientific and technological innovation platform, made significant progress in key scientific and technological offensive tasks, listed a number of technological equipment on the list of the national first (set) list, made solid strides in the creation of a source of original technology, and achieved a threefold growth in innovation, fully stimulating the innovation drive of the enterprise.

CHAIRMAN'S STATEMENT

Upgrade brand value with high-end guidance. We give full play to the guiding role of headquarters, made connections with our domestic and foreign customers and partners in an all-round manner, actively participated in the Bo'ao Forum, Import Expo and other major events, comprehensively and systematically demonstrated the high quality of the "three new" Energy Engineering. The Company jumped to 224th place in the Global Brand Value 500, and a number of major demonstration projects, integration projects and integration projects constructed by the Company with the characteristics of being the first in the industry, the largest in the country and leading in the world were successfully put into production and operation, and the Company was awarded the National Quality Engineering Award and provincial and ministerial quality awards at a record high level, significantly enhancing the influence of the brand of China Energy.

Putting the people first, demonstrating the commitment of a central enterprise. We insisted that talent is the first resource, systematically launched the construction of the "three forces" of the leadership team's executive force, cooperation force and fighting force, vigorously cultivated "two teams" of entrepreneurs and innovators, and deepened the implementation of medium- and long-term incentives to continue to stimulate the enthusiasm and growth potential of our employees. We have done a good job in rural revitalization and common prosperity, and we have won wide acclaim in the community by being at the forefront of the fight against floods in the Beijing-Tianjin-Hebei region and natural disasters such as the Gansu earthquake. Adhering to the concept of a common destiny of mankind, we have continued to encourage overseas organizations to fulfill their responsibilities, improved the livelihood of local people and promoted Chinese culture.

We will continue to build our dreams with one heart and one mind. Under the scientific guidance of Xi Jinping's thought of socialism with Chinese characteristics in the new era, we will stand on the tide of the times and take on the important task of development, we will focus on "innovation, greenness, digital intelligence and integration", and focus on high-quality development and value creation, we will work hard and pursue excellence, and comprehensively build a world-class "three new" Energy Engineering. We will create greater value for our customers, shareholders, employees and society!

KNOWING CHINA ENERGY

Founded on 19 December 2014, China Energy Engineering Corporation Limited is a company with limited liability established and cosponsored by China Energy Engineering Group Co., Ltd. (a central enterprise supervised and administered by the SASAC), and its wholly-owned subsidiary, Electric Power Planning Engineering Institute Co., Ltd. The Company issued H shares under the initial public offering on 10 December 2015 and got listed on the main board of the Stock Exchange (Stock Code: 3996.HK), and got listed on the main board of the Shanghai Stock Exchange (stock code: 601868.SH) on 28 September 2021.

The Company is an ultra large comprehensive group company that provides systematic, integrated, full life cycle and package of development solutions and services to industries such as energy and power, infrastructure in the PRC as well as over the world. Its businesses cover traditional energy, new energy and integrated intelligent energy, water conservancy and water affairs, eco-environmental protection, comprehensive transportation, municipal administration, housing construction, real estate (new urbanization), building materials (cement, sand and stone aggregate, etc.), civil explosive, equipment manufacturing, capital (finance) and other businesses, with a complete industrial chain integrating planning and consulting, evaluations and review, survey and design, construction and contracting and management, operational maintenance and investment operation, technical services, equipment manufacturing, and building materials. The Company is one of the Global 500 companies, and ranks high among ENR Top 150 Global Engineering Design Firms, Top 225 International Design Firms, Top 250 Global Contractors and Top 250 International Contractors. The Company's businesses extending to over 140 countries and regions outside China.

As the leader and main force in the fields of energy power and infrastructure construction, the Company successively undertook a series of major projects related to the national economy and people's livelihood, such as the Three Gorges Project, South-to-North Water Diversion, West-East Gas Transmission, West-East Power Transmission and Third-Generation Nuclear Power, built a number of domestic backbone projects with global recognition such as projects of Wudongde, Baihetan, Hualong No.1, created notable results in the fields such as large-scale wind-photovoltaic-storage-transportation project, UHV multi-terminal hybrid direct current project, high altitude transmission and transformation project, 1,240 MW high-efficiency ultra-supercritical coal-fired power project and 300 MW compressed air storage project, and constructed a number of China-made dams, China-made power, China-made networks, China-made towns, China-made highways and China-made bridges with energy engineering characteristics, presenting the advance and mature Chinese technology, Chinese equipment, Chinese quality, Chinese management and Chinese operation service to the world constantly.

The Company always insists on "empowering beautiful China and building a better world" as the starting and standing point, follows the concept of social responsibility of "independent innovation, contributing to the society, scientific development and building harmony society", upholds the organizational mission of "Bringing the Energy to the World" and the strategic vision of "industry-leading and world-class". The Company has accelerated the in-depth integration of the "seven networks" of energy network, transportation network, digital network, water network, ecological network, industrial network, and cultural network, and has built a "three new" Energy Engineering platform of new energy, new infrastructure, and new industries, accelerated the construction of a globally competitive world-class enterprise, and is committed to providing first-class quality project, products and services for China and the world.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY



2.1 ESG GOVERNANCE

• Board Statement

The Board of Directors is the highest decision-making 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 2023. This report is prepared pursuant to the Guiding Opinions on the Fulfillment of Social Responsibilities by Central Enterprises of the SASAC of the State Council, the Guidelines on the Preparation of Social Responsibility Report of Listed Companies of the Shanghai Stock Exchange and the Environmental, Social and Governance Reporting Guide in Appendix 27 to the Rules of Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited and with reference to the Sustainability Standards issued by the Global Reporting Initiative (GRI Standards), the International Organization for Standardization (ISO)’s Guidance on Social Responsibility (ISO26000:2010), the Guidelines for Social Responsibility Report of Chinese Enterprises of Chinese Academy of Social Sciences (CASS-CSR4.0), and the Reference Indicator System for ESG Report of Listed Companies Controlled by Central Enterprises. This report discloses in detail the progress and effectiveness of the Company’s ESG efforts in 2023. This report is issued after consideration and approval by the Board of Directors.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

- **ESG Management Mechanism**

The Company strictly complies with the Guiding Opinions on Better Fulfillment of Social Responsibilities by State-owned Enterprises (《關於國有企業更好履行社會責任的指導意見》) of the SASAC of the State Council, and attaches high importance to ESG governance works. With reference to the United Nations 2030 Sustainability Goals and the GRI Sustainability Reporting Standards issued by the Global Sustainability Standards Board, and combining the key concerns of international ESG rating agencies, we have formulated a mature ESG performance reporting process, continuously improved the ESG indicator system, and optimized the quality of ESG disclosure year by year in light of the internal and external environments, so as to enhance the specificity and effectiveness of our work and continue to improve the professionalization of ESG management.

The Board of Directors of the Company 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 Committee under the Board of Directors, with the Chairman of the Board of Directors as the head of the Committee. The 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 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.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY



ESG Management Organization System of the Company

The Company revised the Management Measures of Social Responsibilities in 2023, to optimize and improve the responsibilities and obligations of part of institutions, detail the preparation, approval and disclosure procedures of the ESG report. Under the leadership of the Social Responsibility Committee, the office will join hands with various departments of the headquarters and the business division to discuss the operations and ESG performance of the Company, analyze ESG substantive issues, and evaluate the relevant performance and impact of material issues. We have set up a long-term Plan-Do-Check-Act (PDCA) social responsibility management mechanism.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

2.2 COMMUNICATION WITH STAKEHOLDERS

The Company attaches great importance to communication with stakeholders. The Company has established a diversified, stable and effective communication channel and feedback mechanism to keep abreast of and respond positively the appeals of the stakeholders, improve the Company's ESG performance in a targeted manner, and reduce social risks in corporate operations.

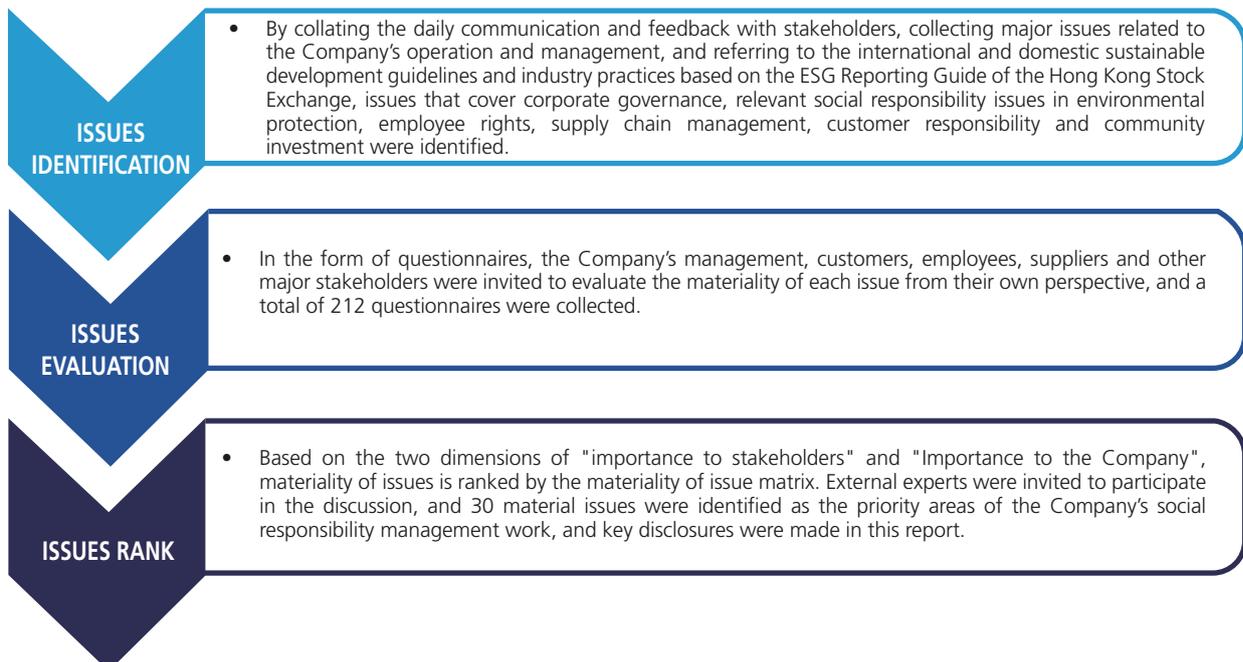
Stakeholders	Communication mechanism	Stakeholder's requisition	The Company's response
Government	<ul style="list-style-type: none"> Policy guidance Report at the special meeting 	<ul style="list-style-type: none"> Response to national strategies Legal and compliance operation Pay taxes according to Laws Achieve carbon peaking and carbon neutrality 	<ul style="list-style-type: none"> Service national strategies Uphold steady operation Compliance with laws and regulations Green and low carbon development
Shareholders	<ul style="list-style-type: none"> General meeting Board Meeting Daily communication 	<ul style="list-style-type: none"> Continuous creating values and return Regulate corporate governance Transparent information disclosure 	<ul style="list-style-type: none"> Improve operating results Enhance corporate governance Timely release of information
Customers	<ul style="list-style-type: none"> Customers service hotline Satisfaction investigation Visiting Company's website 	<ul style="list-style-type: none"> Promote technology innovation Guarantee project quality Provide satisfactory service 	<ul style="list-style-type: none"> Improve innovation mechanism Enhance quality management Improve service system
Partners	<ul style="list-style-type: none"> Regular communication Business communication and cooperation Participate in industry association 	<ul style="list-style-type: none"> Mutual benefit Common development 	<ul style="list-style-type: none"> Carry out strategic cooperation Participate in the formulation of industry standards
Employees	<ul style="list-style-type: none"> Employees representative meeting Daily communication Corporate culture activities 	<ul style="list-style-type: none"> Reasonable remuneration and welfare Healthy and safe working environment Occupational development and training Care for employees 	<ul style="list-style-type: none"> Protect legitimate rights and interests Ensure safety production Improve training system Organize employee activities

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

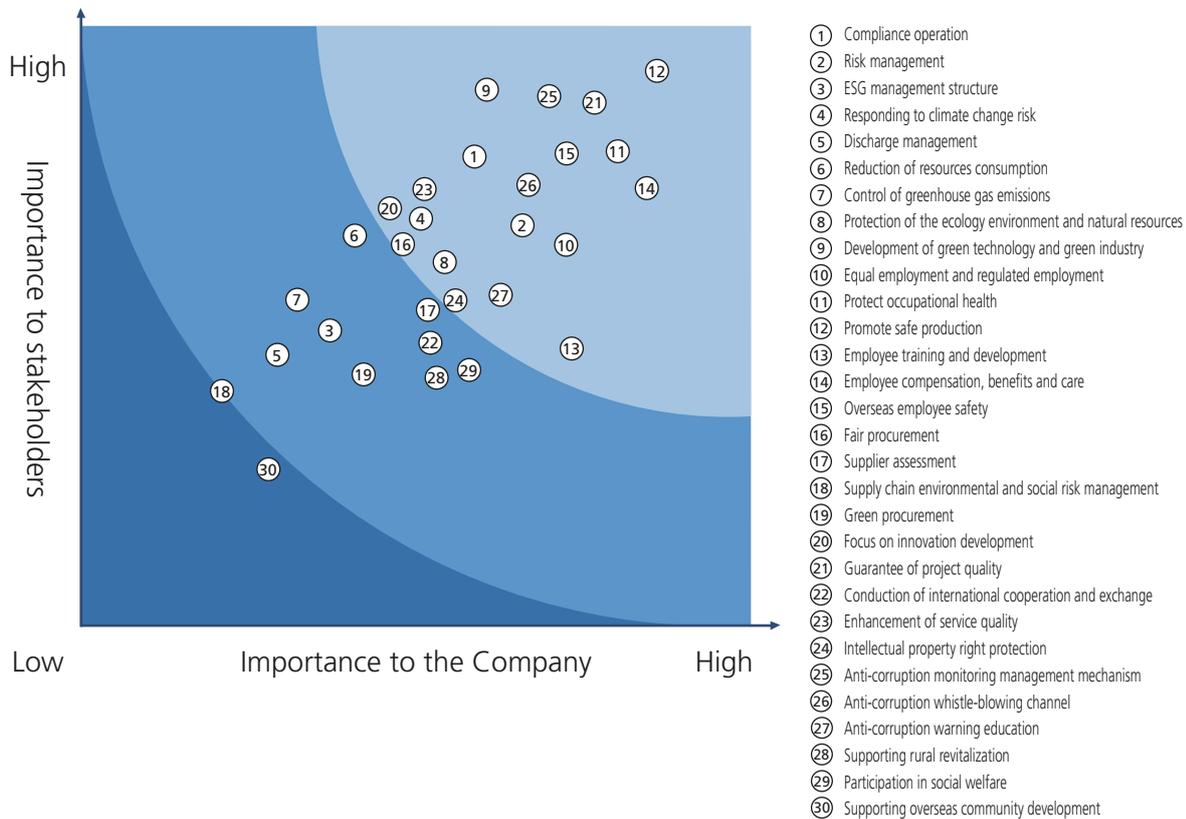
Stakeholders	Communication mechanism	Stakeholder's requisition	The Company's response
Community	<ul style="list-style-type: none"> Learn of community Formulate action plan 	<ul style="list-style-type: none"> Participate in community construction Care for vulnerable groups 	<ul style="list-style-type: none"> Promote rural revitalization Promote community development Support Xinjiang and Tibet Carry out public welfare activities
Environment	<ul style="list-style-type: none"> Insight into domestic and international trends Master advance technology Improve environmental awareness 	<ul style="list-style-type: none"> Compliance with environmental protection laws and regulations Provide environmental business Energy saving, emission reduction and carbon reduction Protect ecological environment 	<ul style="list-style-type: none"> Reduce pollutants discharge Development of environmental protection industry Improve energy efficiency Construct green projects

2.3 IDENTIFYING MATERIAL ISSUES

The Company rigorously treated the demands of all stakeholders, integrated the demands of all parties into the Company's development strategies, actively assumed social responsibilities, and continued to improve the Company's sustainable development capabilities. In 2023, the Company continued to identify, evaluate and screen sustainable issues that are important to the Company and stakeholders by collecting and recording stakeholders' feedback through questionnaires, so as to accurately and completely disclose the information of operation and management as possible as practicable.



SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY



2.4 GUIDANCE ON PARTY BUILDING

The Company thoroughly implemented the spirit of the 20th National Congress of the Communist Party of China, studied and implemented the education themed Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era in a high-quality manner, adhered to plan, deploy and advance the corporate development in the height of the Party's and the national strategies. The Company successfully convened the second congress of Party representatives of the Company, systematically upgraded the strategy map, vigorously consolidated the Company's "centering" on high-quality development. In 2023, the Party construction, the discipline inspection commission and the inspection work were awarded Level-A by the SASAC of the State Council.

- **Continuous strengthening in political construction.** During the year, the Company further implement the "First Topic" system, the party committee of the Company focused on study of a total of 103 clauses of the "First Topic" in 15 times; deepened the topic education, systematically designed "seven courses of Energy Engineering", meticulously carried out "four characteristic study", extensively conducted "six profound inspection", made full use of the experience of "hundreds of discipline inspection cadres to projects (百名紀檢幹部下項目蹲點)" for investigation and research, constantly armed with the party's innovative theory, guided practice and promote the work.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

- **Outstanding achievements in team construction.** The Company systematically carried out the construction of “three forces” i.e. the executive force, joint force and combat effectiveness of the leadership, deeply implemented the “talent energy engineering” project, vigorously cultivated “two teams” of entrepreneurs and innovators, and continued to build a learning enterprise.
- **Deepening and consolidating of the Party building integration.** The Company further promoted the “six ones” action vertically, grasped the “four characteristic areas of party building”. The Company accelerated the construction of an excellent cultural system with “five cultures”, i.e. forestallment, hard work, innovation, coordination and compliance as the core, and the new media index of the Company ranked firmly in the “first echelon” of central enterprises. The Company deeply carried out the “healthy energy engineering”, staff care and humanistic care actions, promoted the organization care to the grass-roots, front line and project sites. The Company further promoted the “three major projects” of the model workers project, the Youth Marxist project and the youth spiritual quality promotion project, and built a platform for innovation and efficiency for the majority of employee and youth league members to display their talents.
- **Deepening of strict Party self-governance.** The Company cooperated with the inspection of the SASAC of the State Council, efficiently promoted the rectification of the inspection feedback problems, systematically conducted the specific treatment for violence of the spirit of the eight-point frugality code issued by the CPC Central Committee, continuously improved the “Major Supervision” system, comprehensively implemented the project inspector system, seriously supervised the discipline enforcement and accountability, maintained the high-pressure situation of anti-corruption and continuously consolidated the political integrity ecology.

In 2023, we continued to play a leading role in Party building:

- ✓ focused on strengthening the Party’s grassroots organization system, and solidly carried out the “Special Action for Quality and Efficiency Enhancement of Party Building at Grassroot Level”.
- ✓ Completed the online operation of the “digital intelligence Party building” system to improve the information level of the Party building.
- ✓ Set up about 5,000 party member demonstration posts, and 683 party member commandos, fully demonstrating the vanguard qualities of party members.
- ✓ Comprehensively deepened the “empowerment of culture to high-quality development”, prepared the “Management Regulations of Excellent Cultural System Construction of the Company”.
- ✓ Issued the Notice on Systematic Humanistic Care and Psychological Counseling Training, and implemented the “Ten-Hundred-Thousand” project.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

Case: The Company convened the second Party members' meeting

In January 2023, the second Party members' meeting of China Energy was convened in Beijing, at which, Song Hailiang, the secretary to the Party committee, chairman of the Board of Directors of the Company, made the work report of the Party committee titled "Uphold the Great Banner and Forge Ahead on a Great Journey, Vigorously Practice the "1466" Strategy, Systematically Build the 'three-new' Energy Engineering, Strive for Achieving High-Quality Development and Building a World-Class Enterprise", comprehensive outlined the grand blueprint and practical path for China Energy to comprehensive build a world-class enterprise.



Case: Numerous results were listed as the "Excellent Brand Construction Cases of Party Building of Central Enterprises"

Three results, i.e. the "Empowerment" of Project Party Building Injects Surging Power into the Project Construction – China Energy Focuses on Building a Party Building Brand with "three-consolidation, three-enhancement and four-in place (三抓三强四到位)", the "Four-heart" Brand of a Gezhouba Company Activates the Cohesion and Combat Effectiveness of the Grassroot Party Organization, and the "Runner (追风逐日)" Party Building Brand of CPECC Supports for Promotion of High-quality Performance, were listed as the "Excellent Brand Construction Cases of Party Building of Central Enterprises" in 2023.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

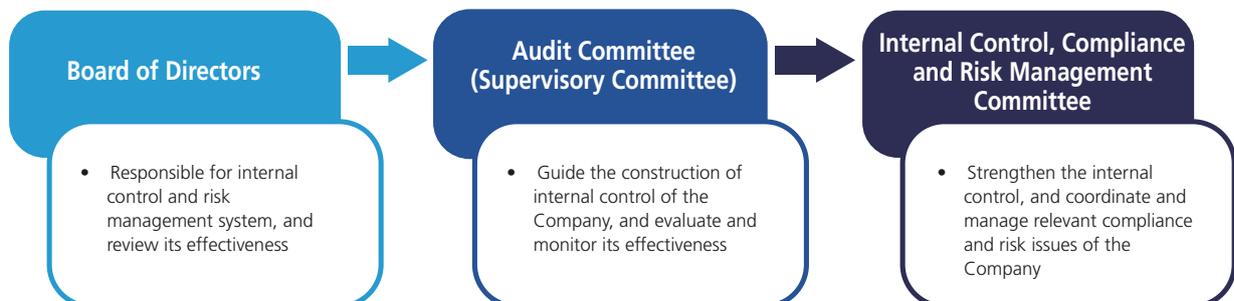
Case: Organization the storing-telling session for strivers on “Thought Education, Party Spirit Strengthening, Practice Focusing and New Achievement Building (學思想、強黨性、重實踐、建新功)”

In May 2023, China Energy held a story-telling session for strivers on “Thought Education, Party Spirit Strengthening, Practice Focusing and New Achievement Building (學思想、強黨性、重實踐、建新功)”, at which a story of staff’s commitment of China Energy to serving the country and struggle was told, called the cadres and staff for shouldering the mission of the era, taking the lead to vigorously and bravely move forward.



2.5 INTERNAL CONTROL

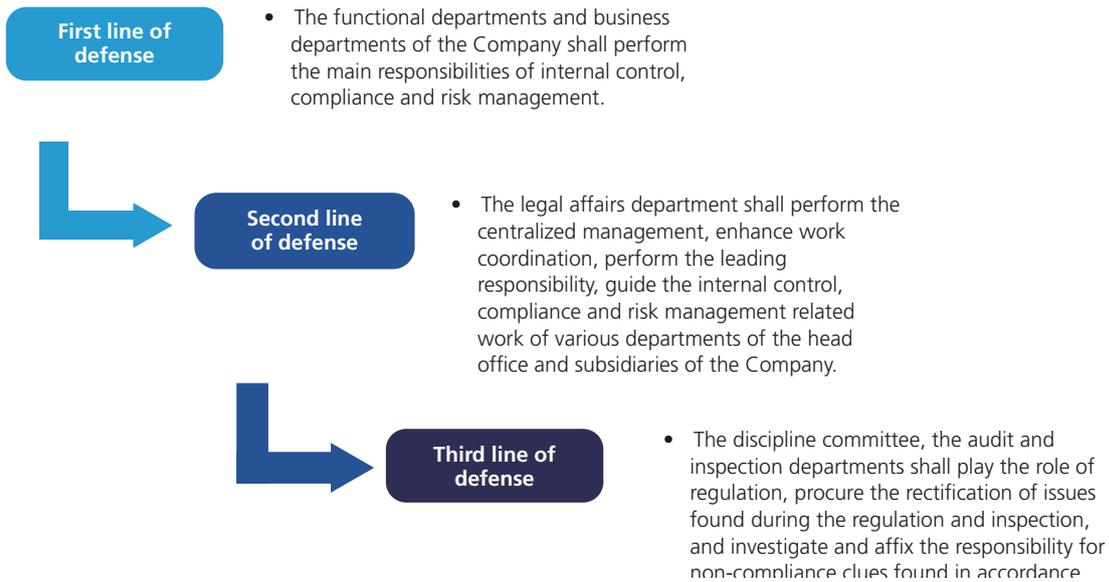
The Company adhered to the establishment of an internal control system with clear responsibilities, definite division and efficient operation, and continued to optimize corporate governance and improve the list of procedures of all decision-making bodies according to the Basic Standards of Internal Control of the Company and other relevant regulatory requirements. The Company established and improved the reporting mechanism of authorized matters of the Board of Directors and the operation mechanism of special committees, realized that the board of directors should be formed with a majority of which are external directors within the subsidiaries, to comprehensively improve the efficiency of corporate governance. Centering on the “streamlined, efficient, convenient, process and sheet-based” goal, the Company systematically carried out the optimization and restructuring of system and process, further improved the Company’s internal control system, and effectively promoted the scientific, standardized and efficient management.



SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

The Board of Directors of the Company shall be responsible for the internal control and risk management system and review its effectiveness. 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 system and related procedures. The Audit Committee (Supervisory Committee) under the Board of Directors shall guide the construction of internal control and the accountability system for non-compliance operation and investment, discuss the risk management and internal monitoring system with the management, and evaluate the effectiveness of internal control. 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 Company has established the "three lines of defense" working mechanism of internal control, compliance and risk management, and clarified the work requirements of "internal control, compliance and risk management is 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)".



The Company carries out identification and analysis of major risks every year, evaluates major risks from the probability of occurrence and impact degree, formulates and strictly implements countermeasures to major risks, so as to strictly prevent the occurrence of major risk events. In addition, the Company also carries out internal control self-evaluation and supervision evaluation, focus on the key control links and core business processes affecting the high-quality development of the Company, and evaluate the results of internal control with risk-oriented and compliance as the basis.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

2.6 ANTI-CORRUPTION AND INTEGRITY

In strict compliance with laws and regulations such as the Criminal Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China, Several Provisions on the Clean Practice of Leaders of State-owned Enterprises, 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, formulated 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 (《處理檢舉控告工作實施辦法》) and the Implementation Methods for Supervision and Discipline Enforcement (《監督執紀工作實施辦法》) and other management measures. Various anti-corruption work have been carried out in strict accordance with these rules, so as to comprehensively promote "corruption discourage, corruption inability and corruption unwillingness" and strictly prevented commercial bribery and commercial corruption.

During the Reporting Period, the main measures taken by the Company to strengthen the anti-corruption include but are not limited to:

- **Promoted the normalization of warning education.** The Company continued to strengthen the warning education role of typical cases of violations of laws and discipline, analyze and report typical cases, closely follow the warning and reminder, learn lessons from the cases and other comprehensive measures, so as to "investigate and punish one, analyze one, warn a group and education more". The Company held the warning education conference, and reported 18 typical cases of violations of discipline and law.
- **Continuously unblocked the petition and reporting channels.** The Company further unblocked the reporting channels such as letters, visits, phone calls and the Internet, and 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. At the same time, the Company accepted the complaints, strengthened the analysis, research and judgment of the petition and reporting in a prompt manner, and constantly improved the quality and efficiency of the petition and reporting work;
- **Maintained the high corruption punishment.** The Company focused on the corruption problems in the field of engineering construction, carefully checked the clues of corruption and style problems around the masses, and resolutely rectified the corruption and style problems around the masses; and resolutely upheld the strict tone, and severely crack down on the behaviors that damage the interests of the Company. The Company seriously investigated and punished violations of discipline and law such as public interests, benefits transfer, rent setting and seeking, and connected transactions.
- **Promoted the transformation and improvement of supervision efficiency.** The Company further improved the "great supervision" system of the Company, consolidated and expanded the work results of "great supervision". The Company held the "great supervision" work promotion meeting, continued to carry out the key special work. The Company included economic responsibility audit in the key work points of "Major Supervision" in 2023, and promoted the construction of the "three coordination and three tracking" work pattern of production, audit and discipline inspection.

SYSTEMATIC GOVERNANCE TO BUILD AN ECOLOGY OF RESPONSIBILITY

- **Persevered in correcting the undesirable work styles (i.e. the formalism, bureaucracy, hedonism and extravagance) and forming a new one.** The Company accurately grasped the industrial, phased characteristics and new situation and new trends of the work styles (i.e. the formalism, bureaucracy, hedonism and extravagance) of the Company, strengthened the guidance and supervision. The Company adhered to and improved the rectification of work style, notification and exposure of typical cases and other work mechanisms, continued to intensify the supervision and inspection by carrying out special inspection, public and private inspection, random check, to identify and rectify the issues in time.

Implementation Particulars of Anti-corruption Publicity and Education of the Company:

Item of indicator	Unit	2023	2022
Number of trainings on anti-corruption publicity and education	/	1,033	1,045
Total number of participants in training on anti-corruption publicity and education	Personnel	131,015	152,742

Item of indicator	Unit	2023
No. of cases involved in corruption and bribery litigation	Case	1
No. of personnel subject to punishment due to corruption and bribery	Personnel	2
No. of training on discipline inspection and supervision business	/	481
No. of personnel participated in training on discipline inspection and supervision business	Personnel	3,939
No. of hours of training on discipline inspection and supervision business in total	Hour	1,256
No. of personnel/time of Directors of the Company who participated in the training on anti-corruption publicity and education	Personnel	34
No. of personnel/time of employees of the Company who participated in the training on anti-corruption publicity and education	Personnel	131,015

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT



3.1 LAYING OUT CLIMATE STRATEGY

China Energy attaches great importance to addressing climate change, regards it as a major mission to promote the construction of ecological civilization and achieve high-quality development, continuously strengthens its responsibility for building a community with shared future for mankind, and contributes to global climate governance with China Energy's solutions and Chinese wisdom.

