



2022 Corporate Social Responsibility Report

株洲中车时代电气股份有限公司
ZHUZHOU CRRC TIMES ELECTRIC CO., LTD.



(a joint stock company incorporated in the People's
Republic of China with limited liability)
Stock Code: 688187 (A Share)
3898 (H Share)

About the Report

Corporate Social Responsibility Report 2022 of Zhuzhou CRRC Times Electric Co., Ltd. (hereinafter referred to as “this Report”) is a true reflection of Zhuzhou CRRC Times Electric Co., Ltd. in terms of its active fulfillment of economic, environmental and social responsibilities as well as its full implementation of the sustainability strategy. This Report discloses the corporate social responsibility practices and performance of the Company in 2022 to all stakeholders, in hope of strengthening its communication and exchange with stakeholders for closer cooperation and joint efforts towards sustainable development.

Reporting Period

This Report describes events of the Company during the period from January 1, 2022 to December 31, 2022 and part of the contents may go beyond the above-mentioned period in order to enhance data comparability and content continuity.

Reporting Scope

This Report covers the Company's headquarters and share-holding subsidiaries and excludes joint stock companies.

Reference Terms

For better expression and readability, Zhuzhou CRRC Times Electric Co., Ltd. is referred to as “TEC”, “the Company/it” or “we/us/our” in this Report.

Data Sources

All data herein are collected from the Company's official documents and statistical reports, and data quoted herein are the final statistical ones. This Report uses the same calculation methods as the previous reports.

Preparation Basis

This Report is prepared with reference to *the Environmental, Social and Governance Reporting Guide* issued by The Stock Exchange of Hong Kong Limited (SEHK), *Guidelines on Listed Companies' Environmental Information Disclosure* issued by Shanghai Stock Exchange (SSE), *GRI Sustainability Reporting Standards* (GRI Standards) issued by the Global Sustainability Standards Board (GSSB), *Guidelines on the Social Responsibility for Industries of China* (GSRI-China) and *The Ten Principles* of the UN Global Compact.

Reliability Assurance

No fictitious record, misleading statement, or material omission is included in this Report.

Report Access

This Report is published in Chinese (including simplified and traditional Chinese) and English versions. For more information about our social responsibility, you can download and read the PDF version of this Report from our official website (www.tec.crrcic.cc). In case of any discrepancies between the Chinese and English versions, the Chinese version shall prevail.

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Speech By The General Manager

Looking back at 2022, changes unseen in a century unfolded at a faster pace: the Ukrainian crisis had a spill-over effect, and the global industrial and supply chains were disrupted. Confronted with the complex external environment, the Company responded calmly. Focusing on serving national strategies, the Company improved its quality, fulfilled its social responsibilities, and successfully completed its annual target. The year of 2022 was truly momentous and remarkable for the Company.

In 2022, we pursued pragmatic actions on the path of high-quality development. In sync with the pulse of the era of high-quality development, we deeply implemented the new development concept, and efficiently coordinated reform and innovation and business development. In face of challenges, we worked hard, making important progress in reform and innovation, and achieved a new high in operating performance. In the past year, we strove to lead the way in self-reliance and self-improvement in science and technology. Firmly adhering to an innovation-driven and technology-led strategy, we proactively shouldered the responsibility of national independent innovation, vigorously tackled problems in core technological research that hindered the country's development, and continuously enhanced the hard power of ensuring self-reliance in major areas. We also took the lead and shouldered important responsibilities of promoting green development. By giving full play of our advantages in environmental protection technology in the industry chains covering the power semiconductor, sensor, electric drive system for passenger vehicle, and new energy power generation equipment, we overcame unfavorable factors such as the shortages in chips and raw materials, and power rationing, and worked hard to ensure supply and delivery, which made great contributions to promoting the implementation of China's 30-60 Decarbonization Goal and industrial development. We continued to practice a people-oriented approach. Adhering to the values of "honesty, respect, innovation, and accomplishment", we were committed to creating a diversified development platform for employees and enterprises to achieve mutual benefit. We optimized and improved the incentive systems and office & living environments for our employees. Besides, we increased care for the disadvantaged and vulnerable groups, and carried out social public welfare activities such as rural revitalization and supporting poverty-stricken students.

Riding the wave of new opportunities, we will better pool strength and start a new journey. 2023 is the first year when we fully implement the guiding principles of the 20th National Congress of the CPC. Adhering to the mission of "serving the country through industrial development" and "boosting the country's strength with equipment", we will keep in mind "the country's most fundamental interests" and take high-quality development as our primary task as always. In doing so, we will enhance our core competitiveness, pay attention to the essence of enterprise management, and accelerate the pace of industrial development. To continuously integrate social responsibilities into our bloodline, we will fully fulfill our role as a central state-owned enterprise, and live up to the expectations of all sectors and times with better operating performance.

Executive Director and General Manager of Zhuzhou CRRC Times Electric Co., Ltd.

Shang Jing

About Us



Company Profile

Zhuzhou CRRC Times Electric Co., Ltd. (formerly known as Zhuzhou CSR Times Electric Co., Ltd.) was established jointly by five organizations, including CRRC Zhuzhou Institute Co., Ltd. (formerly known as CSR Zhuzhou Institute Co., Ltd.) ("CRRC Zhuzhou Institute") on September 26, 2005. It was successfully listed on SEHK (stock code: 03898.hk) and the SSE STAR Market (stock code: 688187), on December 20, 2006 and September 7, 2021 respectively.

The Company follows the high-speed traction management model featured by "higher reliability and safety + higher efficiency and effectiveness", and adheres to the "concentric and diversified development" strategy. Focusing on technology and market, it has established a complete industrial chain comprising "basic component + device and system + complete machine and engineering". Its industries cover multiple sectors, such as rail transit, power generation from new energy, electric & electrical component, electric drive system for vehicles, industrial electrical appliance and marine equipment. It has established presence in over 20 countries and regions and built good cooperation relationships with many well-known enterprises at home and abroad, so it have a broad development space and prospect.

As a pioneer and leader in China's electrified railway equipment industry for more than 60 years, the Company shouldered the mission and responsibility of revitalizing the high-end equipment industry. Committed to independent R&D and industrialization of traction transmission and control systems, which are praised as the "heart" and "brain" of trains, the Company continues to lead the domestic electric system market for rail transit. Developed from experience gained over the years, it has become a high-tech enterprise with independent intellectual property rights in fields such as communication and information technology, onboard control and diagnostic technology, converter technology, train control technology, high-power semiconductor device technology, measurement and control technology, electrical control technology for engineering machinery, and deep-sea equipment technology. Besides, it has led the development of multiple international standards, and won more than 100 awards for scientific and technological achievements, such as the China Patent Gold Award and the second prize of State Scientific and Technological Progress Award. Moreover, it has established multiple national technology innovation and engineering research centers, forming a high-end technical talent team led by academicians.

The Company has established multiple overseas companies and R&D centers, and its products have been exported in large quantities to more than 20 countries and regions such as the United States, Australia, South Africa, Argentina, and Turkey. As a core high-end equipment enterprise that fully participates in international competition, and implements the Belt and Road Initiative and "Made in China 2025" strategy, it has established a complete supply chain system, manufacturing system, marketing network, and after-sales service network at home and abroad, and supported China's high-speed rail "going global".



Corporate Culture

Mission

Connecting the world to benefit humanity

Vision

Becoming a world's leading multinational conglomerate with rolling stock equipment as its core business

Core value

Going the right path with the righteous mind and doing good deeds with good intentions

Organizational climate

Positive & harmonious, candid & honest, open & inclusive

Work style

Strong commitment, sense of timeliness and pursuit of excellence

Enterprise spirit

Honesty, respect, innovation, and accomplishment



Special Report on Responsibility

Creating the Business Card of TEC for Energy by Responding to China's 30·60 Decarbonization Goal

To responding to China's 30·60 Decarbonization Goal and guide green technology innovation, TEC worked to balance economic development with green transformation. As a global leader in the rail transit industry and a provider of "grid-connected wind, photovoltaic and stored energy" system solutions, TEC was based on the transportation and energy fields and actively implemented the dual-carbon strategy, contributing to the safe and convenient travel and low-carbon, green life of people.