- **Climate Governance**

The Company attaches great importance to the impact of climate change on the development of the enterprise and society. The Company has incorporated addressing climate change into the Company's daily operation and management, and clarified the responsibilities of the Board and management:

Board	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.
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.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

• Climate Strategy

As a national team in the field of energy, power and infrastructure construction in China, the Company insists on implementing the “30•60” strategy, and accurately grasps the national target requirements of accelerating energy transformation. The Company took the lead in systematically promoting the “1253” principle of “carbon peaking and carbon neutrality”. In other words, the Company shall adhere to the national strategic goal of “carbon peaking and carbon neutrality” as the “one leading”, focus on the “two keys” of building a new energy system and a new power system, follow 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 handle the “dialectical relationship among three parties” of clean and low-carbon fossil energy based on coal, intensive renewable energy based on wind and photovoltaic and systematic efficiency improvement and energy conservation based on major users, fully serving the transition of China’s energy structure to green and low-carbon. The Company released the Action Plan for Implementing the “30-60” Strategic Goal (White Paper) (《踐行“30-60”戰略目標行動方案(白皮書)》) of China Energy which establishes the development direction for green industry and actively promotes the implementation of various low-carbon development initiatives based on “carbon peaking and carbon neutrality” and “two supports” of comprehensive energy storage and integrated hydrogen energy.

In 2023, the breakthroughs achieved by the Company included but are not limited to:

- served the government, industry and enterprises under the leadership of high-end planning consulting.
- gave full play to the advantages of the entire industrial chain, and vigorously developed low-carbon energy and power business.
- actively implemented the concept of green development in the field of non-electric infrastructure investment and construction.
- adhered to green production and operation, and vigorously promoted industrial energy conservation and emission reduction.
- vigorously developed ecological and environmental protection business, and actively participated in national greening actions.
- implemented the concept of energy conservation and environmental protection, and vigorously promoted green construction.
- intensified technological innovation efforts.
- accelerated digital transformation.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

- Objective**

During the 14th Five-Year Plan period, we aim to reduce total annual carbon dioxide emissions by 1.38%, and decrease carbon dioxide emissions per RMB10,000 annual output value (revenue) by 3.9%, with 2021 as the base year.

- Risk Management**

Category of risk	Type of risk	Description of risk	Time range	Response to Risk
Transition risk	Policy risk	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	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
	Cost risk	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	Short and medium term	Implement innovation-driven development strategy, develop technical cooperation, and reduce R&D costs; and develop integrated energy utilization projects
	Market risk	Low-emission products or services are more popular in the market; stakeholders pay more attention to the degree of greenness of products or services	Medium and long term	Actively lay out new energy field and adapt to market development trend
	Reputation risk	Capital market questioning arising from environmental regulatory penalties; being unable to respond to the relevant demands of the enterprise to address climate change	Long term	Strengthen investor communication and investor relations management, and enhance information disclosure
Physical risk	Acute risk	Extreme weather events affecting normal operation order; equipment damage during operation; threats to employee life and safety	Short and medium term	Improve emergency plans, standardize emergency measures Damage to equipment for emergencies, and purchase relevant insurance
	Chronic Risk	Persistent high temperatures and sea level rise; water scarcity	Long term	Improve flood control management of coastal enterprises; incorporate water resource management into the Company's resource management system; and improve water resource utilization efficiency

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

3.2 PROMOTING INDUSTRIAL TRANSFORMATION

In compliance with relevant outlines such as the Outline of the 14 Five-Year Plan for the National Economic and Social Development and the Long-Range Objectives Through the Year 2035 of the People's Republic of China (《中華人民共和國國民經濟和社會發展第十四個五年規劃和2035年遠景目標綱要》), the Opinions of the CPC Central Committee and the State Council on Completely, Accurately and Comprehensively Implementing the New Development Concept and Doing a Good Job in Peak Carbon Dioxide Emissions (《中共中央國務院關於完整準確全面貫徹新發展理念做好「碳達峰·碳中和」工作的意見》), the 14th Five-Year Plan for Layout Optimisation and Restructuring of the State-owned Capital in the National State-owned Assets Management System (《「十四五」全國國資系統國有資本佈局優化和結構調整規劃》) and the Outline of the 14th Five-Year Plan for the Development of Central Enterprises (《「十四五」中央企業發展規劃綱要》), the Company insisted on building new energy, new infrastructure and new industries as the key supporting point in the overall strategic system, and accelerated the “four transformations”, i.e. innovation-driven transformation, green and low carbon transformation, digital intelligence transformation, sharing and integration transformation, so as to promote industrial upgrading and lead industrial development.

- **New Energy**

Focusing on the construction of new energy system, the Company put forward system solutions to promote the green and low-carbon transformation of energy based on the “30•60” system solutions “one center” and the “two supports” of comprehensive energy storage and integrated hydrogen energy and relying on the advantages of integration of all factors in the whole field. The Company innovatively applied the development models of “seven integrations”, i.e. source-network-load-storage, multi-energy complementarity, investment, construction and operation, transportation and energy integration, urban comprehensive development, offshore comprehensive energy as well as Eastern Data, Western Computing, and incubated and developed a number of large-scale integrated comprehensive energy bases, “wind-photovoltaic-hydrogen-storage” multi-energy complementary green electricity, pumped storage, green ammonia and green hydrogen and other demonstration projects. The Company firstly developed and implemented 300 MW compressed air energy storage and wind power generation projects above 1,000 meters. The new energy business has rapidly grown into the Company's top development engine.

- **New Infrastructure**

Focusing on upgrading the energy value, the Company took “energy +” and “digital intelligence +” as the media of integration, deeply promoted the integration of “seven networks”, i.e. energy network, transportation network, digital network, water network, ecological network, industrial network and cultural network, continued to deepen the integration of development technologies, models and product innovation in the field of infrastructure, and created “new infrastructure” and “large infrastructure” with characteristics of China Energy. The Company has taken the lead in implementing a number of demonstration projects in the fields of transportation-energy integration, digital-energy integration, construction-energy integration and production-energy integration, thus forming unique advantages and differentiated competitiveness.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

• **New Industry**

The Company focused on cultivating strategic emerging industries, promoted the upgrading of traditional energy and power industries, continuously strengthened “building, strengthening, extending, supplementing and fixing” chains, enhanced industrial resilience, and accelerated the transformation of industrial chains into value chains. The Company derived new types of industries based on “new energy” and “new infrastructure”, and accelerated the cultivation of strategic emerging industries such as new energy storage, hydrogen energy and assembled buildings. The Company has established and strengthened a number of industrial alliances, enhanced industrial control capabilities, and jointly built the “industrial cluster”, “win-win chain” and “energy field” with element sharing, value symbiosis and aggregation and fission.

During the Reporting Period, the breakthroughs achieved by the Company included but are not limited to:

- **Comprehensive deployment of wind and solar new energy.** The Company has developed and implemented a number of million-kilowatt base projects by means of multi-energy complementary, source-network-load-storage and other integrated methods through taking advantage of system strength. The Company has intensified the development of offshore wind power resources, and operated and implemented a number of offshore wind power projects. by means of integration of investment, construction and operation. The Company has also decided to invest in six overseas new energy projects including Uzbekistan, Myanmar and Namibia, etc.
- **Accelerated layout of pumped storage.** The Company signed a total of 57 investment agreements for pumping and storage projects, six of which have been included in the national “14th Five Year Plan”.
- **Breakthrough in new energy storage with full force.** The Company innovated the “Compressed Air Energy Storage Power Station System Solution of China Energy”, connected two key technological routes, namely natural salt caverns and artificial chambers, and promoted the implementation of 300MW compressed air energy storage new technology demonstration projects in Yingcheng and Jiuquan. The Company collaborated with BTR to develop the “280Ah energy storage special battery with high safety and long life”, and steadily promoted the construction of the Zhangjiakou 300MWh gravity energy storage demonstration project.
- **Accelerated implementation of hydrogen energy demonstration.** The Company has invested in the world’s largest green hydrogen-ammonia integration project – Jilin Songyuan project and Lanzhou New Area green electricity hydrogen production project, making a breakthrough in the integration of investment, construction and operation, and focused on tracking and promoting a number of hydrogen energy projects in Gansu, Inner Mongolia, Shijiazhuang and Shandong.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Case: Chongzuo City comprehensive energy base project of “wind-photovoltaic-water-thermal-storage integration”

The project is invested by CPECC of China Energy, including 13 centralized photovoltaic power generation projects and 3 wind power generation projects, which together with the Chongzuo clean coal power project and the pumped storage power station form a comprehensive layout of “wind-photovoltaic-water-thermal-storage”. After the completion of the project, 12.5 billion kWh of green electricity will be added, which will drive the development of industries such as “energy + agriculture” and “energy + ecology”, relieve the power supply pressure in Chongzuo, and transmit remaining power to Baise, Nanning and other surrounding areas. Besides, the project will have the ability to transmit power to ASEAN countries.



Case: The plant system of the world’s first 300 MW compressed air energy storage power station project in Yingcheng, Hubei Province has successfully received power

The project is jointly invested by China Energy Digital Technology Group and State Grid Hubei Comprehensive Energy Service Co., Ltd. (國網湖北綜合能源服務有限公司), and is the first major technical equipment in the national energy field, integrating all-green, non-supplementary combustion, high efficiency and low cost. After the completion of the project, it is expected that the annual power generation will reach 500 million kilowatt hours, and the project will achieve the world-leading single machine power, energy storage scale and conversion efficiency in the field of compressed air energy storage, which is honoured as a “super green power bank”.



LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Case: Jilin Songyuan 800 MW “new energy + green hydrogen ammonia alcohol” integrated project

The project is constructed by China Energy Engineering Group Hydrogen Energy Co., Ltd., with a planned annual production of 110,000 tonnes of green hydrogen and 600,000 tonnes of green ammonia/alcohol. The project is equipped with an electrolytic cell equipment production line, a comprehensive energy station and a hydrogen energy research institute, basically covering the entire industrial chain. Upon completion, the project will further promote the large-scale development of hydrogen production from renewable energy and green hydrogen-based chemistry, thereby facilitating the low-carbon transformation of the industry.



Case: Gansu Qingyang “Eastern Data, Western Computing” Source-Network-Load-Storage Integrated Smart Zero Carbon Big Data Industrial Park

The project is EPC-contracted by China Energy Guangdong Institute, which adopts various cutting-edge green and low-carbon technologies, as well as information technologies such as the Internet of Things, cloud computing, big data and artificial intelligence to create a computing power support base for the whole country. The project will integrate and interact with multiple elements such as wind-solar-storage and computing power load to create a source-network-load-storage innovative solution, turn the advantages of clean energy resources into industrial development advantages, achieve efficient conversion of watts and bits, form a typical pattern of deep integration of digital energy development, and assist in the innovative development of digital economy in the western region.



LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Case: The Jinxiang section of the Shandong Zaohe Expressway Transportation-Energy Integration Demonstration Project was successfully connected to the grid for power generation

The project is invested and constructed by China Energy Gezhouba Transportation Investment Company, and is an all-road transportation-energy integration project. The project utilizes expressway infrastructure such as service areas and roadside slopes to achieve integration of source, network, load and storage in the integrated development of infrastructure network, transportation service network, energy network and information network, and to provide sustainable green and clean energy for infrastructure and transportation vehicles. After the completion of the project, it is expected to save approximately 41,000 tonnes of standard coal and reduce carbon dioxide emissions by approximately 114,000 tonnes annually.



3.3 ENHANCING ENERGY CONSERVATION AND EMISSION REDUCTION

• 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, the Law of the People's Republic of China on Prevention and Control of Soil Pollution, the Law of the People's Republic of China on Prevention and Control of Solid Waste Pollution, the Regulations on the Management of the Environmental Protection of Construction Projects and other national laws, regulations and policies. The Company has formulated and implemented environmental protection and energy conservation related systems such as 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》) and 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》). In order to strengthen the management of quality, environment and occupational health and safety, and to enhance energy saving, emission reduction and intrinsic safety standards, the Company has compiled the Management Manual for Quality, Environment and Occupational Health and Safety Management System (《品質、環境與職業健康安全管理體系管理手冊》). During the Reporting Period, the Company did not experience any environmental pollution incidents or other environmental violations as required to be reported by the Measures for Supervision and Administration of Central Enterprises on Energy Conservation and Ecological and Environmental Protection (《中央企業節約能源與生態環境保護監督管理辦法》).

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

The Company's six initiatives in environmental management and their performance during the Reporting Period:

- **Strengthened the implementation of responsibility.** The Company signed QHSE responsibility letters for 2023 with 68 directly-affiliated enterprises and their subsidiaries, forming a horizontal and vertical responsibility system for energy saving and environmental protection, and carried out annual QHSE assessment based on the implementation of the responsibility letter of the respective enterprises at the end of 2023.
- **Strengthened system management.** The Company comprehensively promoted the construction of quality, environment and occupational health and safety management system, and established a three-standard system that is in line with the development of the enterprise, deeply integrates with the construction of the QHSE "234" project, and covers the Company's QHSE management activities and the projects it undertakes. By the end of 2023, the annual management objectives of the three-standard system had been fully realized.
- **Strengthened penetration management.** The Company seriously carried out energy saving and environmental protection data management, strengthened data aggregation, statistics, analysis and alerts, and enhanced process supervision and reminders for key enterprises in accordance with the annual QHSE responsibility letters of the affiliated enterprises.
- **Strengthened green construction.** The Company launched "China Energy Cup" quality project evaluation, which includes resource conservation, environmental protection and green construction technology innovation in the construction process as important indicators in the selection criteria; and the Company compiled the Guidelines for Green Construction (《綠色施工導則》), which guides the project department to implement green concepts in construction management so as to maximize resource conservation and minimize negative impacts on the environment.
- **Strengthened technological empowerment.** The Company made researches round the "30•60" system solutions, energy green low-carbon transformation, smart energy and other areas. The Company led and participated in 14 projects under the National Key R&D Program and 2 projects under the Natural Science Foundation of China, which cover a wide range of professional fields such as renewable energy power generation and solar thermal utilization.

The Company's environmental targets are:

- **Waste reduction target:** The Company will continuously promote waste separation and disposal and recycling, and continuously reduce emissions.
- **Energy conservation target:** During the "14th Five-Year Plan" period, the average annual comprehensive energy consumption will be reduced by 2%, and the average annual comprehensive energy consumption per RMB10,000 output value will be reduced by 3%.
- **Water conservation target:** The Company will vigorously implement water conservation and water resource utilization, and increase the wastewater utilization rate year by year.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

• Emissions

The Company's emissions mainly include sulphur dioxide, nitrogen oxides, chemical oxygen demand, ammonia nitrogen, construction waste and other non-hazardous wastes generated from production and operation. During the Reporting Period, the Company strictly complied with relevant laws and regulations and standard files such as the Environmental Protection Law, the Law on Prevention and Control of Air Pollution, the Law on Prevention and Control of Water Pollution, the Energy Conservation Law, the Law on Prevention and Control of Noise Pollution, the Law on Environmental Impact Assessment, the Law on Prevention and Control of Environmental Pollution by Solid Waste, the Regulations on the Environmental Protection and Management of Construction Projects, the Regulations on Administration of Pollution Permission, the Pollution Emission Standards for Urban Sewage Treatment Plants, the Environmental Quality Standards for Surface Water, the Regulations on Administration of Pollution Permission, the Emission Standards for Air Pollutants in the Cement Industry and other relevant laws, regulations and standards. The Company has coordinated the management of whole process and all elements of the development, construction and operation of projects, and conducted an assessment of the environmental impact of project development, ensured the implementation of environmental impact assessment measures for project construction, and implemented scientific management for project operation to effectively reduce energy consumption and pollutant emissions.

The major energy conservation measures taken by the Company during the Reporting Period include but are not limited to:

- **Focused on the technological reform of enterprise processes.** The Company promoted energy-saving and carbon-reducing technological transformation, launched the upgrading and transformation of environmental protection technologies such as HSNCR precision ammonia injection, flue gas composite desulfurization and high-performance film-coated filter bags; the Company strengthened the daily operation management and equipment maintenance and repair, reduced the generation of exhaust gas, wastewater, noise and solid wastes (including hazardous wastes) from the source, and standardized the procedure of control and disposal, so as to minimize the impact on the surrounding environment and sensitive points.
- **Enhanced production environment.** The Company implemented in-depth environmental protection management for the whole production process and all aspects of production, and implemented environmental protection projects such as green mines, centralized dust removal at cement loading pallets, noise management for fans and mills, DTRO leachate treatment, integrated treatment of domestic wastewater and intelligent high-altitude fog piles.

The Company strictly enforced the pollutant emission requirements and minimized the environmental impact. Shimen Company, Zhongxiang Company, Jiayu Company and Yicheng Company, subsidiaries of Gezhouba Cement Company of China Energy, were awarded "Class B Enterprise" for environmental performance in 2023, and Songzi Company, Jiayu Company and Shimen Company, subsidiaries of Gezhouba Cement Company of China Energy, were awarded "National Green Factory" in 2023.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

• Exhaust Management

During the Reporting Period, the Company's major pollutants were emitted in compliance with the standards, the concentration and total amount of emissions met the requirements approved in the emission permits, and the concentrations of the pollutant emission were all far better than the emission requirements for particulate matters, sulphur dioxide and nitrogen oxides as set out in the special emission limit of the national Emission Standards for Air Pollutants in the Cement Industry. Measures taken by the Company include but are not limited to:

- In accordance with the environmental performance grading requirements in the Technical Guidelines for the Formulation of Contingency Emission Reduction Measures for Key Industries in Heavy Pollution Weather (《重污染天氣重點行業應急減排措施制定技術指南》), the Company sealed the material sheds in the factory area and equipped them with automatic doors, which effectively controlled the unorganized emission of dust, further beautified the environment of the factory area, and had a high environmental and social benefit.
- The Company actively explored the use of SCR denitrification transformation technology, coupled with the existing "low-NOx combustion + SNCR denitrification system" to effectively reduce the depth of nitrogen oxide emissions.
- The Company installed flue gas online monitoring system (CEMS system) in the kiln tail exhaust, pipe and timely grasped the emission concentration of major pollutants, and the online monitoring system is networked with the landowner's ecological and environmental authorities to ensure that the monitoring data are accurate, real and effective.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Case: Gezhouba Cement Company realized ultra-low emission by applying SCR denitrification technology

In order to achieve ultra-low emission standards for nitrogen oxides, Laohekou Company, a subsidiary of Gezhouba Cement Company of China Energy, carried out SCR denitrification transformation on the basis of the existing denitrification process. After the kiln flue gas is processed by the SCR reactor, its NO_x emission concentration could reach 50 mg/m³ standard, which meets the ultra-low emission requirements of the cement industry.



• Wastewater Management

The Company ensured that the effluent discharge meets the standard steadily, promoted green and high quality development, and contributed ecological power to the national strategy. Measures taken by the Company during the Reporting Period include but are not limited to:

- Collecting, treating, recycling and utilizing urban and rural wastewater of various types and sources, including domestic, printing and dyeing, and chemical, to abate COD, ammonia nitrogen and other pollutants in the wastewater and reduce the pollution to the environment.
- After treatment by wastewater purification system, the industrial wastewater enters the water recycling system of the plant for reuse, realizing “zero” discharge of production wastewater.
- Strictly implementing the management of “separation of rain and sewage water, separation of clean and sewage water”. The Company installed wastewater treatment equipment and facilities such as grease traps and sedimentation tanks, septic tanks, pre-treatment air flotation systems, pre-treatment Fenton systems and integrated wastewater treatment systems. Wastewater treated by the equipment and facilities is recycled as much as possible for use in production, irrigating greening in the plant area and dust suppression.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Case: Zhoushan Dong'aoshan Mine was awarded "Green Mine"

Zhejiang Zhoushan Dong'aoshan construction stone (tuff) mine is the first tuff construction aggregate green mine invested, constructed and operated by China Energy. It has equipped a comprehensive and efficient wastewater treatment system including interception and drainage ditches, sedimentation tanks and storage tanks, realized 100% recycling of wastewater, and has been awarded as the "Green Mine" in Zhoushan City.



• Waste Management

The Company strictly complied with the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste and other laws and regulations, and adhered to the principles of treatment by minimization, resourcefulness and harmlessness. The Company also actively promoted the resourceful utilization of general solid waste and disposed of hazardous waste in accordance with the law. Measures taken by the Company during the Reporting Period include but are not limited to:

- Actively using raw materials such as liquid oil phase and ammonium nitrate solution to reduce solid waste such as packaging materials at source.
- Utilizing cement kilns to synergistically dispose of wastes with higher calorific value such as domestic garbage derived fuels, sludge, waste tires, agricultural and forestry biomass such as straw, and waste fabrics to achieve waste disposal while reducing the use of fossil energy.
- Utilizing and disposing general wastes through cement production, such as utilizing cement raw materials and cement mixing materials to eliminate general wastes such as fly ash, steel slag and desulfurization gypsum.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Case: Gezhouba Cement Company built cement kiln co-disposal of domestic waste production line

Gezhouba Cement Company of China Energy has completed four cement kiln co-disposal production lines, utilizing the cement firing system to dispose of municipal household waste. The domestic waste disposal capacity of this project reaches 504,000 tonnes per year, which can reduce carbon dioxide emissions by more than 403,000 tonnes per year, save more than 110,000 tonnes of raw materials, and save more than 140 acres of land. By the end of 2023, it treated more than 1.6 million tonnes of domestic waste.



The Company's emissions during the Reporting Period are summarized as follows ^①:

Item of indicator	Unit of indicator	2021	2022	2023
Total greenhouse gas emissions ^②	Tonnes CO ₂ e	6,623,188	6,514,825	8,094,067^③
Direct greenhouse gas emissions	Tonnes CO ₂ e	3,588,119	3,575,567	4,526,525
Indirect greenhouse gas emissions	Tonnes CO ₂ e	3,035,069	2,939,258	3,567,542
Unit greenhouse gas emissions for operating revenue	Tonnes CO ₂ e/RMB0'000	0.21	0.18	0.18
Total sulfur dioxide emissions	Tonnes	8,385	7,178	6,216
Total nitrogen oxides emissions	Tonnes	17,252	15,601	14,192
Chemical Oxygen Demand (COD)	Tonnes	6,966	6,285	5,860
Total ammonia nitrogen emissions	Tonnes	1,061	969	944
Total hazardous wastes ^④	Tonnes	2,263	1,217 ^⑤	1,733
Unit total hazardous wastes generated for operating revenue	Tonnes/RMB ten million	0.73	0.33	0.39
Total non-hazardous wastes ^⑥	Tonnes	47,589,712	27,106,162	35,007,608
Unit total non-hazardous wastes generated for operating revenue	Tonnes/RMB0'000	1.52	0.76	0.79

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Notes:

- 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 Fifth Evaluation Report issued by Intergovernmental Panel on Climate Change (IPCC).
- ③ The increase in total greenhouse gas emissions during the year was mainly due to the expansion of production scale.
- ④ 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.
- ⑤ Revised the hazardous waste generation in the civil explosives segment of hazardous waste for 2022.
- ⑥ Non-hazardous wastes include construction waste and sludge generated by sewage treatment plant under the environmental protection segment. In particular, in 2023, 34,695,111 tonnes of waste slags were generated during construction, and 312,497 tonnes of sludge were generated from sewage treatment plants under the environmental protection sector.

• Use of Energy and Resources

The Company strictly complied with the requirements of the Energy Conservation Law of the People's Republic of China and other laws and regulations, and formulated management systems such as the Environmental Protection and Energy Conservation Management Provisions (《環保節能管理規定》) to vigorously promote the green transformation and development of its existing industries, and to promote the organic integration of ecology and energy.

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Energy management

The major energy conservation measures the Company has taken during the Reporting Period include but are not limited to:

- Utilize existing site resources to invest in decentralized photovoltaic power generation projects, making full use of renewable energy sources such as photovoltaic, lithium storage and low-temperature residual heat, and realizing green micro electricity multi-complementary energy.
- Explore the construction and application of photovoltaic power grids in wastewater treatment systems, and install photovoltaic power generation systems in its wastewater treatment plants, so as to provide low-carbon, green and environmentally friendly clean energy for the operation of wastewater treatment plants.
- Increase the proportion of production capacity of on-site mixed explosives, and implement coal-to-electricity and oil-to-electricity conversion for production lines and ground stations, so as to increase the proportion of clean energy use and effectively reduce the proportion of fossil energy consumption and carbon dioxide emissions.

Case: Explosive Company of China Energy fully promoted the conversion of boilers to electricity

Explosive Company of China Energy vigorously promoted carbon reduction by hiring professional third-party organizations to assess carbon emissions from production and construction, as well as to monitor and account for emissions from five types of typical scenes. At present, Explosive Company has completely eliminated coal-fired boilers, and most of the production units use electric steam generators and electric boilers instead of fuel oil and gas-fired boilers, with outstanding results in carbon reduction.



LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Resource management

The major water conservation measures the Company has taken during the Reporting Period include but are not limited to:

- Adoption of air-cooling technology, which can reduce water consumption by about 80% compared with wet cooling units.
- Recycling of production wastewater for green watering and dust spraying, to conserve water resources.
- Enhance the publicity and inspection of water conservation, inspect water supply facilities every day, strengthen the management of leakage, strive to reduce the loss of water supply and eliminate the waste of water resources.

Case: Water reuse of Gezhouba Eco-Environmental Protection Company of China Energy

Gezhouba Eco-Environmental Protection Company of China Energy built a water reuse system for the effluent from the wastewater treatment plant. Its water plants realized water resources recycling by supplying reuse water to thermal power plants. In addition, through the research and development of water reuse devices, the water that meets the standards will be used to replace tap water, thus realizing resource conservation and recycling of water resources. Through water reuse, 16 million tonnes of water were saved by 2023, which played an important role in the protection of the urban water environment and the healthy recycling of the water system.



LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

During the Reporting Period, the main resource utilization of the Company is summarized as follows ^①:

Item of indicator	Unit ^②	2021	2022	2023
Electricity consumption	Ten thousand kWh	442,241	434,761	489,144
Gasoline consumption	Tonnes	58,570	57,162	64,043
Diesel consumption	Tonnes	937,859	885,111	801,039
Natural gas consumption	Ten thousand cubic meters	557	629	675
Fuel oil consumption	Tonnes	62	35	30
Purchased power consumption	Million kilojoules	0	78,017	828,063
Other energy consumption	Tonnes of standard coal equivalent	166,269	71,908	281,342
Non- petrochemical energy consumption	Tonnes of standard coal equivalent	–	–	345,056
Proportion of non-petrochemical energy use	percentage	–	–	7.10%
Comprehensive energy consumption ^③	Tonnes of standard coal equivalent	2,170,014	2,147,564	2,587,838
Unit comprehensive energy consumption for operating revenue	Tonnes of standard coal equivalent/RMB0'000	0.070	0.060	0.058
Total production water consumption	Tonnes	1,613,645	25,752,061	7,379,558
Unit water consumption for operating revenue	Tonnes/RMB0'000	0.052	0.718	0.179

Notes:

- ^① 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 on packaging materials did not constitute 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.
- ^② The statistical units of energy-saving operation index data are presented according to the original statistical units.
- ^③ 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).

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

3.4 PROTECTING NATURAL ECOLOGY

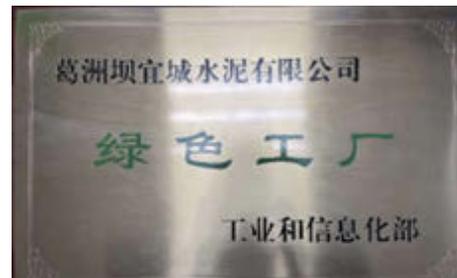
The Company adhered to the path of coordinated development between production and operation and environmental protection, continuously strengthened the construction of the environmental management system, coordinated and balanced the relationship between production and operation activities and the ecological environment, and actively carried out comprehensive management of the ecological environment, restoration of the natural ecology, protection of the biodiversity, and public welfare publicity on ecological protection, so as to promote the harmonious coexistence between human beings and the nature.

During the Reporting Period, subsidiaries of the Company received 61 environmental protection awards at the provincial and ministerial levels, and 10 projects recommended by the Company passed the China Construction Association’s Green Construction Standards Evaluation. Major ecological protection measures taken by the Company include but not limited to:

- Formed technological achievements in the whole life cycle of green mines, from mine planning, dust control on green mine roads, to concrete restoration of mine vegetation, effectively supporting the sustainable development of mine management business.
- Serving the national ecological civilization construction, the Company vigorously launched environmental protection projects such as black-smell water treatment and ecological environment restoration, and is committed to building a beautiful China with blue sky, green land and clear water.
- With the goal of creating a harmonious living environment, the Company serves the urbanization construction of various local governments and has undertaken dozens of soil remediation projects on construction sites, winning the praise of the government and property owners with high-quality works and excellent technology.



China Energy Construction Group was awarded “Outstanding Enterprise in Environmental Protection Industry of Anhui Province” in 2023



Gezhouba Yicheng Cement Company of China Energy was awarded “National Green Factory” by the Ministry of Industry and Information Technology in 2023

LUCID WATERS AND LUSH MOUNTAINS TO PROMOTE LOW-CARBON DEVELOPMENT

Case: Yancheng Tinghu District Water Environment Comprehensive Improvement PPP Project

The project is a key environmental protection project in Yancheng City, Jiangsu Province, and the construction content of the project includes new pollution interception project, silt dredging project, ecological restoration project, living water project, sewage network improvement project and sewage treatment plant. During the project management process, Gezhouba Eco-Environmental Protection Company of China Energy promoted the integrated management of “source control and pollution interception, endogenous treatment, ecological restoration and landscape enhancement”, and helped the local community to build an urban ecological undertone of “a network of rivers and a landscape of blue and green”.

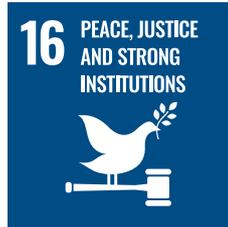


Case: Soil remediation achieved resource utilization

Wuhan Yangtze River New Area Soil Remediation Project was constructed by Gezhouba Eco-Environmental Protection Company of China Energy. The soil remediation adopts the cement kiln synergistic disposal technology, which introduces the heavy metals in the contaminated soil into the cement clinker crystals, and the organic pollutants are thoroughly decomposed, realizing the thorough and harmless disposal of the contaminated soil and resource utilization. The project realized the safe reuse of land resources, which is of great significance in promoting the construction of urban ecological civilization.



INNOVATION TO LEAD FOR BRAND EXCELLENCE



4.1 BUILDING QUALITY CONSTRUCTION

Relying on the leading technical level and excellent innovation ability, the Company steadfastly practiced and served the national strategy, acted as the most reliable support force for the Party and the country, created a series of high-quality projects with far-reaching influence, and demonstrated its corporate commitment through technical innovation and quality projects.