Time Electric photovoltaic industry to add "double honor"

On March 1, 2023, the 7th China Photovoltaic Industry Forum was held in Beijing under the theme of "New energy, New system and new Ecology". The forum focused on hot topics such as new power system, new energy base, county photovoltaic, distributed photovoltaic, optical storage integration, etc., exchanged business models and technological innovation of the industry, helped realize new energy and new ecology, and promoted the integrated development of the industry end. In this forum, Time Electric delivered a speech entitled "Intelligent centralized photovoltaic solutions continue to promote the development of industry technology", introduced the company's cutting-edge technology in centralized inverter, elaborated the company's power electronics technology in the field of light storage wind hydrogen and other new energy applications.

At the meeting, Time Electric was highly recognized by the jury for its technical strength in the photovoltaic industry, and won two awards of "Top Ten Brands of photovoltaic Inverter in 2022" and "National Brand of the Year", winning the recognition of Time Electric's product application achievements and brand power in the photovoltaic field.



TEC Industrial Base of Zero Carbon Intelligent Equipment Settles in Many Places

On March 17, 2022, TEC Qujing Company held a plaque unveiling ceremony, marking the official settlement of TEC's first new energy plant in the "world's photovoltaic capital". On July 28, 2022, TEC Wuhai Company held a plaque unveiling ceremony in Wuhai City, Inner Mongolia Autonomous Region, marking the official settlement of TEC Industrial Base of Zero Carbon Intelligent Equipment in Wuhai. After the project is completed, it will achieve an annual production capacity of 5GW from zero-carbon equipment such as equipment of "Wind Photovoltaic Hydrogen Storage", helping Wuhai become the clean energy capital of the west China. TEC Industrial Base of Zero Carbon Intelligent Equipment settles in many places step by step, aiming to help local industrial development with a whole-industry-chain thinking. It will increase scientific and technological innovation efforts, continue to invest in new energy equipment such as photovoltaic inverters, wind power converters, hydrogen production sources, and energy storage systems. By connecting multiple links such as "research, production, sales, and service", it will create an industrial base of zero-carbon intelligent equipment that integrates marketing center, "zero-carbon" technology research and innovation center, "zero-carbon" full life cycle service center, and "zero-carbon" equipment manufacturing center. Using its own advantageous products, it will create new momentum and extend added value for the local new energy industry chain.

In the future, TEC will adhere to the green low-carbon path, and bring new perspectives, technologies, ideas, and models to solve the bottlenecks of transformation and development, contributing to vigorous development of the dual-carbon industries with its strength.



Pursuing Excellent Quality to Create Long-term Value

TEC further improved its modern enterprise system and corporate governance structure, and created a good atmosphere of integrity and entrepreneurship to escort its high-quality development. It regarded product quality as its foundation of development. It also focused on products and innovation and enhanced customer value with high-quality services.



Making Steady Progress Based on Corporate Governance

The Company improved its management mechanism, continued to improve its corporate governance capabilities, and solidly promoted anti-corruption to improve the quality of its business development and boost its steady development.



Standardization of corporate governance

The Company continuously improved the corporate governance structure in strict accordance with relevant national laws and regulations, the *Basic Rules for Enterprise Internal Control* and its *Articles of Association*. In terms of decision-making, execution and supervision, the responsibilities and authorities of its General Meeting of Shareholders, the Board of Directors, the Board of Supervisors and the Management were clearly defined, mutually balanced and well operated. It had science-based and reasonable setting of organizations and allocation of powers and responsibilities, which continuously promoted the modernization of governance capacity and system.

Governance System

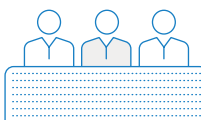
Board of Directors

The Company's Board of Directors (the "Board") is comprised of 11 directors, each with different industry backgrounds and expertise. The Board defines clear responsibilities, and its convening procedure complies with the provisions of the *Articles of Association* and other relevant laws and regulations. It formulates the Company's development strategy and monitors the implementation of management and finance decisions within the terms of reference as required in the *Articles of Association* and in accordance with the procedures set out in the *Rules of Procedures of the Board*, and takes long-term performance and returns as its priority. Five specialized committees, namely Strategy Committee, Audit Committee, Risk Management Committee, Nomination Committee and Remuneration Committee are established under the Board which further improve the Company's governance structure.

The Company has 6 independent non-executive directors, representing half of the total number of directors. In the past year, they focused on improving corporate governance and major decisions of the Company, expressed fair and objective advices on major matters and connected transactions of the Company, and employed science-based approaches in the decision-making of the Board to safeguard the interests of the Company and minority shareholders.

9

The Company held meetings of the Board of Directors



Board of Supervisors

The Board of Supervisors is comprised of 4 supervisors, including 1 independent supervisor, 1 shareholder representative supervisor and 2 staff representative supervisors. In particular, staff representative supervisors shall be recommended by the workers' congress. The Board of Supervisors exercises supervision rights independently according to the law. It supervises the legality and compliance of duties performed by directors and senior managers of the Company to safeguard the legal rights and interests of shareholders, the Company and its employees.

7

The Company held meetings of the Board of Supervisors

The Management

Senior management of the Company is responsible for executing strategic decisions of the Board and managing its daily operations affairs while the Board is responsible for daily supervision and annual assessment of the management. The Company clearly defines the responsibilities of Chairman of the Board and General Manager, ensuring the independence of decisions from the Board and the daily management and operation of the management. The Company sets annual goals for subordinate units by dividing its strategic objectives for different years and at all levels and establishes an objective-based, responsibility-based evaluation system for its senior managers, and managers of its subsidiaries, business divisions, centers and functional departments, forming a performance-linked incentive and disciplinary mechanism. Assessment criteria and methodology are determined in the form of statement of annual target management responsibility and the performance remuneration of the management is directly linked with results of appraisal.

Information Disclosure

In strict compliance with the relevant national laws and regulations as well as the requirements of the China Securities Regulatory Commission, SSE and SEHK, the Company issued regular reports to disclose relevant financial and non-financial information in a timely, accurate and complete manner to ensure that investors and stakeholders can keep abreast of the Company's operation and management. Besides, the Company established special departments, positions, mailbox and telephones to enhance communication with its investors. It also strictly fulfilled the confidentiality obligations in information disclosure. TEC had no significant premature disclosure or misstatement of information in 2022.