Case: Baihetan Hydroelectric Power Station was selected as one of the “Top 10 Global Engineering Achievements in 2023”

In December 2023, the Baihetan Hydroelectric Power Station, in which China Energy was deeply involved, was selected as one of the “Top 10 Global Engineering Achievements in 2023” by Engineering, the journal of the Chinese Academy of Engineering. As the world’s first hydroelectric power station with a capacity of one million kilowatts per unit, Baihetan Hydroelectric Power Station represents the highest level of hydroelectric technology development in the world due to its complex geological conditions and huge scale of construction. China Energy has been deeply involved in the construction of Baihetan Hydroelectric Power Station, insisted on innovation drive, and overcame a series of world-class technical difficulties, created world firsts in terms of the capacity of a single million megawatt hydroelectric unit, the scale of underground cavern group and the area of underground plant.



INNOVATION TO LEAD FOR BRAND EXCELLENCE

Case: Ulaanchabu Green Power Station, the largest wind-solar-storage demonstration project in China, was successfully connected to the grid.

The Ulaanchabu New Generation Grid Friendly Green Power Station Demonstration Project constructed by China Energy is the first “source-network-load-storage” integrated demonstration project in China, and will become an individual new energy power station with the largest energy storage configuration and the highest proportion in the world after the completion of the project, with an annual power generation capacity of about 6.332 billion kWh, which is able to satisfy the monthly electricity consumption of nearly 300,000 households. Compared with a coal-fired power plant of the same capacity, it can save 2,032,700 tonnes of standard coal, reduce sulfur dioxide emissions by 14,600 tonnes and carbon dioxide emissions by 5,205,300 tonnes per year, with significant environmental benefits.



Case: Commissioning of the world’s first megawatt-scale “hydro-photovoltaic complementary” power plant

The first phase of the Kela Photovoltaic Power Plant in Ganzi Prefecture, Sichuan Province, designed and constructed by the Southwest Institute of China Energy, has been connected to the grid, marking the commissioning of the world’s first megawatt-scale “hydro-photovoltaic complementary” power plant. The power station is the first phase of hydropower and photovoltaic complementary project of the Yalong River Lianghekou Hydroelectric Power Station, which is located in the western Sichuan plateau, with the highest altitude of the site is 4,600 meters, and an installed capacity of 1 million kilowatts, covering an area of 25,000 acres, making it the world’s largest hydropower and photovoltaic complementary project at the highest elevation. After the project is put into operation, it will be connected to the Sichuan main grid, providing important energy security for the construction of the Chengdu-Chongqing Twin Cities Economic Circle.



INNOVATION TO LEAD FOR BRAND EXCELLENCE

Case: Commissioning of Gansu Changle Power Plant, the largest megawatt unit installed in China

The 6 × 1 million kW ultra-supercritical coal-fired unit of Gansu Changle Power Plant, designed and constructed by China Energy, is the largest coal-fired power plant in China with a million-megawatt installed capacity (under construction). The project can support the new energy base in Gansu Hexi Corridor to generate 20 billion kWh of electricity annually, and is expected to drive 40 billion kWh of electricity from the Hexi region to central China annually, with the new energy output reaching 16 billion kWh, and drive 9.8 million kW of ancillary new energy construction, realizing the bundled and stable transmission of thermal power and new energy and optimizing the allocation of a wide range.



4.2 STRICTLY CONTROLLING ENGINEERING QUALITY

China Energy strictly followed 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 Control of Construction Projects, and constantly improved the Company's quality control-related systems, including the Regulations on Quality Control of China Energy Engineering Corporation Limited (《中國能源建設股份有限公司品質管制規定》), the Measures on QHSE Rewards and Punishments of China Energy Engineering Corporation Limited (《中國能源建設股份有限公司QHSE獎懲辦法》), the Measures on Management of Internal Audit of Quality, Environment and Occupational Health and Safety Management Systems of China Energy Engineering Corporation Limited (《中國能源建設股份有限公司品質、環境與職業健康安全體系內部審核管理辦法》), and the Measures on Management of QC Team Activities of China Energy Engineering Corporation Limited (《中國能源建設股份有限公司QC小組活動管理辦法》).

The Company always adhered to the management policy of "scientific management, integrity and compliance, continuous improvement and outstanding brand", carried out the concept of "one-time excellence, quality as the foundation", and always took quality as the "lifeline" of the enterprise, and implemented the whole process of quality management. The Company has won a number of national industry-level quality engineering awards, including 8 national gold medals for quality engineering, 17 national quality engineering awards, 1 Luban Award, as well as the China Civil Engineering Zhan Tianyou Award, China Installation Quality Award (China Installation Star), China Electricity Quality Engineering Award, China Water Conservancy Quality Engineering (Dayu) Award, and Highway and Transportation Quality Engineering Award.

During the Reporting Period, the Company's quality development was steady and progressive, with no quality liability accidents or serious quality incidents of general or above level occurring, and the quality qualification rate of products of survey and design, engineering projects and industrial equipment all amounted to 100%.

INNOVATION TO LEAD FOR BRAND EXCELLENCE

The major quality control measures the Company has taken during the Reporting Period include but are not limited to:

- **Focused on foundational quality responsibility, foundational quality competence and foundational quality capability.** The Company signed a QHSE responsibility letter to clearly define quality objectives and assessment indicators, and to press down responsibilities at all levels; launched activities to combat quality problems, promoted quality information management, and enhanced the problem-solving ability at the grassroots level; and strengthened the training and assessment of on-site operators in terms of technical procedures and construction techniques, and enhanced the comprehensive quality and business standard of the grassroots.
- **Systematically launched process quality supervision and inspection.** Taking the self-examination and rectification of quality risks and hidden dangers in the field of construction as a starting point, the Company conducted in-depth investigations of the quality control and physical quality of the projects, and carried out “plugging the loopholes, strengthening the weaknesses, and making up for the short boards” from the top to the bottom; and set up a working mechanism of “one examination and three supervisions” of self-examination and self-improvement, supervision by the leadership team, supervision in the performance of duties, and supervision of the projects, strengthened the process of control, and eliminated quality deficiencies on all fronts.
- **Promoted typical cases of quality improvement in key industries.** The Company strengthened the promotion of outstanding achievements, selected and promoted outstanding project quality plans, and promoted the rigid implementation of process management mechanism; launched mass quality activities in the form of quality control, “quality month” activities and quality knowledge competitions, and published more than 590 papers on quality achievements.
- **Continuously strengthened the operation and management of system construction.** The Company built a “1+106+N” documented management system, and integrated QHSE management into the development strategy, decision-making process and business process; strengthened the supervision and management of the operation of the quality system of its subsidiaries, and put forward the requirements and improvement measures in terms of preventing and controlling common problems, strengthening system management, preventing and controlling QHSE risks, and preventing accidents (incidents).

INNOVATION TO LEAD FOR BRAND EXCELLENCE

Case: Hangzhou Second Water Source Qiandao Lake Water Distribution Project won China's highest civil engineering award – Zhan Tianyou Award

The Qiandao Lake Water Distribution Project constructed by Gezhouba No. 1 Company of China Energy is a major livelihood project in Zhejiang Province to ensure the safety of urban water supply and improve the quality of drinking water, benefiting 15 million people. The construction project department puts into practice the concept of "lucid waters and lush mountains are invaluable assets", minimizing the impact of the project on the surrounding ecological environment while also protecting a pool of clear water in Qiandao Lake through sewage purification and reuse of resources, and realizing the return of "green" to the people and benefit the people.

**Case: Xi'an Consular District Silk Road International Culture and Art Center Project won National Quality Engineering Award**

Xi'an Consular District Silk Road International Culture and Art Center Project is a key construction project in Shaanxi Province in 2021 and a landmark building in Xi'an, which is a large-scale urban complex integrating culture, entertainment and commerce. Adhering to the principles of "world vision, international standards, Chinese characteristics and high positioning", and in accordance with the standards of "internationalization and nationalization", China Energy carried out the planning and construction of the project, which has won 36 awards, including the National Quality Engineering Award.



INNOVATION TO LEAD FOR BRAND EXCELLENCE

4.3 PROMOTING TECHNOLOGICAL INNOVATION

• Innovation-driven Development

The Company always puts technological innovation in a prominent position, and carries out special actions for technological innovation on improving technological innovation capability and strengthening key core technology research, highlighting the basic supporting role of innovation for transformation and development. The Company has revised the Provisions for the Administration of Technological Innovation Work, the Work Rules of the Scientific and Technology Committee, the Administrative Measures for New Technology Demonstration Project, the Administrative Measures for Technological Innovation Platforms, the Administrative Measures for Technology Awards, the Administrative Measures for the Incentives of Technological Innovation, the Administrative Measures for the Evaluation of the First Unit (Set) of Major Technical Equipment, the Administrative Measures for the Review of Major Equipment Technical Plans and Equipment Technology Introduction and other policies, and established a specific and high efficient technological management system.

During the Reporting Period, the main measures and achievements of the Company in innovation-driven development are as follows:

- **Implemented special actions for technological innovation.** 55 special actions for technological innovation were carried out, including promoting key core technology research, building a national R&D platform, creating the original technology source base and a modern industrial chain leader, etc.
- **Actively declared and undertook national key R&D projects.** The Company fully exerted the technical and business advantages, strengthened the alliance with advantageous units, and organized and declared 12 national key projects. The national key R&D plan of “Key Technologies and Equipment for New High-altitude Wind Power Generation” was successfully approved, and the “Research on Over Thousand Meters High-altitude Wind Power Generation Technology” was supported by the state.
- **Strengthened the whole-process management of major science and technology projects.** The Company well performed major scientific and technological projects under “technology reward system (揭榜掛帥)”, and achieved a number of major scientific and technological achievements in the fields of “30·60” system solutions, new power system, compressed air energy storage, hydrogen energy and transportation and energy integration, etc.
- **Declared a number of national first Unit (Set) and demonstration projects.** Four equipment including the “300MW Compressed Air Energy Storage System” were selected into the list of the first unit (set) major technical equipment in the third batch of energy fields of the National Energy Administration; four projects including compressed air energy storage projects in Yingcheng, Hubei Province, Jiuquan, Gansu Province, Wulan, Qinghai Province, and the gravity energy storage project in Zhangjiakou, Hubei Province, were successfully selected as pilot demonstration projects of new energy storage by the National Energy Administration; and the Company developed and mastered the 1,500 Nm³/h alkaline electrolytic water hydrogen production equipment and process package, and set up the first experimental and test platform for stable and transient states of 8MW large-scale alkaline electrolytic water hydrogen production unit in China.

INNOVATION TO LEAD FOR BRAND EXCELLENCE

- **Steadily pushed forward the construction of new technology demonstration projects.** The Jixi high-altitude wind power generation new technology demonstration project successfully generated electricity; the auxiliary system of the new technology demonstration project of Hubei Yingcheng 300MW compressed air energy storage power station successfully received power; the Jilin Songyuan Green Hydroaminol Integrated New Technology Demonstration Project commenced the construction; and the electrochemical energy storage battery project completed the delivery of the first batch of OEM battery products, and the self-developed 280Ah battery products passed the third-party inspection and certification.
- **Proactively participated in the declaration of high-level awards, and enhanced the right to speak of the Company in the technology industry.** During the Reporting Period, the Company won 20 provincial and ministerial science and technology awards, 6 China electricity science and technology awards and 18 industry-level science and technology awards.

Case: “Key Technology and Application of Giant Mixed Flow Unit Installation” won the first prize of China Electric Power Science and Technology Award

The 0.6-1.0 million giant hydro-generator unit is the inevitable trend of hydropower construction and development due to its good technical and economic performance. In order to ensure the safe and stable operation of the unit, China Energy has carried out the research on key technologies for installation of giant unit, which have been applied to major national projects such as Baihetan, Xiluodu and Wudongde hydropower stations, achieving a major breakthrough in the installation of high-end equipment in China and making outstanding contributions to high-quality development and green transformation of the economy and society.



INNOVATION TO LEAD FOR BRAND EXCELLENCE

Case: “Key Technology and Application of Dual-Direction Large Curvature Wind-Resistance and High-Rising Hydraulic Self-lifting Cantilever Formwork” won the first prize of China Engineering Construction Technology Invention

The Wudongde Dam is a critical high concrete hyperbolic arch dam, and its structure is extremely complex, thus the formwork design is facing great challenges. China Energy relied on the concrete project of the dam of Wudongde Hydropower Station to carry out special research, and successfully applied the research results. The designed formwork is safe and reliable, which improves the construction efficiency and greatly shortens the construction period. The construction quality of the project has been highly praised by experts and regulatory authorities.



• Protection of Intellectual Property Rights

The Company constantly improves the intellectual property protection and management measures such as patents and copyrights, respects the intellectual property rights and interests of all parties, strengthens the intellectual property rights management, and carries out the intellectual property protection and innovation incentives in strict accordance with the Patent Law of the People’s Republic of China, the Regulations on the Administration of National Standards Involving Patents (Provisional), the Trademark Law of the People’s Republic of China, the Copyright 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 and other relevant laws and regulations on patents, copyrights and technological innovation. The Company has formulated the Administrative Measures for Science and Technology Achievements, the Administrative Measures for Intellectual Property Rights, the Administrative Measures for Construction Method and the Administrative Measures for Patent to standardize the management of science and technology achievements, intellectual property rights, construction methods and patents.

Information on the Company’s technological innovation:

Item	Unit	2023	2022	2021
Total number of patents	/	15,828	11,372	10,198
Number of new patents	/	2,085	2,162	1,541
Number of new patents for invention	/	419	334	211
Number of new software copyrights	/	293	323	261
R&D expenditure	RMB million	12,800	11,307	9,987
Number of technological R&D projects	/	634	876	851

INNOVATION TO LEAD FOR BRAND EXCELLENCE

4.4 STRENGTHENING SUPPLY MANAGEMENT

• Supply Management

Under the management principle of “unified database establishment, hierarchical management, strengthened supervision, dynamic evaluation, resource sharing, joint risk prevention, strategic cooperation, mutual benefit and win-win”, focusing on the key business of “supplier system construction, classification and grading, assessment and evaluation, credit management, resource sharing and risk prevention”, the Company built a supplier management system covering the whole process of supplier sourcing, admission, use, evaluation and withdrawal to achieve more efficient and scientific supplier selection and control.

The Company has formulated the Measures on Managing Suppliers and the Measures on Managing Supplier Blacklist, continuously advanced the construction of modern supply chain system and promoted the supply chain being green, safe, stable and independent controllable. As of the end of 2023, the Company had a total of 23,406 suppliers, including 11,079 commodity suppliers, with an annual assessment coverage ratio of 100%.

During the Reporting Period, the main measures and achievements of the Company in strengthening the supplier management are as follows:

- **Built an integrated platform for supply chain management in an all-round way.** The Company independently developed and built the integrated platform of “6P1 Center” supply chain management, covering seven application scenarios, i.e. “standard merchants, sunshine procurement, digital and intelligent e-commerce, digital supervision, intelligent warehousing, intelligent logistics and data center”, realizing the informationization and digital management of the whole procurement life cycle, and building an ecological closed loop of the supply chain. It was awarded the “Typical Case of National Supply Chain Innovation and Application Demonstration Enterprise” by the Ministry of Commerce and “2023 Top Ten Electronic Procurement Platform in China” by the China Federation of Logistics and Purchasing.
- **Carried out the evaluation of “Excellent Supply Chain Partners”.** The Company organized the evaluation of excellent supply chain partners, continuously optimized the supply chain management system and deepened the strategic supplier management.
- **Organized the “First Session of Supply Chain Cooperation and Development Conference of China Energy”.** The conference promoted the establishment of long-term and stable cooperation and win-win relations between the Company and excellent suppliers in various industries at home and abroad. The conference completed the on-site signing of contract of USD1.581 billion.
- **Group-level suppliers blacklist mechanism.** The Company accepted the supplier evaluation and group-level blacklist, and coordinated with the Commission for Discipline Inspection to include the blacklist of bribers in the group-level suppliers blacklist.

INNOVATION TO LEAD FOR BRAND EXCELLENCE

• Procurement Management

The Company strictly abides by the Bidding Law of the People’s Republic of China, the Implementation Regulations of the Bidding Law of the People’s Republic of China and other national laws and regulations, and clarifies the applicable conditions and procurement processes of various procurement methods according to the Procurement Management Measures of Energy China Engineering Corporation Limited. Through unifying and solidifying relevant processes through the electronic procurement platform, the unified standards, unified platforms, unified applications and unified supervision of the Group have been realized, ensuring that procurement is compliant with laws and regulations, open and transparent, and traceable throughout the whole process.

In terms of procurement supervision and inspection, the Company formulated the Procurement Supervision and Management Measures of Energy China Engineering Corporation Limited, built a pre-, in- and post-procurement supervision system, and implemented hierarchical supervision and management; intensified procurement supervision and used “big data procurement supervision” function at the electronic procurement platform to achieve accurate positioning; and continuously improved the accuracy of supervision through data comparison, and regularly checking clues of problems. During the Reporting Period, a total of 4 on-site inspections and 6 online inspections were carried out, and a total of 50 online supervision inquiry letters were issued.

Basic information of suppliers of the Company:

Item	Unit	2023
Total number of suppliers by supplier classification		
• Commodity supplier	/	11,079
• Subcontractor	/	5,073
• Service provider	/	7,254
Number of suppliers by region		
• Domestic	/	23,366
• Overseas	/	40

4.5 CARRYING OUT INTERNATIONAL COOPERATION

The Company vigorously implemented the strategy of giving priority to high-quality coordinated development of international business, carried out in-depth bilateral and multilateral cooperation in green energy and green infrastructure, and promoted the “integrated” development advantages of the most advanced technologies, standards, design, investment, construction, operation and equipment in China and even in the world to countries that jointly built the “Belt and Road”, providing forward-looking, systematic, innovative and effective energy solutions for customers in the world, and supporting the transformation and upgrading of the global energy structure. The Company ranked 2nd in the Top 150 Global Engineering Design Firms, 20th in the Top 225 International Engineering Design Firms, 10th in the Top 250 Global Contractors and 17th in the Top 250 International Contractors.

INNOVATION TO LEAD FOR BRAND EXCELLENCE

As of the end of 2023, the Company has formed the “6+M” organizational structure with global layout and regional governance, with 6 regional headquarters and 256 branches around the world, and its business scope covers more than 140 countries and regions.

During the Reporting Period, the Company’s main international business management measures include but are not limited to:

- Introduced the Optimization Plan for the International Business Market (Institution) Layout, the Notice on List of Qualified Enterprises for International Business Country (Region) Market Layout and other policies to strengthen overseas market layout management.
- The International Group has prepared the Bidding Management Measures and the Regulations on the Administration of International Market Development (Trial) to promote the quality and efficiency improvement of the overseas market development.
- Set up a special team for key projects, actively coordinated internal and external resources to promote the project implementation, and intensified the cooperation and communication with overseas governments, land owners, investors and upstream and downstream partners in the industrial chain, to expand the channels for project information collection.
- Focused on core and backbone countries, took key markets and key projects as starting points, strengthened business investigation, standardized and regulated the research and bidding organization planning, established the bidding database in country markets, and reasonably assessed risks.
- Proactively guided overseas projects to implement quality projects, established a good brand image, established a good incentive and restraint mechanism and innovated project implementation modes.

INNOVATION TO LEAD FOR BRAND EXCELLENCE

During the Reporting Period, the main overseas projects signed by the Company include but are not limited to:

- **Uzbekistan Bash and Zankeldi Wind Power Project.** With an installed capacity of 1GW, it is currently the largest wind power project under construction in Central Asia in terms of installed capacity. After being put into production, it is estimated that it can provide approximately 3.5 billion kWh of electricity to the local power grid every year and reduce local carbon emissions by 1.6 million tonnes.
- **Uzbekistan Bukhara and Qashqadaryo Photovoltaic Project.** With an installed capacity of 1GW, it is the first large-scale new energy project invested and constructed by Chinese enterprise in Central Asia after the China-Central Asia Summit.
- **Saudi PIF Phase II Photovoltaic Project.** With an installed capacity of 2.6 GW, the entering of the project is an important achievement in promoting the “Green Saudi Arabia” and “Green Middle East” initiatives and the docking of Saudi Arabia’s “Vision 2030” and the “Belt and Road” initiative, and continuously expanded the pragmatic cooperation between both parties in the global new energy field.
- **Oman Manah II Photovoltaic Power Project.** With an installed capacity of 588.2MW, the project is expected to reduce greenhouse gas emissions by approximately 340,000 tonnes every year.

During the Reporting Period, the international exchanges and cooperation conducted by the Company include but are not limited to:

- Coordinated public relations channels, empowered international business through high-end summit and “headquarter to headquarter” docking, and enhanced the ability of “taking the lead for overall management”.
- Smoothened the public relations sharing channel, further optimized and improved the hierarchical management system of international business in accordance with the cooperation mechanism of the third session of the “Belt and Road” Summit Forum, and maximized the development synergy.
- Innovated the public relations management approach, deployed and carried out relevant work in advance according to the “system-based, sheet-based, project-based and mechanism-based” requirements, guided subsidiaries to integrate into the public relations management system and strengthened the project docking.
- Solidified the new pattern of “1+2+N+X” international business, relied on large-scale summits and forums, organized high-level meetings and enhanced the brand image.

INNOVATION TO LEAD FOR BRAND EXCELLENCE

Case: CEEC attended the third session of the “Belt and Road” International Cooperation Summit Forum

On 17 to 18 October 2023, Song Hailiang, the secretary to the Party committee and chairman of China Energy, was invited to attend the opening ceremony of the third session of the “Belt and Road” International Cooperation Summit Forum, and delivered a keynote speech at the “Belt and Road” CEO Conference and the High-level Forum on Digital Economy. During the conference, China Energy signed 8 overseas projects on site, and nearly 30 projects were listed in the list of achievements of the CEO Conference. The overall cooperation amount of the projects signed on site and listed in the list of achievements exceeded USD10 billion.

**Case: The power plant constructed, operated and maintained by China Energy in Turkey operated steadily and safeguarded the power supply during the strong earthquake**

On 6 February 2023, two strong earthquakes of magnitude 7.8 and several earthquakes of magnitude 6 or above occurred in Turkey, causing heavy losses of personnel and property. The site that Hunutlu coal-fired power plant built by China Energy is located in the center of the strong earthquake. The plant has been running smoothly all the time, becoming the mainstay of the power system, and providing safe and stable power guarantee for local residents, emergency repair and earthquake relief. The Hunutru power plant can supply 9 billion kWh of electricity to Turkey every year, guarantee more than 4 million Turks for electricity usage, drive more than 1,500 local citizens for employment, and make important contributions to local economic development and improvement of people’s livelihood.



INNOVATION TO LEAD FOR BRAND EXCELLENCE

Case: The President witnessed the commercial operation of No.1 gas turbine of the largest gas turbine combined-cycle power plant in Central Asia

In November 2023, the No.1 gas turbine of the 1,500MW gas turbine combined-cycle power plant project of Syr Darya in Uzbekistan, the largest gas turbine combined-cycle power plant in Central Asia undertaken by China Energy on general contracting basis, was officially put into commercial operation. Uzbek President Mirziyoyev attended the commissioning ceremony.



4.6 PROTECTING CUSTOMER RIGHTS

The Company always puts customer needs and feedback in the first place, and is committed to satisfying customer needs, strengthening customer care, enhancing customer relations and improving customer satisfaction. During the year, the Company carried out more than 100 high-end docking plans, signed 33 strategic cooperation agreements and held 13 “Four Major Alliances” theme forums, and established a sustainable win-win and mutually beneficial relationship with customers. The Company has improved the Implementation Rules for Domestic Business Contract Review (《境內業務合同評審實施細則》), which clarifies the classification and hierarchical management of domestic contracts, the review process of domestic traditional business contracts and the review process of investment contracts. The Company formulated 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》), which clarifies the concept, management organization and responsibilities of customer satisfaction, methods, ways and procedures of obtaining customer satisfaction information, customer satisfaction ledger management, customer satisfaction survey and assessment, etc. In terms of dealing with customer complaints, the Company continued to strengthen the performance regulation mechanism to timely understand the concerns in project management, actively guided, procured and coordinated with relevant units to formulate countermeasures to ensure that the concerns of all parties are properly responded to. Besides, in order to safeguard the security of customer information, the Company made special regulations on the confidentiality of customer information. During the Reporting Period, there was no complaints from customers, nor leakage of customer privacy in the domestic market within the Company.

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH



5.1 BUILDING A DIVERSE TEAM

The Company strictly abides by 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 and the Prohibition of Child Labor Provisions, and the relevant international, national and local standards, rules and regulations for preventing child labor or forced labor, and formulated and implemented the Regulations for the Management of Labor Employment, the Implementation Rules for the Management of Labor Contracts and other policies to protect the legitimate rights and interests of employees and establish a standardized employment process and package system. We oppose any form of child labor and forced labor, insist on standardizing employment according to law, establish a standardized recruitment information collection and approval process, and carefully examine the authenticity of candidates' qualifications to avoid misuse of child labor and forced labor. 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.

The Company ensures the open recruitment information, fair recruitment process and merit-based recruitment. The Company regulates employment in accordance with the law and opposes all discriminatory behaviors. In the process of recruitment, the Company treats employees of different nationalities, region, ethnicity, color and religious beliefs fairly and impartiality. As long as the applicant conforms to the labor policy of the country where he/she locates, and his/her educational background, ability, characteristics, among others, meet the requirements of relevant position, and an agreement on the remuneration is reached, the Company would accept the applicant and sign a labor contract according to law. Besides, the Company actively implements the strategy of internationalization and localization of talents to solve the problem of shortage of professional and technical personnel required for expanding the international market and implementing overseas projects.

During the Reporting Period, the Company had 117,039 employees in total, all of which are full-time, with employee turnover rate of 2.9%.

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Employment of the Company's employees¹:

Item	Unit	2021	2022	2023
Total number of employees	Person	115,325	114,608	117,039
By employment type				
Full-time	Person	115,325	114,608	117,039
Part-time	Person	0	0	4²
By gender				
Male employees	Person	91,850	91,890	93,332
Female employees	Person	23,475	22,829	23,707
By age				
Aged 35 and below	Person	41,220	40,270	42,570
Aged 36 to 45	Person	28,556	28,584	29,598
Aged 46 to 54	Person	33,685	33,754	33,323
Aged 55 and above	Person	11,864	12,000	11,548
By title and skill level				
Senior professional	Person	2,647	2,843	2,931
Deputy senior	Person	15,950	16,871	17,594
Intermediate	Person	22,398	23,581	24,179
Junior	Person	17,629	18,493	18,183
Senior technician	Person	2,137	2,351	2,362
Technician	Person	6,745	6,714	6,620
Senior worker	Person	12,023	12,132	10,933
Intermediate worker	Person	3,949	3,950	3,518
Junior worker	Person	1,132	998	863
Other personnel	Person	30,715	26,675	29,856
By educational background				
PhD holder	Person	343	372	419
Postgraduate	Person	13,205	14,565	16,239
Undergraduate	Person	46,785	48,868	52,323
College	Person	23,453	22,752	21,510
Technical secondary school and below	Person	31,539	28,051	26,548

Notes:

1. 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. The Company will try to establish a statistical and disclosure mechanism in the future.
2. The number of part-time employees is not included in the total number of employees and other classified employee data statistics.

ENHANCEMENT OF PEOPLE’S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Item	Unit	2021	2022	2023
By position				
Management personnel	Person	38,254	40,483	38,480
Professional technical personnel	Person	39,690	40,050	47,170
Skilled operation personnel	Person	22,789	20,005	20,746
Other personnel	Person	14,592	14,070	10,643
By region				
Domestic	Person	107,273	107,670	110,314
Overseas	Person	8,052	6,938	6,725
Foreign employees				
Foreign employees	Person	–	–	14,504

5.2 FOCUSING ON TALENT DEVELOPMENT

The Company adheres to the people-oriented principle and encourages employees to continue learning to adapt to the changing market environment and technological advancement. Guided by actual work needs, the Company strengthens business training, focuses on cultivating employees’ innovative thinking, dedicates to create a training culture and consensus that “learning is the source of thought”, enhance the learning ability, thinking ability, innovation ability, execution ability and communication ability of all employees, comprehensively enhance the strategic adaptability of the talent team, further improve the value creation ability of the employees, build a talent energy engineering and promote the innovative development of the Company.

Focusing on the “1+5+N” talent training system, the Company has built a classified and hierarchical “6+N” talent highland of energy engineering with outstanding characteristics, improved the development channel for all employees in “four channels and four levels”, and promoted the all-round growth of all kinds of talents. The Company revised a series of management measures related to the development of talents, systematically planned training courses, defined the responsibilities and requirements of training teachers, and unified the training assessment and evaluation. In 2023, the Company formulated the “Guidelines for Training Resource Management” and the “Training Standardization Manual (Version 1.0)”, which further improved and developed the training policies and system of energy engineering.

In 2023, the Company organized the rotation training classes of the spirit of the 20th national congress of the CPC, organized the rotation training of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and held 57 training programs, including full-time training courses for directors and supervisors, advanced training courses for youth cadres’ competence, advanced training courses for leading talents in finance and taxation, training courses for international and domestic project managers, compliance management training courses, QHSE management training courses and investment business training courses, etc. Through a series of trainings, the Company could unify the thought of talents, expand their vision, promote their coordination and development, effectively improve the capability and quality of cadres, and promote the construction of a high-quality talent echelon.

ENHANCEMENT OF PEOPLE’S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Case: Trainings for competence of entrepreneur talents and youth cadres

On 10 July 2023, the first session of advanced training class for entrepreneur talents and youth cadres of China Energy was held at the headquarter of the Company. Song Hailiang, the secretary to the Party committee and chairman of the Company, attended the opening ceremony and delivered the first lesson to the training class with the title of “Exerting Self-cultivation Strength, Cultivating the Characteristics of Confucianism, Taoism and Buddhism, Building a “Three Forces” Team, and Providing a Strong Guarantee for Building a World-class New Energy Engineering in an All-round Way”.



Employee training of the Company in 2023:

Item	Unit	2023
Number of trained employees by type of employees		
Total training hours	0'000 hours	510.16
Number of trained employees by type of employees		
Management personnel	0'000 person-times	39.94
Professional technical personnel	0'000 person-times	42.60
Skilled operation personnel	0'000 person-times	15.58
Other personnel	0'000 person-times	2.21
Number of trained employees by training content		
Job training	0'000 person-times	70.82
Continuing education training	0'000 person-times	5.61
Other training	0'000 person-times	23.9
Percentage of trained employees by gender		
Percentage of trained male employees	%	91.2
Percentage of trained female employees	%	86.4

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Item	Unit	2023
Percentage of trained employees by type of employees		
Percentage of trained management personnel	%	91.24
Percentage of trained professional technical personnel	%	92.08
Percentage of trained skilled operation personnel	%	88.63
Average training hours of trained employees by gender		
Average training hours of male employees	Hour/person	74.28
Average training hours of female employees	Hour/person	73.79
Average training hours of trained employees by type of employees		
Average training hours of management personnel	Hour/person	77.78
Average training hours of professional technical personnel	Hour/person	75.14
Average training hours of skilled operation personnel	Hour/person	43.09

5.3 CARING FOR EMPLOYEES' HEALTH

The Company strictly abides by the Occupational Disease Prevention Law of the People's Republic of China and the Production Safety Law of the People's Republic of China and other laws and regulations, and constantly improves the occupational health and security of employees, and develop the safety production security system for employees.