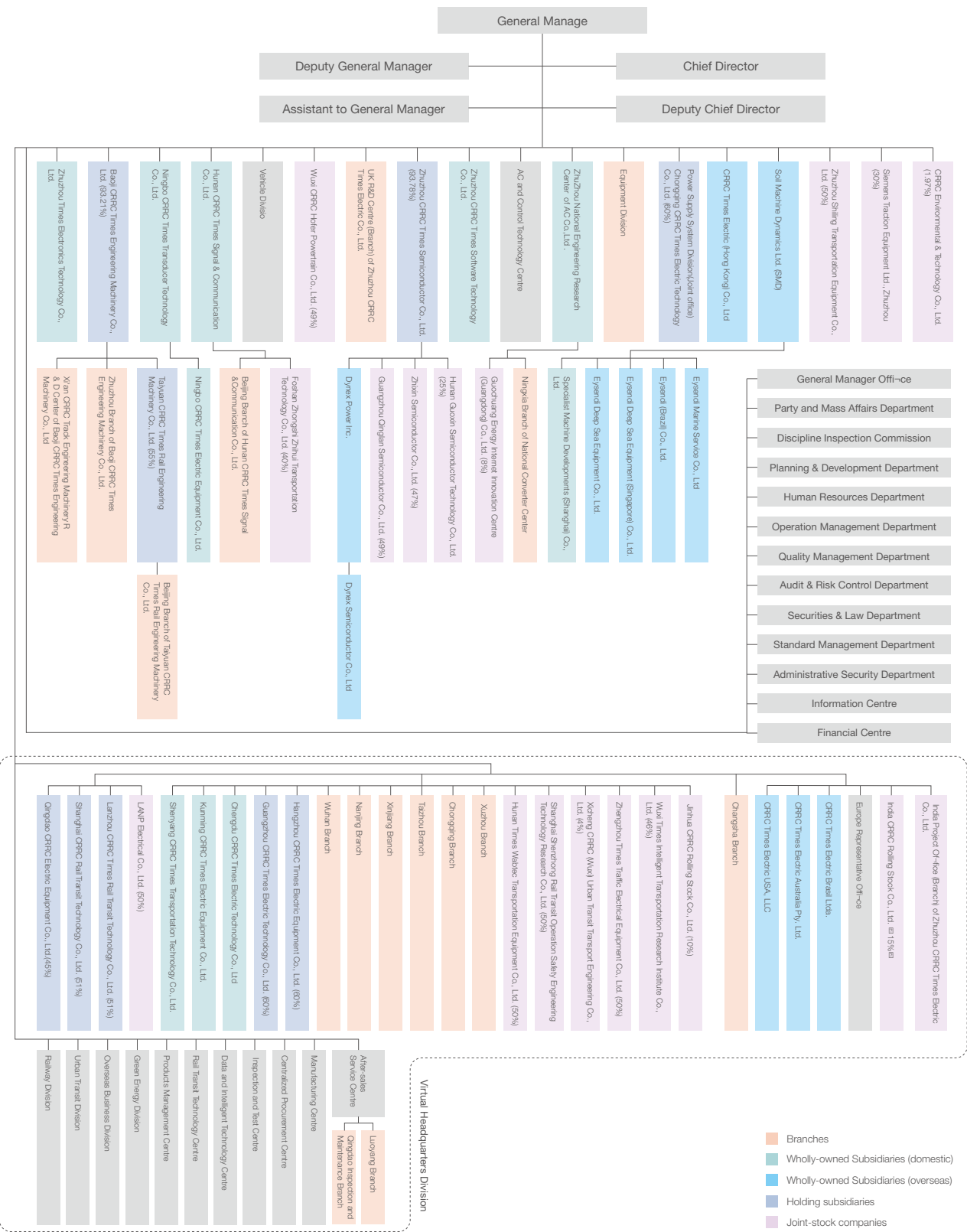
ESG statement of the Board

The Board is fully aware of the importance of good corporate governance and risk management processes, including management of ESG matters critical to the Company's sustainable development. The Company hereby promises that it will strictly abide by the requirements of stock exchanges where it is listed on the disclosure of environmental, social and governance (ESG) information by issuing ESG reports.

The Board supervises TEC's fulfillment of its ESG commitments. TEC released ESG reports regularly to disclose its ESG information in compliance with the latest requirements in the *Guidelines on Listed Companies' Environmental Information Disclosure* issued by SSE and the *Environmental, Social and Governance Reporting Guide* issued by SEHK, national laws and regulations on ESG issues, and relevant norms stipulated by China Securities Regulatory Commission and HKEX, thus ensuring that investors and stakeholders were well-informed of its operation and management. Based on external ESG requirements and the development strategy of the Company, the Board regularly reviewed material ESG topics, and discussed and identified ESG risks and opportunities of the Company. The Board regarded the management and improvement of material ESG topics as the strategic focus of the Company's ESG-related work as well as a part of the Company's overall strategy, and monitored the management of such topics and related practices.

In 2023, the Board will further improve ESG risk management, information collection and reporting systems of the Company, and promote the continuous improvement of its ESG management.

Organizational Structure



Risk management and internal control

Risk Management

In order to strengthen the overall risk management and further improve the risk management system, the Company carried out daily work and special actions on risk assessment, risk prevention & control and risk management supervision, so as to improve its risk management ability, promote the realization of its strategic objectives, and effectively guarantee its sustainable and sound development. In 2022, the Company held a series of risk management activities according to the requirements of the 14th Five-Year Plan for risk control and key tasks for annual risk management of CRRC and CRRC Zhuzhou Institute. As for its achievement, the Company won the first prize of the Excellent Projects of Hunan Association for Internal Auditors by virtue of the *Audit Project of Risk Control and Management in the Whole Value Chain of Procurement*.



CRRC for strengthening overseas risk investigation, comprehensively assessed the overseas risks faced by TEC, improved TEC's overseas operation & investment control and risk resistance capacity, and prevented overseas operation risks.

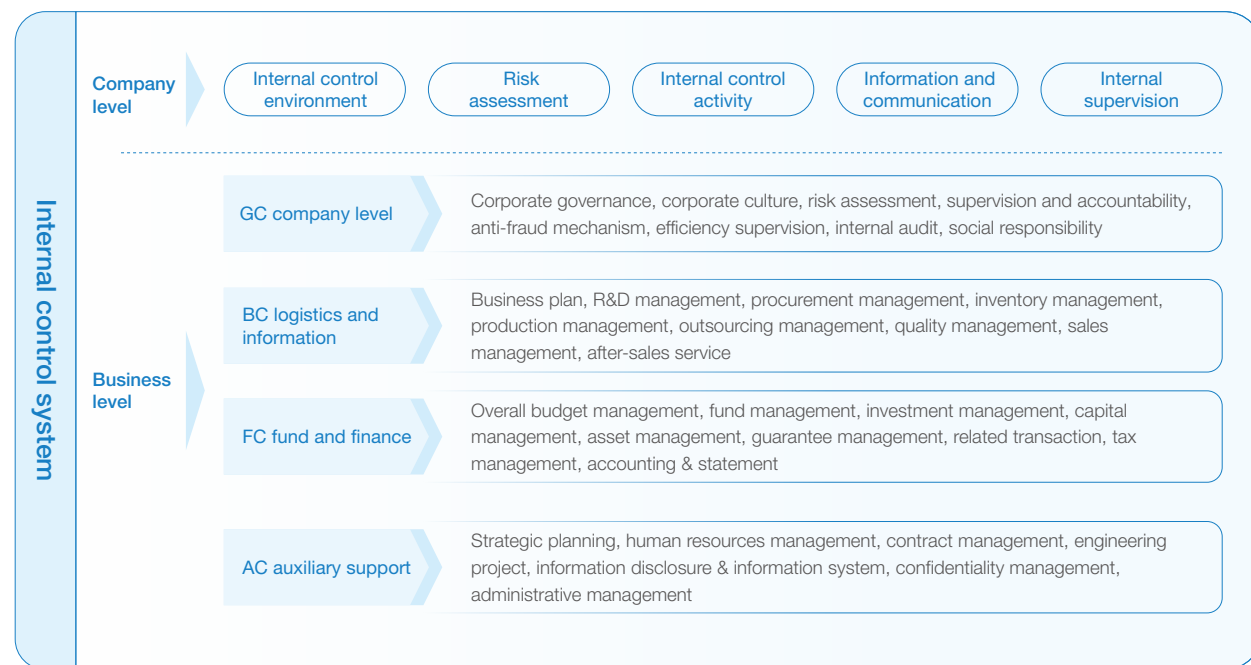
We assessed risks of 26 major M&A and joint venture investment projects, revealed project risks, evaluated risk levels and proposed countermeasures to ensure that major project risks were controllable.

Main measures of risk control of the Company

Internal Control

The Company restructured the internal control system featuring “one system,” “two levels,” “four lines” and “a number of internal control subjects” to meet the needs of its business development. This restructuring synchronized the important elements such as processes and key control points with the external environment changes, industry rules and enterprise internal management changes, and also met the requirements of SEHK and SASAC on internal control.

In 2022, the Company focused on promoting the integration of systems for internal control, risk management, compliance management and accountability for violations, advanced the key tasks of the Three-year Action Plan for the Reform of State-owned Enterprises, and implemented the specific work in the year of strengthening compliance management. It also promoted the implementation of the joint oversight project, specifically linked with audit tasks of the National Audit Office, and organized the annual evaluation on internal control. These measures systematically strengthened the compliance management of internal control, continuously improved the compliance management capacity and level of internal control, and gave full play to the role of compliance management in promoting standardization and preventing risks.



Efforts to fight corruption and uphold integrity

The Company continued to build an oversight system integrating multiple spheres, and comprehensively promoted the system under which officials “don’t dare to, are unable to and have no desire to commit acts of corruption.” It deepened the full and strict governance over the Party, and supervised and organized the annual integrity talks and integrity culture education activities at different levels to build a line of defense of anti-corruption, and foster a sound and clean atmosphere for development.

In 2022, the Company continued to build the integrity culture education system that integrated four dimensions of “position, activity, standard and mechanism”, systematically promoted the education on Party conduct and government integrity, and made great efforts to create an atmosphere of integrity advocating “moral self-cultivation, diligence, and assumption of responsibility”. It continued to improve the whistleblower system with the corruption reporting procedures and implementation methods to encourage employees to report corruption and non-compliant behaviors.

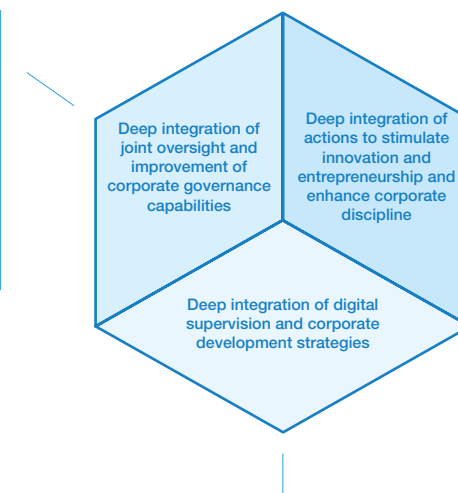
2022

We had more than **100** collective and individual talks with **1,579** professional managers and key employees

We had no corruption lawsuits filed against us or our employees;
We had no violation of laws and regulations on anti-bribery, extortion, fraud and money laundering.

We held **17** lectures with the theme of “disciplinary inspection officials talk about discipline,” involving **1,772** leading officials and personnel in key positions from **23** (Party headquarters/) Party branches of TEC

We carried out special supervision projects such as inspection and rectification, management of “decision-making on major issues, appointment and dismissal of important officials, investment decisions on major projects and the use of large amounts of funds”, tendering and procurement management, selection and appointment of middle managers, travel expense & fund management, so as to drive all kinds of supervisions with strict intra-Party supervision.



We cultivated the innovation and entrepreneurship projects such as the corruption risk prevention and control project of “accurate detection for a strong network of integrity” and “four-dimensional” integrity culture and education system project, and carried out integrity education activities such as “the Integrity Culture Week”, “Families Promote Integrity through Parent-child Reading” and “Disciplinary Inspection Officials Talk About Discipline,” so as to improve the efficiency of corruption risk prevention and control.

We followed the guideline of “Digitalized TEC” to build and implement the assessment system for corruption risk control, continuously optimized the digital supervision platform for official vehicles, and actively explored the path of “digital supervision”.



Case

TEC carried out the activity themed “Families Promote Integrity through Parent-child Reading”

On September 24, 2022, TEC organized the activity themed “Families Promote Integrity through Parent-child Reading”. A total of 14 entries were received in this reading activity. According to the content of the entries, they were divided into three parts, i.e. “Rules of Integrity”, “Book of Integrity” and “Song of Integrity”. Each family expressed its understanding and feelings of integrity with affectionate performances and full emotions. This activity further strengthened the family members’ sense of integrity and self-warning consciousness through family stories of self-discipline and leading by example, effectively played the role of families in promoting integrity, and actively created a good environment for integrity.



Unleashing Vitality from the Source of Innovation

The Company constantly consolidated the foundation of innovation management, increased investment in R&D and innovation, accelerated in-depth R&D and technology accumulation, and provided better process and equipment solutions to effectively improve its comprehensive strength.



Management of technological innovation

Committed to serving technological innovation, the Company focused on the goal of “two creations and one cultivation” and “becoming a world's leading multinational conglomerate”, and centered on its three connotations of “strong core competitiveness”, “high efficiency” and “security guarantee”. It insisted on advancing technological innovation and industry development in parallel, continued to improve the technological innovation system, and built international R&D processes and platforms featured by openness, collaboration and efficiency. Besides, it built three pillars, strengthened five increments and cultivated emerging industries to provide solid guarantee to realize its strategic development objectives.



Adhere to the innovation-driven strategy, strengthen the core technology improvement and industrial security, and achieve technology leadership and quality development



Adhere to open innovation, distribute overseas and remote R&D resources, and use scientific and technological achievements with global advantages



Adhere to concentric diversification, develop new markets and cultivate strategic emerging industries



More investment in product R&D

The Company accelerated breakthroughs in core technologies, developed and designed more products of higher quality that met the needs of society and the market, and comprehensively improved its innovation ability.

Case

Intelligent and low-carbon solution to the permanent magnet variable frequency drive system for central air-conditioning system in data center

Given characteristics of the central air-conditioning system in the data center, such as high energy consumption, large sensible heat load, year-round operation and high safety reliability, Zhuzhou National Engineering Research Center of Converters Co., Ltd. affiliated to TEC tailored a solution for the central air-conditioning industry by using the converter control technology of high-speed railway. In terms of this solution, centrifugal and screw compressors can be efficiently driven, with a voltage grade of 0.4-10kV and a power range of 75-2,500kW. This industrial solution is for permanent magnet variable frequency drive system for central air-conditioning system in the data center, and promotes the green and low-carbon development of machine rooms in the data center. So far, a series of products have been successfully applied to many data centers of China Mobile, China Telecom, China Unicom and Alibaba, and more than 300 sets have been put into operation. These products which are green, energy-saving, efficient, stable and adaptive have been highly recognized by users.



Case

TEC won the Special Achievement Transformation Award of Industrial Internet APP Digital Manufacturing and Management

In December 2022, the Award Ceremony of National Industrial Internet APP and Information Consumption Race and the Industrial Summit of “New Production, New Consumption and New Economy” were successfully held in Zhuzhou City, Hunan Province. The “Enterprise-level Data Center Platform Solution” independently developed by TEC's information center won the “Special Achievement Transformation Award of Industrial Internet APP Digital Manufacturing and Management” for its outstanding application effects and technical strengths. The Enterprise-level Data Center Platform Construction Project of TEC is originated from its “14th Five-Year Plan” for enterprise digital transformation, innovation and upgrading strategy. Its goal is to build data platform products with completely independent intellectual property rights in the rail transit and energy sectors. After two years of R&D, the project has now been put into operation. Through the establishment of the data domain model, the project has connected the business data chain in the core fields of enterprise research, production, supply, sales, service and management, formed an enterprise-level data lake and data management application, and supported the strategic transformation and upgrading of “digitalized TEC”.

2022



1.847 billion RMB
Investment in technological research

10.24 %
Percentage of operating revenue

738
Technological research projects were approved



35
TEC was approved external technology projects, including

15
Projects under the National Key Technologies R&D Program

1
Lead research project

3
Lead research subjects



The first prize of the Science and Technology Progress Award of China Electrotechnical Society



The second prize of Science and Technology Award of China Communications and Transportation Association



The second prize of China Machinery Industry Science and Technology Award



The award of Influential PV Inverter Brand

TEC won





Intellectual property protection

The Company held in-depth management improvement activities such as R&D with digital technologies, refined management and optimization of project management processes. It also carried out R&D project management, R&D layout and collaboration, qualification and result management, external scientific technology reporting management, and intellectual property management. Besides, it revised and improved relevant R&D management procedures and systems, and improved work efficiency and quality to secure orderly daily work and steady advancement of key tasks.

In order to fully safeguard the Company's intellectual property rights, it formulated a series of management regulations and guidance documents, such as the *Management Measures for Intellectual Property*, *Management Measures for Intellectual Property of Research Projects*, *Manual of Intellectual Property Management*, and *Review Measures for Intellectual Property of Scientific Papers*, so as to further standardize its intellectual property management.