- **Guarantee Occupational Health**

In accordance with the Occupational Disease Prevention Law of the People's Republic of China, the Plan for Handling Public Health Emergencies in the PRC and the Measures for the Supervision and Administration of Occupational Health Surveillance and other laws and regulations, the Company incorporated the occupational health and safety requirements into the Management Regulations on Safety Production, the Safety Production Responsibility System, the Plan for Handling Public Health Emergencies and other systems to coordinate the occupational health work and ensure the occupational health and safety of employees. The Company adheres to the principle of "prevention first and combination of prevention and control", prevents and controls from the source according to law, and implements multiple policies to protect the health of workers. During the Reporting Period, there was no occupational health emergencies occurred.

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

The major measures taken by the Company to enhance occupational health management during the Reporting Period include but are not limited to:

- conscientiously implemented various requirements for occupational health proposed by superiors, and made overall arrangement and deployment of occupational health.
- improved the management system of occupational hazard prevention and control and occupational health monitoring at all levels, and strictly implemented the occupational health management responsibilities and measures.
- carried out occupational hazard factors monitoring and appraisal and prevention and control of occupational hazard from the source.
- strengthened occupational health publicity and training to enhance the staff's awareness and ability of occupational health protection.
- guaranteed the investment in occupational health, strengthened the management of labor protection supplies, and standardized the setting of occupational hazard protection facilities and warning signs.
- strengthened occupational health examination, discovered occupational contraindications and health damage of labors in a timely manner, and effectively prevented, controlled and eliminated occupational diseases.

• Promote Safe Production

The Company fully implemented the requirements of the Opinions of the CPC Central Committee and the State Council on Promoting Reform and Development of Work Safety, the Production Safety Law, the Measures for Work Safety Incident Reporting, Investigation and Disposition, the Administrative Regulations on the Work Safety of Construction Projects, the Supervision and Management Measures of Work Safety at Central Enterprises and other laws and regulations, and established and improved the Management Regulations on Safety Production, the Safety Production Responsibility System and the Measures for Management of Safety Risk, the Management Measures for Project Process Safety, the Emergency Management Measures, the Administrative Measures for Production Safety Incidents, Quality Incidents and Environmental Incidents, the QHSE Rewards and Punishment Measures, the Administrative Measures for QHSE Education and Training and other safety production rules and regulations. During the Reporting Period, the Company revised the Implementation Measures for Supervision of Work Safety Performance, the Contracting (Subcontracting) Safety Management Measures and the Implementation Rules for the Evaluation and Scoring of QHSE of Subsidiaries, to ensure the continuous and effective operation of the safety production management system.

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

During the Reporting Period, the eight major measures and corresponding performance of the Company to ensure production are as follows:

- **Consolidated the QHSE responsibility.** The Company deeply practised the “Ten Leads” in safety production, deepened the QHSE supervision and accountability, and procured the person-in-charge of the Company to perform their duties diligently.
- **Deepened the support of the QHSE system.** The “Zero Non-compliance” of the headquarter passed the “Certification of Three Standards and Systems”, and the Company issued two manuals, i.e. the “Standardization Manual of Safety Facilities of Engineering Projects” and the “Standardization Manual of Safety Procedure Management of Engineering Projects”, and focused on improving the standardization level of safety production.
- **Strictly implemented safety risk warning supervision.** The Company established and improved the QHSE basic information database and strengthened the risk warning supervision. During the year, there were 52 risk warning notices, 3,402 supervisions on major risks and above, 207 extreme weather warnings and 4 earthquake emergency responses.
- **Accurately controlled safety risks in key time frames and key areas.** The Company coordinately conducted the investigation and remediation of risk areas such as fire protection and dam operation of hydropower stations, strengthened seasonal risk prevention and control, and implemented the remote supervision mechanism of holiday on-duty at the headquarter. 15 special rectifications were carried out throughout the year, and a total of 139,000 hidden dangers were investigated and managed, and more than 15,000 management suggestions were put forward; 53 projects were supervised remotely during key time frames, and “zero report” was implemented within 98 days.
- **Comprehensively promoted safety management.** The Company organized the construction of “one network” covering process QHSE management evaluation, hidden danger investigation and management, and the process QHSE management APP, and applied information means to improve the investigation and management.
- **Made every effort to improve the QHSE quality and ability.** The Company organized the special training of QHSE persons-in-charge, formulated the ability evaluation standard of QHSE supervisor posts, and included the legal responsibility of “anti-violation” in the selection standard of “Peaceful Guardian”, so as to promote QHSE managers to perform the “anti-violation” with confidence and rigidity.
- **Made every effort to enhance the brand influence of “Peaceful Energy Engineering”.** The Company was invited to participate in China Electric Power Construction and Development Conference, the Electric Power Safety Management and Culture Forum and the Electric Power Safety Academic Forum, and exchanged typical experiences of “Peaceful Energy Engineering”. The Company ranked 12th among central enterprises in the National Safety Production Knowledge Competition, and excellent practices and series of activities were reported by major media for several times.

During the Reporting Period, there were no major production safety accidents or above during the year, the production safety condition remained stable, and the foundation for safe development became more solid.

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Case: Coordinating the "two actions" including the major accident hidden danger rectification and the year of strengthening safety management

The Company has deeply carried out the annual action to strengthen safety management and the special investigation and rectification of major accident hidden danger in 2023. The principal responsible persons at all levels have conducted 152 special studies on the investigation and rectification, and the responsible persons of enterprises at all levels have conducted 496 on-site supervision and inspections. The Company has rectified a total of 222 major accident hazards and 2,493 general hazards throughout the year.



Safety production of the Company:

Item	Unit	2021	2022	2023
Investment in safety production	RMB0'000	267,395.38	361,809.2	486,596
Full-time personnel on safety	Person	4,482	4,562	8,016
Total number of employees participating in safety training	0'000 person-times	45.2	45.4	48
Safe production accidents	Time	10	3	3
Lost working days due to work-related injuries ³	Day	72,000	18,000	18,000

Item	Unit	2021	2022	2023
Full-time employees died in production accidents in the past three years	Person	1	0	0
Death rate per thousand full-time employees in the past three years	Person/thousand persons	0.01	0	0
Number of employees died in production accidents of contractors (subcontractors)	Person	11	3	3

Note:

- 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.

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

• Overseas Safety Management

In accordance with the Guidelines on Safety Management of Overseas Chinese Enterprises and Personnel issued by the Ministry of Commerce, the "1+15" security management system documents of the SASAC and the Notice on Strengthening the Safety Protection of Overseas Chinese Enterprises and Personnel issued by the Ministry of Commerce, the Ministry of Foreign Affairs and the SASAC, the Company has formulated a series of overseas security risk prevention systems, including the Administrative Measures for the Safety of Overseas Institutions and Personnel, the Implementation Rules for Overseas Social Security Management and the Emergency Plan for Overseas Security Emergencies, to guide and strengthen international business social security disposal and emergency management. The Company firmly established the development concept of "people first and life first", and strictly implemented the relevant requirements for social security accountability and overseas social security management of the Company based on the principle of "who is in charge, who bears the responsibility; who employs workers, who bears the responsibility".

During the Reporting Period, the Company strengthened supervision and inspection, improved the level of project safety assurance, and measures taken by the Company include but not limited to:

- strengthened supervision and inspection of overseas social security management of affiliated enterprises, specified work objectives, work standards and inspection points, formulated a thorough inspection plan, and carried out supervision and inspection focusing on overseas social security management system, management processes and work implementation of affiliated enterprises.
- closely focused on the goal of "implementing new security concept, integrating into big security pattern, constructing safety operation system, improving security management level and forming an all-round and three-dimensional situation of overseas social security prevention and control", clarified the development direction of overseas social security, and promoted the formation of a highly unified overseas social security ideological consensus among all enterprises.
- adopted the model of "enterprise inspection, supplemented by the inspection of its key projects (institutions), and exchange of relevant units for learning", focused on six major links including pre-meeting evaluation, policy advocacy, inspection guidance, exchange and mutual promotion, supervision and rectification, and closed-loop management, formed a good safety atmosphere of "linking upper and bottom level, joint management and full participation", and continuously constructed the social security supervision and inspection system of "key monitoring, professional management, hierarchical responsibility and step-by-step implementation".

The Company completed supervision and inspection of 27 affiliated enterprises through various forms of inspections such as video inspection, data access and on-site inspection, conducted random inspection of 31 key projects (institutions) with higher risks, and issued a total of 30 rectification notices to affiliated enterprises and units with prominent social security management problems, which have all been rectified in a closed-loop, thus realising "full coverage" of supervision and inspection of enterprises in high-risk countries (regions).

ENHANCEMENT OF PEOPLE’S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

5.4 SUPPORTING RURAL REVITALIZATION

The Company regarded consolidating poverty alleviation achievements and assisting rural revitalization as a major political task, constantly innovated ideas and strengthened work measures, and continuously deepened targeted assistance to support rural revitalization.

During the Reporting Period, the Company took important measures to support rural revitalization:

- **Continuously strengthening capital investment and introduction efforts.** The Company invested RMB15.107 million in free assistance funds and introduced RMB2.6974 million in assistance funds.
- **Optimizing and strengthening characteristic industries according to local conditions.** The Company helped assisted counties in cultivating and strengthening characteristic industries according to local conditions, took multiple measures to promote industrial upgrading, and implemented 9 industrial assistance projects.
- **Taking multiple measures to achieve a record high number of trainees.** The Company deeply explored internal and external resources, continuously expanded the scope of training, increased training efforts, and organized trainings for a total of 5,689 person-times which recorded a new high.
- **Promoting the dissemination and promotion of outstanding rural intangible cultural heritage.** The Company supported the digital construction of Zhenba County Cultural Center and published the Red Ballads of Zhenba Folk Songs (《镇巴民歌红色歌谣》), and constructed the first phase of the Southwest Intangible Cultural Heritage Research and Inheritance Base (Xilin) project.
- **Building demonstration villages and towns to promote the construction of beautiful villages.** The Company built the “Luyuan Tea Fragrance (祿源茶香)” parking lot with high standard in Zhenba County to assist in the development of characteristic towns, and invest funds to carry out rural living environment improvement in Xilin County.
- **Co-construction of Party branches and rural governance shining under the banner of the Party.** The Company insisted on Party building to promote revitalization, and transformed the political and organizational advantages of the Party into development advantages for promoting rural revitalization through pairing and co-building with primary Party organizations in assisted counties, implementing the governance responsibilities of the first secretary stationed in the village, supporting village collective economy and other forms.
- **Organizing donations and consumption assistance.** The Company provided assistance to Basu, Tibet Region, Changyang, Hubei Province and Zigui, Hubei Province and other regions, with a total donation of more than RMB10 million. The Company promoted local economic development through consumption assistance, and carried out consumption assistance to support Zigui County and Changyang County in Hubei Province, Zhenba County in Shaanxi Province, Xilin County in Guangxi Province, Xinjiang and Tibet, with a total amount of RMB32.278 million.

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Case: Contributing to rural revitalization in Xilin County, Guangxi Province

China Energy and Xilin County deepened practical cooperation and promoted local economic and social development according to local conditions.

- **Focusing on industrial assistance.** The Company carefully planned to promote the development of characteristic rural industries, and invested RMB4 million in industrial assistance. China Energy Guangxi Institute, Northeast Power Third Company and Xilin County entered into a strategic cooperation framework agreement for the construction of national reserve forest bases. The project can accommodate approximately 600 laborers, and the planting and management of forest trees will further promote the modernization of agriculture in Xilin County.
- **Emphasizing quality cultivation.** The Company actively collaborated with local governments to carry out high-quality farmer cultivation and employment skills training, expanded the scope of training personnel. The Company invested RMB350,000 throughout the year and trained a total of 3,088 people to support talent revitalization.
- **Carrying out cultural dissemination.** The Company invested RMB3 million to upgrade and renovate the “one gate and three governors (一門三總督)” Tusi Ancient Architecture Scenic Area in Nalao Town, Xilin County, drove employment for 100 surrounding residents, and promoted the dissemination and promotion of outstanding rural intangible cultural heritage.
- **Improving living environment.** The Company invested RMB695,600 to strengthen the improvement of rural living environment and assist in ecological revitalization.
- **Giving full play to the leadership of Party building.** With the model of “Party building + culture”, the Company carried out joint construction and co-construction activities with 11 grassroots Party branches in Xilin County to assist in the construction of the Party member team.
- **Building sales channels.** The Company fully gave play to consumer platforms such as the CEEC Mall, Central Enterprise Consumption Platform and Benlai.com to facilitate the procurement docking of agricultural products for the Tianxi Expressway project company. Gezhouba Cement Company of China Energy held a live streaming sales event in Xilin County, continuously sparking a “buying frenzy”.



ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

• Assistance for Regional Development

China Energy fully implemented the Party's strategy of governing Tibet and Xinjiang in the new era, firmly implemented the deployment requirements of the third working conference on the support for Tibet and the working conference of central enterprises on the support for Xinjiang and Tibet, grasped the great significance of supporting for Xinjiang and Tibet from a political perspective, and promoted regional construction and development.

Case: Assisting the construction of power facilities in Tibet

China Energy gave full play to the advantages of coordination between Tibet Institute and EPPE, further expanded the breadth and depth of localized services in Tibet, and assisted in high-quality development of the energy industry in Tibet.

Giving full play to the advantages of top think tank on the plateau. In 2023, the Company has successively undertaken major energy and power planning research work such as the Plan for Domestic Power Supply Guarantee and Use of Electricity for Major Project Construction in the Tibet Autonomous Region (2023-2035) (《西藏自治區內需電源保供和重大項目施工用電規劃(2023—2035年)》) and the Implementation Plan for New Power System Construction in the Tibet Autonomous Region (《西藏自治區新型電力系統建設實施方案》), and continued to promote the preparation of the Medium and Long Term Plan for Building a National Clean Energy Base in Tibet (2022-2035) (《西藏建設國家清潔能源基地中長期規劃(2022—2035年)》) and the Guiding Opinions for Building a Demonstration Area for Clean and Renewable Energy Utilization in the Tibet Autonomous Region (《西藏自治區建設清潔可再生能源利用示範區指導意見》).

Participating in major infrastructure construction. The Company has built and continued to build hydropower, roads, new energy, power transmission and transformation projects in Tibet, which has promoted the local economic and social development. In 2023, the Company added 6 new construction projects, all of which performed well and met the owners' requirements in terms of progress, quality and safety. The Company steadily promoted investment and construction of new energy integration demonstration projects based on the goal of building national clean energy bases. In 2023, the Company established Gangba County Zhongnan Power New Energy Co., Ltd. (崗巴縣中南電力新能源有限公司) in Tibet, and invested in the integrated project of Animal Husbandry-photovoltaic Complementary Phase I 50MW Photovoltaic Energy Storage Power Station in Shigatse, with a total investment of approximately RMB327 million. After the completion of the project, the local electricity demand will be further guaranteed.