Pursuing Excellence in Products

The Company continued to improve the product life-cycle management, and strengthen quality and safety awareness, effectively controlling all links and processes from product design to delivery, and creating high-quality products with an attitude of pursuing excellence.

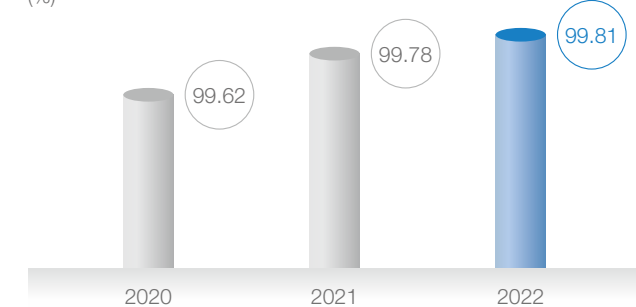


Management of product quality

From the perspectives of customers, prevention and assumption of responsibilities, the Company transformed the “zero defect” concept into actions, and established a complete quality assurance system, to ensure the quality safety of products throughout their life cycle. In 2022, the one-time passing rate of TEC's products was 99.81%.

One-time passing rate of TEC's products

(%)



99.81 %

In 2022, the one-time passing rate of TEC's products



Standard number	Name of standards	Term of validity	Certification body	Certificate
ISO9001:2015	ISO Quality Management System	2023/12/28	Bureau Veritas	
ISO/TS22163:2017	IRIS Quality Management System	2023/10/28	Bureau Veritas	

Case

TEC provided core equipment for the first overseas order of China's high-speed railway

Jakarta-Bandung High-speed Railway is a landmark project within the framework of the Belt and Road Initiative between China and Indonesia. On November 16, Indonesia local time, Jakarta-Bandung High-speed Railway was successfully put into trial operation.

TEC fully facilitated the Jakarta-Bandung High-speed Railway to adapt to the environment in Indonesia, and provided traction converter, network control system, battery charger, external power box, real-time axle temperature detection system, water supply and sanitation system, wireless transmission device (WTD) and other products for the bullet train. Given the special application environment featuring high temperature, high humidity and high salt fog in the Jakarta-Bandung line of Indonesia, the Company formulated a series of optimization measures to provide "tailor-made" solutions. In order to adapt to the local demand for operation capacity on long and large ramps in Indonesia, ground tests and verifications of 9 solutions were carried out for 30% of large ramps, and the innovative setting of "high acceleration mode" significantly improved the capacity of the train passing the ramps, so that the train can start safely.



Management of product safety

The Company always adhered to the technology safety policies of "complying with railway safety standards to establish product safety concepts; understanding product safety effectiveness to improve safety rules and norms; producing safe and reliable products to ensure train traffic safety". It applied safety standards throughout the whole life cycle of products, and eliminated the occurrence of product quality & safety problems. In 2022, the Company did not violate any laws and regulations related to the health and safety of products and services provided.

In addition, the Company attached great importance to customer information security and privacy, continuously improved its information security management mechanism and strengthened customer information protection in strict accordance with the *Civil Code of the People's Republic of China*, the *Personal Information Protection Law of the People's Republic of China* and other relevant laws and regulations. In 2022, the Company did not disclose any customer privacy information.

Case

Two authoritative organizations issued "dual certification" for power safety of TEC's electric drive products

On July 28, 2022, tPower-DM3027 motor controller for new energy vehicles developed by TEC obtained the first "dual" certification for power safety of motor controllers in the industry. They are power safety certificates issued by the authoritative certification authority after the motor controller for new energy vehicles developed by TEC passed the functional safety product certification in 2020. This also means that TEC's electric drive products have reached the leading power safety level in the industry.

Winning Trust with Quality Service

The Company always focused on customer needs and strived for customer satisfaction. Through questionnaire surveys, customer visits, telephone inquiries, product promotion meetings and other forms, it collected customer opinions, and promoted the continuous improvement of product and service quality. Supported by these measures, it also met customer needs in a timely manner, enhanced customer value with high-quality services, and effectively won customer trust.



Improvement of customer satisfaction

The Company conducted customer satisfaction surveys from the evaluation indexes such as product brand, product delivery, product quality and service quality, and made targeted improvements.

→ 2022

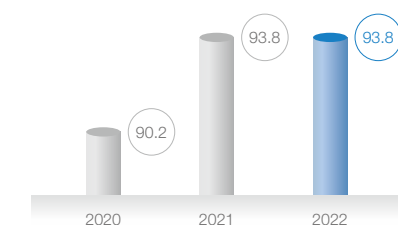
93.83 points

Our overall customer satisfaction index

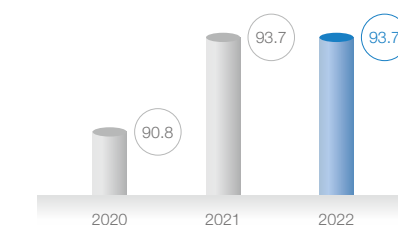
97.2 %

Our customer loyalty

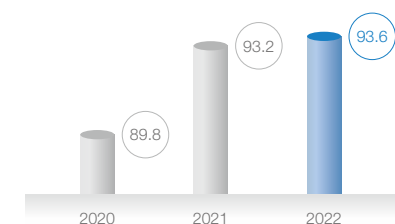
Score of our product brand
(points)



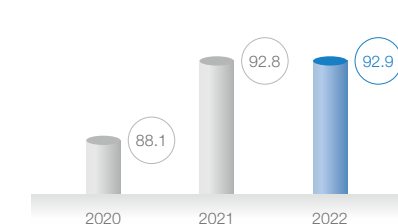
Score of our product delivery
(points)



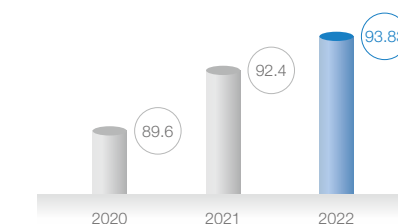
Score of our product quality
(points)



Score of our product service
(points)



Score of our overall indexes
(points)

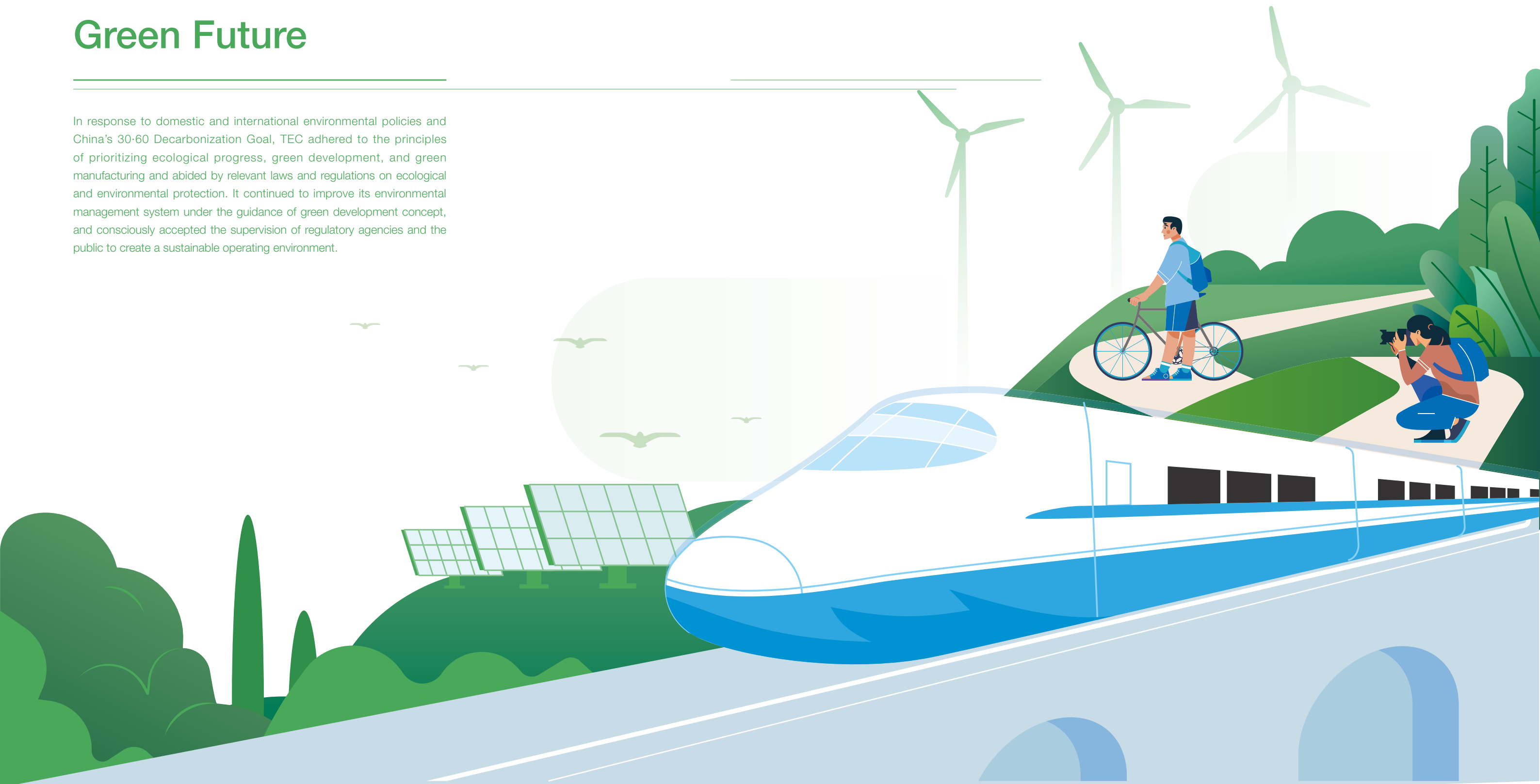


Handling of customer complaints

The Company established a customer complaint handling team led by the Quality Management Department. This team gave prompt response to each customer complaint, conducted in-depth investigation of and analysis on problems, and dealt with problems properly to ensure customer satisfaction.

Protecting Lucid Waters and Lush Mountains to Build a Green Future

In response to domestic and international environmental policies and China's 30·60 Decarbonization Goal, TEC adhered to the principles of prioritizing ecological progress, green development, and green manufacturing and abided by relevant laws and regulations on ecological and environmental protection. It continued to improve its environmental management system under the guidance of green development concept, and consciously accepted the supervision of regulatory agencies and the public to create a sustainable operating environment.



Building Environmental Protection Systems to Respond to Climate Change

Adhering to the EHS policy of “people first, continuous improvement, green & environmental protection, and health & safety”, the Company continued to improve its environmental management system and strengthened its asset lifecycle management. Besides, It promoted the implementation of dual-carbon work, and developed green products, so as to make its contribution to realizing “China’s 30-60 Decarbonization Goal”.



Improvement of environmental protection systems

The Company strictly implemented the environmental protection system and the requirements for emissions of environmental pollutants such as wastewater, waste air, noise, solid waste. To effectively promote environmental protection tasks and the building of a resource-conserving and environmentally-friendly enterprise, it put great efforts to comprehensively standardize environmental management systems and work procedures and improve the environmental management system. It also developed environmental protection management systems and different kinds of management systems, and standardized environmental protection assessments and accountability. In 2022, the Company passed the supervisory audit of the ISO 14001 environmental management system.



R&D of green products

In response to China’s 30-60 Decarbonization Goal, the Company attached importance to the R&D of “green, energy-saving, and efficient” products, and increased resource input. It incorporated the “green” concept into product design, procurement, manufacturing, transportation, application, and recycling. With environmental protection measures, it continued to promote R&D and production of products applied in green, low-carbon fields to make products more compatible with the environment throughout their life cycle. At the same time, it explored the use of green and energy-saving materials and processes, and promoted the development of the entire industry towards the direction of “sustainability”, “resource conservation”, and “environmental friendliness” by offering environmentally friendly products and services. In 2022, the Company launched major scientific research projects related to high-performance railway traction power supply, the electric system of the plateau dual-source power centralized EMU, and the subway CIMRES electromechanical system platform. Among them, the regenerative braking energy utilization device which was developed in the project of high-performance railway traction power supply significantly improved the quality of power supply and the overall energy efficiency. According to on-site measurement, the device can help save an average of 12 MWh of electricity per day. The intelligent power supply system and energy management device which was developed on the subway CIMRES electromechanical system platform has achieved optimal energy scheduling for the subway power supply system, reducing energy consumption of the traction power supply system by more than 5%. It also proposed the algorithm for controlling the flow of the energy management device, resulting in a reduction of more than 90% in the no-load losses between multiple bidirectional inverters.

Adhering to the “Three-simultaneity” requirement for new reconstruction & expansion projects, the Company ensured that environmental protection facilities and construction projects were designed, constructed, and put into use at the same time. During production, operation and management, it abided by national, provincial, municipal governments, as well as ecological departments’ laws, regulations and rules on environmental protection, and obtained, renewed and communicated relevant regulations and standards in a timely manner. In accordance with the latest regulations and standards, it managed daily environmental protection practices, fulfilled its environmental protection responsibilities & obligations, and implemented state guidelines and policies on energy saving and emission reduction. In 2022, the Company was not punished for any violations against environmental regulations.



Efforts of responding to climate change

Climate change has become a huge risk and challenge faced by the world, affecting all aspects of human life. Therefore, the Company actively identified the risks and opportunities of climate change, established a leading group and work organization for “dual-carbon” work promotion to coordinate the implementation of “low-carbon” work. By increasing the proportion of clean energy, and implementing energy-saving renovations, it explored energy-saving and carbon-reduction potential, and took multiple measures to reduce carbon emission intensity to achieve annual energy-saving and carbon-reduction targets.



Pursuing Low-Carbon Operation to Protect the Ecological Environment

Adhering to laws and regulations such as *the Environmental Protection Law of the People's Republic of China* and *the Energy Conservation Law of the People's Republic of China*, the Company continued to perfect relevant measures for green operation, and increased investment in environmental protection to enhance environmental performance. It made sure that pollutants emitted during the production process and other activities met relevant requirements, and entrusted third-party professional organizations to test and issue reports on pollutants, ensuring that pollutants were discharged up to standard after being treated by environmental protection facilities. It also encouraged employees to save energy and strived to reduce the impact of own operations on the environment. In 2022, discharge of wastewater, waste gas and noise, and disposal of hazardous wastes both achieved 100% compliant treatment.



Energy management

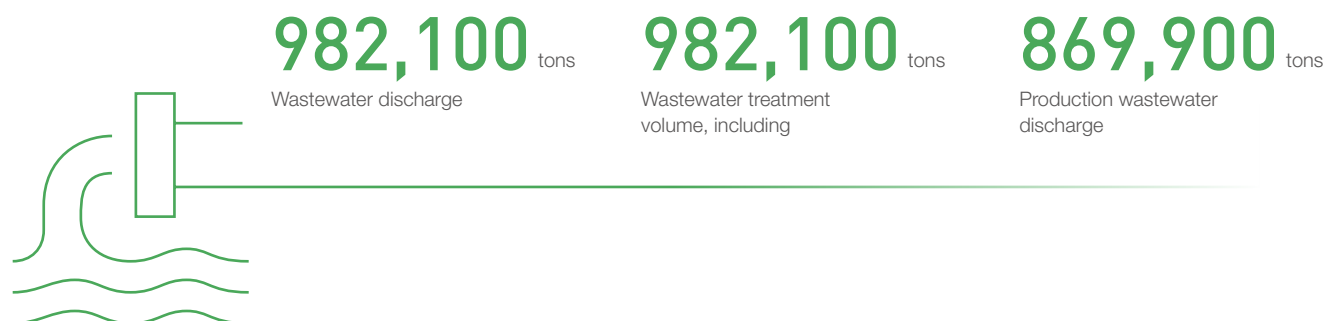
Energy required for the Company's production mainly comes from electricity and natural gas. In 2022, the Company strengthened energy consumption management during production and work and continuously optimized production processes to reduce unit energy consumption, in accordance with the *Assessment Rules for Energy Management*, thereby reducing its overall energy consumption.