Supporting the construction and development of border regions. The Company participated in the Tibet border power supply project and the engineering general design of national border-adjointing villages, and conducted technical research on the whole process of project establishment, design, review, material supply and project implementation of the 110KV and below power transmission and transformation project in the border regions, and made every effort to overcome the difficulties of the three-dimensional border control supporting power construction project. In addition, we also participated in the survey and design of 10kV and 35kV distribution network lines in the national border-adjointing villages of Nakchu, Shigatse and Ali in Tibet, to fully support the construction and development of border regions.

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Case: Serving infrastructure construction in Xinjiang

China Energy has assumed important responsibilities as a central enterprise, fully utilised professional advantages, and has constructed a number of key infrastructure projects to support Xinjiang's economic and social development of high quality.

Xinjiang Dashixia Water Conservancy Hub Project. In August 2023, the underwater structure of the dam power plant of the project was fully capped. After the completion of the project, it plays an important role in ensuring the green vitality of populus euphratica forests on both sides of the main stream of the Tarim River, and it also can alleviate the spring drought of over 8 million acres of farmland, improve the flood control capacity of the Aksu River Basin, and undertake the task of power peak regulation in the four prefectures of southern Xinjiang.

Xinjiang Shihezi 750 kV Substation Project. The project completed power transmission in October 2023 and was put into operation one year ahead of schedule. The project is one of the first batch of 750 kV HGIS substations in China. After the completion of the project, it can provide 750 kV main grid support for the Shihezi power grid, which will make the development plan of the main power grid in Xinjiang more reasonable, promote the further consumption of new energy in Xinjiang, and improve the utilization rate of new energy.

Xinjiang Jiashi County Photovoltaic Project. The project has been grid-connected and generated power with the photovoltaic full capacity of 600,000 kilowatts in Jiashi County, Tarim Oilfield, Xinjiang. It can reduce the carbon dioxide emissions, sulfur dioxide emissions and nitrogen oxides by approximately 320,000 tonnes, 70.53 tonnes and 79.35 tonnes, respectively, and realize clean energy utilization of approximately 134,600 tonnes of standard coal, which will accelerate the green and low-carbon transformation of Tarim Oilfield.

Xinjiang Altai Energy Storage Power Station. The Xinjiang Altai Energy Storage Power Station has been grid-connected, which is the largest energy storage project in Altay region. After the completion and operation of the project, it will effectively play a supporting role for the Xinjiang power grid, such as peak and frequency regulation, and promote the deep integration of regional energy storage, new energy and load, which is of great significance for assisting the upgrading of green energy industry in northern Xinjiang, improving the "wind resistance" ability of new energy and creating a multi-energy complementary gigawatt clean energy highland, as well as the continuous transmission of Xinjiang's "green electricity" along the Silk Road Economic Belt.

ENHANCEMENT OF PEOPLE’S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

5.5 BUILDING HAPPY COMMUNITIES

China Energy actively engaged in social welfare, participated in disaster relief, assisted in regional construction, and jointly built happy communities. In 2023, China Energy externally donated a total of RMB35.954 million in the name of the enterprise. External donations are mainly used to provide relief to socially disadvantaged groups, and support social public welfare undertakings and other social public welfare undertakings. The Company actively participated in social emergency rescue, actively undertook the rescue and disaster relief tasks of national ministries and commissions and local governments, and has received full recognition from the Party Central Committee and the State Council.

Case: Actively accepting the challenge of extraordinary rainstorm flood disaster in the Beijing-Tianjin-Hebei region

Affected by Typhoon Doksuri, the Beijing-Tianjin-Hebei region was hit by extreme rainfall, and the Haihe River Basin experienced catastrophic drainage basin flood. China Energy responded quickly to the flood and rose to the challenge. The Company deployed 76 technical personnel from Tianjin Electric Power Construction, Northeast Power Third Company and Energy China Road & Bridge to form a standing emergency rescue force, equipped with emergency engineering machinery, water pumps, life jackets and other emergency supplies and equipment, and completed the reinforcement of dams in the Jinghai area of the Daqing River in Tianjin and danger removal of electric power projects, so as to fully participate in the flood control and emergency response. The Company also organized personnel to carry out “disaster delivery (灾急送)”, providing urgently needed supplies to the affected people.

In the face of the soaring water level of rivers and lakes in Mentougou District of Beijing with multiple dangerous situations, China Energy actively undertook and successfully completed the rescue and cleaning task of the main river channel in Mentougou section of the Yongding River with the fastest response speed, the greatest effort, the highest implementation standards and the maximum efficiency, and assisted Beijing’s post disaster reconstruction work with practical actions.



ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Case: Fulfilling the responsibilities of central enterprise in the 6.2 magnitude earthquake in Jishishan, Gansu Province

After the 6.2 magnitude earthquake occurred in Jishishan, Linxia, Gansu, China Energy quickly responded by actively contacting national ministries and commissions and the local government. The Company immediately deployed rescue teams from the northwest regional headquarters of China Energy, Gezhouba Group, Northwest Institute, Gansu Institute, Gansu Company, Tianjin Electric Power Construction. The Company invested 141 rescue personnel and more than 31 units (sets) of equipment, fought for 17 days and nights, repaired the infrastructure in the affected area, urgently deployed emergency relief supplies, and purchased rescue supplies of RMB1.64 million and delivered them to the affected areas. The Company also raised a donation of RMB80,680 and won unanimous praise from the cadres and masses in the affected areas. The Gansu Provincial Party Committee, Provincial Government and Emergency Management Department sent letters of appreciation.

Case: Gezhouba Yichang Base successfully completed safe reconstruction of shantytowns

China Energy Gezhouba Comprehensive Management Center firmly adhered to the people-centered development concept, opened up guarantee channels, provided meticulous services, and cared for disadvantaged groups. In 2023, the Company fully realised the safe reconstruction and resettlement of 109 tube-shaped buildings in Yichang Base, which conformed to city development, eliminated safety hazards, comprehensively improved living environment of Yichang Base, enhanced the quality and taste of the city, and was widely praised and highly recognized by employees and all sectors of society. The Company has received more than 240 pennants and letters of thanks from the public, realising tripartite win-win situation for the people, enterprises and government. Since then, Gezhouba Yichang Base bid farewell to the dilapidated housing and shantytowns, and opened a new chapter of development.



The staff visited Aunt Zhu who had moved to a new house
(the photo on the wall shows Aunt Zhu and her relatives in front of the old house)

ENHANCEMENT OF PEOPLE’S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Case: “Thrilling Asian Games, Being A Volunteer (精彩亞運，志願你我)” volunteer service activity

China Energy CPECC Zhejiang Institute actively responded to the call for “low-carbon Asian Games” and “smoke-free Asian Games” by carrying out various forms of volunteer service activities. In August 2023, 45 young volunteers from the volunteer service team of China Energy Zhejiang Institute went to Qianjiang Century Park to carry out the “Thrilling Asian Games, Being A Volunteer (精彩亞運，志願你我)” volunteer service activity, which fully demonstrated the volunteer spirit of “dedication, friendship, mutual assistance and progress”.



Case: Eliminating electricity safety hazards and carrying out campus electricity science popularization

Haiga Primary School is located in Haiga Village, a minority village on the ridge of Guizhou, with an altitude of 2,900.6 meters. It is known as the “highest school” and “Haiga above the clouds” in Guizhou. In 2023, the aging power lines in the school buildings of Haiga Primary School experienced tripping and power outages, and could not guarantee the daily heating and electricity supply of the school. The Hunan Thermal Power Project Department of China Energy dispatched Party members and League member volunteers to renovate the school’s power lines, and timely eliminated potential safety hazards in school electricity use. In order to further popularize relevant electricity knowledge, the Hunan Thermal Power Project Department of China Energy has been conducting electricity science popularization activities in Haiga Primary School for a long time, and has organized more than 100 science experiment courses with the participation of more than 600 students, which is well recognised and praised by local teachers and students.



ENHANCEMENT OF PEOPLE’S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

5.6 DEEPENING OVERSEAS RESPONSIBILITIES

Adhering to the concept of a community with a shared future for mankind, and based on the advantages of main businesses, China Energy has made efforts to improve the lives of local people and inject vitality into the development of the countries where the projects are located. The Company continuously empowered education and employment in such countries, actively participated in local poverty alleviation, traffic rescue, environmental protection and other actions, strived to improve the lives of local people, continuously improved the ability to fulfill overseas social responsibilities, and created a Chinese friendship business card.

Case: Carrying out “Luban Workshop” Talent Training and Employment Empowerment Plan – Uzbekistan

As the vice chairman unit of the Uzbekistan Chinese Enterprise Chamber of Commerce, China Energy continuously deepened industrial cooperation between China and Uzbekistan, and carried out the “Luban Workshop” Talent Training and Employment Empowerment Plan, spreading the positive energy of “China Energy”. By the end of 2023, the Company conducted more than 20 centralized training sessions and more than 80 large-scale training sessions, benefiting over 4,000 local young students and employees.



Project personnel popularized electricity knowledge to local youth

Case: University Student Assistance Project – Vietnam

China Energy Investment Corporation Vietnam Hai Duong Company implemented the “Vietnamese University Student Assistance Project” in Vietnam, relying on the “Dream Building in Silk Road (築夢絲路)” Youth Development Plan. The project adopted the mode of school-enterprise cooperation to jointly cultivate young talents in the Vietnam’s power industry through scholarship funding, internships and research, and employment priority. Besides, the project also signed an education aid agreement with Red Star University, pursuant to which the Company intended to donate funds to Red Star University in two batches to support 100 impoverished college students majoring in electricity and related fields.



Teachers and students of Red Star University visited the main plant of China Energy Vietnam Hai Duong Power Plant

ENHANCEMENT OF PEOPLE'S WELL-BEING THROUGH A PEOPLE-ORIENTED APPROACH

Case: Consolidating China-Pakistan Friendship through local projects – Pakistan

China Energy Gezhoubu No. 3 Company actively participated in the construction of nine benefiting people projects, including the flagship projects of the China-Pakistan Economic Corridor, i.e. the Pakistan NJ Hydropower Station and SK Hydropower Station, and etc. It organised young volunteers to cultivate, guide and educate professional skills for Pakistani workers, conducted volunteer service activities in poor local schools, donated stationeries to local students, organised tree planting activities along the Kunhar Riverside, and contributed to the rescue of local accidents and road repairs, consolidating the friendship between China and Pakistan through practical actions.



Localised volunteer service activity in Pakistan



Tree Planting Day volunteer service activity with local government in Pakistan



Site of the donation activity for impoverished primary schools

PROSPECTS



PROSPECTS

Standing at a new starting point and facing a new future, we will unite more closely around the Party Central Committee with Comrade Xi Jinping as the core, deeply implement the spirit of the 20th National Congress of the CPC, conscientiously implement the deployment requirements of the SASAC of the State Council, insist on and strengthen the overall leadership of the Party, closely focus on enhancing core functions and improving core competitiveness, and systematically practice the core development concept of “innovation, green, digital intelligence and integration”. We will accelerate the “four transformations”, i.e. innovation-driven transformation, green and low carbon transformation, digital intelligence transformation, sharing and integration transformation, and comprehensively enhance the “five values”, i.e. added value, functional value, economic added value, proportion of revenue and added value of strategic emerging industries, and brand value. With the courage to stand up to the tide and the pursuit of first-class ambition, we will be the main force in implementing the new strategy of energy security and green and low-carbon development, the forerunner in promoting regional coordinated development and building a modern comprehensive transportation system, the pacesetter in promoting the joint construction of the “Belt and Road”, and the demonstrator in promoting common prosperity and fulfilling social responsibilities, so as to make new and greater contributions to comprehensive promotion of Chinese-style modernisation and the construction of a community with a shared future for mankind.

APPENDIX

ESG INDEX

Aspects	Contents	Disclosure location
A1 Emissions	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	P26, 28
	A1.1 The types of emissions and respective emissions data.	P28-33
	A1.2 Direct (Scope I) and energy indirect (Scope II) Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P32-33
	A1.3 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P32-33
	A1.4 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P32-33
	A1.5 Description of emission goals formulated and steps to achieve these goals.	P21, 27-31
	A1.6 Description of how hazardous and non-hazardous wastes are handled, reduction initiatives formulated and steps taken to achieve these initiatives.	P27-31

APPENDIX

Aspects	Contents	Disclosure location
A2 Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials.	P33-34
	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	P36
	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P36
	A2.3 Description of energy use efficiency initiatives formulated and steps taken to achieve these initiatives.	P27, 33-35
	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives formulated and steps taken to achieve these initiatives.	P27, 33-35
	A2.5 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	N/A
A3 Environment and Natural Resources	General Disclosure Policies on minimising the issuer's significant impact on the environment and natural resources.	P37
	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P37
A4 Climate Change	General Disclosure Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	P19-21
	A4.1 Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	P19-21
B1 Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	P53
	B1.1 Total workforce by gender, employment type (full-time or part time), age group and geographical region.	P54-55
	B1.2 Employee turnover rate by gender, age group and geographical region.	No statistical mechanism has been established and will be disclosed in the future

APPENDIX

Aspects	Contents	Disclosure location
B2 Health and safety	General Disclosure	P57-59
	Information on:	
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	
	B2.1 Number and rate of work-related fatalities in the past three years (including the reporting year).	P60
	B2.2 Lost days due to work injury.	P60
	B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored.	P57-59
B3 Development and Training	General Disclosure	P55-56
	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	
	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P56-57
	B3.2 The average training hours completed per employee by gender and employee category.	P56-57
B4 Labour Standards	General Disclosure	P53
	Information on:	
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	
	B4.1 Description of measures to review employment practices to avoid child and forced labour.	P53
	B4.2 Description of steps taken to eliminate irregularities when discovered.	P53
B5 Supply Chain Management	General Disclosure	P47-48
	Policies on managing environmental and social risks of the supply chain.	
	B5.1 Number of suppliers by geographical region.	P48
	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	P47-48
	B5.3 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	P47-48
	B5.4 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	P47-48

APPENDIX

Aspects	Contents	Disclosure location
B6 Product Responsibility	General Disclosure	P39, 41-42, 52
	Information on:	
	(a) the policies; and	
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	
	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	N/A
	B6.2 Number of products and service related complaints received and how they are dealt with.	P52
B7 Anti-corruption	B6.3 Description of practices relating to observing and protecting intellectual property rights.	P46
	B6.4 Description of quality assurance process and recall procedures.	N/A
	B6.5 Description of consumer data protection and privacy policies, how they are implemented and monitored.	P52
	General Disclosure	P17-18
	Information on:	
(a) the policies; and		
(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering		
B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	P18	
B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	P17-18	
B7.3 Description of anti-corruption training provided to directors and staff.	P18	
B8 Community Investment	General Disclosure	P62-70
	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	
	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	P62-70
B8.2 Resources contributed (e.g. money or time) to the focus area.	P62-70	



Head office : Building 1, No. 26A, West Dawang Road, Chaoyang District, Beijing, the PRC
Tel: +86(10)59098818 Fax: +86(10)59098711
Postal code: 100022 Company' s Website: www.ceec.net.cn
E-mail: zgnj3996@ceec.net.cn