Wastewater and waste gas management

Industrial wastewater produced by the Company mainly contained ammonia nitrogen, fluoride, COD, and total phosphorus. According to the pollutant discharge permit, the level-3 sewage discharge standard shall be applied. The wastewater generated during the Company's production process was not discharged externally and was recycled after treatment. In 2022, the Company produced and treated a total of 982,100 tons of wastewater volume, including 869,900 tons of production wastewater volume treated.

In 2022, the Company invested more than RMB 2 million in the classified collection and disposal of acidic and alkaline waste gases, further improving their treatment efficiency. In addition to the activated carbon devices for treating organic waste gas purchased, the Company invested more than RMB 1.5 million to buy 3 sets of photocatalytic oxidation treatment devices, further improving its treatment efficiency of organic waste gas.



Solid waste management

In accordance with the *National Catalogue of Hazardous Wastes* and the environmental impact assessment (EIA) report, the Company categorized wastes into hazardous wastes and industrial solid wastes. It entrusted qualified third-party organizations with the permit for hazardous waste treatment to help treat 1168.3 tons of hazardous waste produced in 2022. Industrial solid wastes produced by the Company mainly included calcium fluoride-containing sludge. In 2022, it handed over 1453.57 tons of calcium fluoride-containing sludge to qualified brick factories as an auxiliary material for producing bricks.



100 %

Hazardous waste disposed of in compliance with related standards

100 %

Non-hazardous waste disposed of in compliance with related standards



Eco-friendly workplace

Attaching significance to the impact of business operations on the environment, the Company integrated energy conservation and emission reduction into all processes of daily management and operation and guided employees to develop environmental awareness and habits, so as to create an eco-friendly workplace. It installed group control systems for lighting zones and terminal air-conditioners in the office building to realize the timing switch by the remote control. With these group control systems, it can set a unified temperature, heating mode, and other parameters for the facilities, effectively reducing unnecessary energy consumption caused by lighting and air conditioning facilities after work. Besides, it encouraged employees to participate in environmental protection-oriented public welfare activities, including afforestation, low-carbon travel, garbage sorting, reuse of old items, environmental training, and guided employees to contribute to environmental protection in every detail of life and the construction of a green homeland.

Holding Environmental Protection Activities to Promote Green Development

The Company supported the development of new energy industries and continued to facilitate the sustainable development of the new energy industry in the areas supported by the Company and of the planting industry in Zhuzhou City. In 2022, the Company spent a total of about RMB 200,000 on fruits and vegetables to help farmers. It also organized employees to plant trees, guiding the youth of TEC to plant new trees while also establishing the concept of "dual-carbon" in their hearts. More than 100 people participated in the tree planting activities, with more than 200 tree seedlings planted.

Connecting the Happy Workplace to Create a Stage for Realizing Dreams

Regarding employees as the important cornerstone for its sustainable development, TEC protected their basic rights and interests, provided smooth career development and promotion channels for talents, and carried out multi-level, multi-form and multi-faceted employee trainings. It also provided employees with a broad platform for development, cared for the health and life of employees, and created a safe and comfortable working environment. It helped employees realize their personal values while making common progress with them and sharing its development achievements.

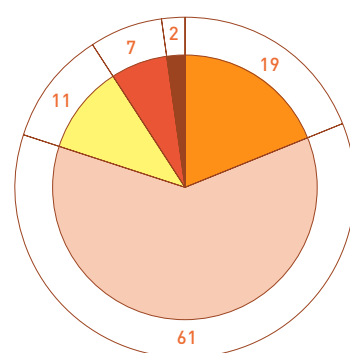


Recruiting Staff Based on Equality and Inclusiveness

The Company employed diverse talents on an equal basis, fully protected the legitimate rights and interests of employees, and strengthened communication with employees through democratic management. These actions were to timely understand the areas for improving the Company and employees' expectations and pool the wisdom to realize the common growth and development. In 2022, the Company continued to revise and improve the relevant systems such as the *Employment Management Measures*, *Payroll Management Measures*, *Management Measures for Salary Payment*, *Management Measures for Employee Performance*, *Management Measures for Working Overtime*, *Management Measures for Employee Attendance*, *Management Measures for Reemployment after Retirement* and *Management Measures for Internal Early Retirement*. It also improved the employee benefits system, and continuously enhanced the sense of belonging and happiness of employees.

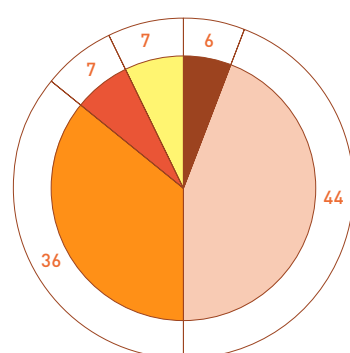
As at the end of 2022, a total of 7,994 employees had signed labor contracts according to the consolidated statement of the Company and all its subsidiaries in China. The Company had a relatively stable workforce in China. Over the last three years, its employee turnover rate was maintained at below 5%, and was only 4.19% in 2022.

Employee Education Structure (%)



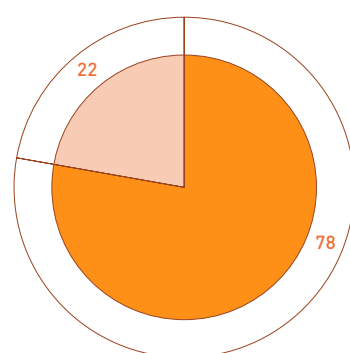
■ Doctor ■ Master ■ Bachelor
■ Junior ■ Lower than junior college

Employee Ege Structure (%)

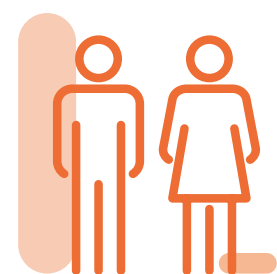


■ Under 25 years old ■ 26-35 years old
■ 36-45 years old ■ 46-50 years old
■ Above 50 years old

Employee Gender Structure (%)



■ Male ■ Female



7,994

Total number of Employees in China, including

8.87%

Employee employment

296

Ethnic minorities

4.19%

Employee turnover

2

Disabled employees

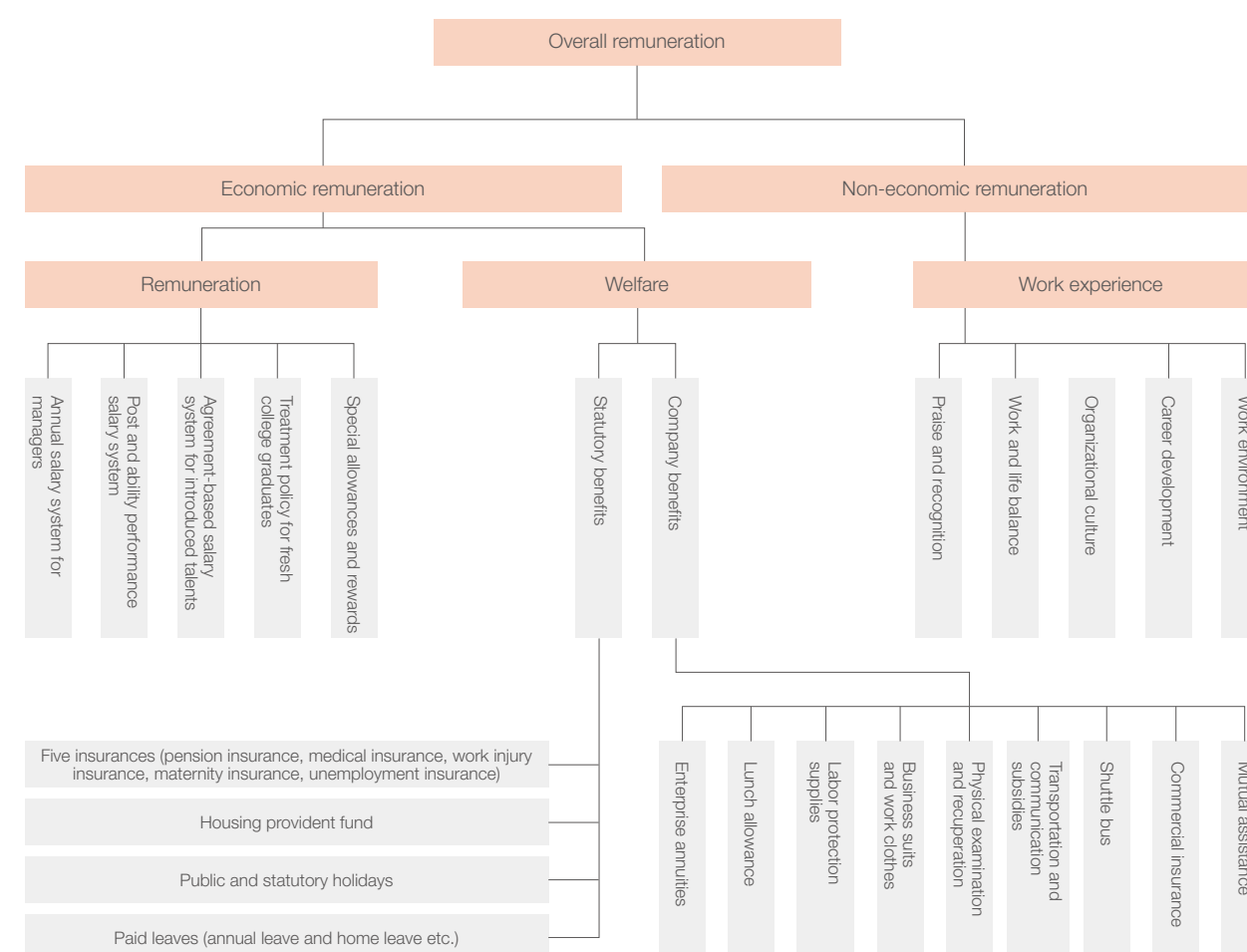
Note: The company's labor contract employees are full-time employees.



Salary and benefits

In accordance with the requirements of national and local laws and regulations, the Company provided and maintained statutory benefits for its staff, including basic endowment insurance, basic medical insurance (including medical insurance for serious illnesses), work injury insurance, maternity insurance, unemployment insurance and housing provident fund. It also provided employees with multiple benefits at its discretion, including corporate annuities, supplemental medical insurance, lunch subsidies, health allowance, physical examination, recuperation, mutual assistance and commercial insurance. Its employees were entitled to day-off on weekends, statutory holidays, wedding leave, funeral leave and maternity leave. In addition, they were entitled to annual leave according to the *Regulations on Paid Annual Leave for Employees* and *Measures for Paid Annual Leave for Enterprise Employees*. The Company implemented a five-day work week and 8-hour workday, including 7 fixed working hours and 1 flexible working hour, so that employees can work and live happily.

The Company followed the concept of total remuneration, extended the concept of remuneration to include welfare and other non-economic rewards such as honors and career development opportunities. Accordingly, its employees can have a comprehensive understanding of its returns for them, attracting and retaining talents. In addition, the Company turned to dispatched workers to assume the assistant, temporary or replaceable posts. In this case, dispatched workers enjoyed the same salary and welfare policy with its contract-based employees.

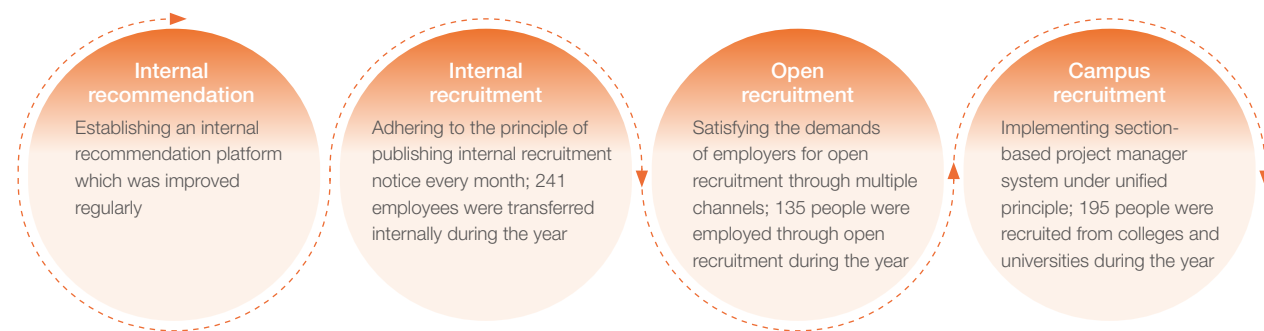


Our salary and benefits



Employment diversity

The Company followed the requirements under the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, the *Law of the People's Republic of China on the Protection of Minors*, the *Law of the People's Republic of China on Protection of Rights and Interests of Women* and the relevant laws and regulations. It recruited employees according to the post recruitment standards and different talent needs for positions through recruitment channels such as internal recommendation, internal recruitment, open recruitment and campus recruitment. Besides, it introduced innovative measures to recruit skilled talents and overseas talents, so as to provide talent support for its major business development. It maintained a sound staff recruitment process, reviewed the basic information of job applicants according to strict standards, and forbid the employment of child labor and forced labor. In addition, it adhered to the principle of gender equality, and treated employees of different nationalities, colors, ages, genders and marital statuses according to the same standard. In 2022, the Company neither recruit any child labor or minors, nor employ contract-based employees under 18.



Democratic participation

In strict accordance with the *Trade Union Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, *Regulations on the Workers' Congress of Enterprises*, *Regulations on Democratic Management of Enterprises*, *Measures for Factory Affairs Disclosure* and other relevant system documents, the Company continuously improved the communication and coordination mechanisms and channels, actively promoted democratic management, and opened and diversified the channels for the expression of opinions. These measures were to encourage employees to offer suggestions for the development of the Company, and fully mobilize employees to participate in democratic management, supervision and decision-making to strengthen their sense of ownership and responsibility.

Workers' Congress	Based on the principle of democratic centralism, the Company established its Workers' Congress system in accordance with relevant requirements under the <i>Trade Union Law of the People's Republic of China</i> . The Council of Labor Union which is the working body of the Workers' Congress is responsible for the daily work of the Workers' Congress. Currently, the Company has 147 staff representatives, involving personnel from various fields, such as management, technology, production and marketing.
Factory affairs disclosure	To implement the factory affairs disclosure system, the trade unions at all levels disclosed the major matters of the Company's production and operation, integrity and self-discipline of leading officials and disposal of major assets through Workers' Congress, Party committee, decision-making committee and documents in accordance with the four principles of being fact-based, being diverse in forms of open supervision, disclosing information based on time and issue, and combining disclosure with supervision. Democratic supervision was implemented after factory affairs disclosure to assist the administrative organizations in conducting annual democratic review of nearly 200 leading officials from 30 assessment groups.
Collective negotiation system	The <i>Collective Contract</i> and the <i>Special Collective Contract for the Protection of the Rights and Interests of Female Employees</i> have been signed, which included contents like salary guarantee, labor protection, occupational health and safety and protection of female employees. When faced with major operational changes that affect employment opportunities (contract changes), the Company would fully consider the placement and diversion of employees in advance, develop special plans, investigate the intentions of employees and solicit their opinions. Finalization, publicity and implementation of the plan would follow the democratic process, and the relevant process would be recorded and archived.



Helping Employees Grow and Fulfill Their Dreams

The Company continued to focus on the growth and capability development of employees, constantly diversified and improved the multi-level talent cultivation mechanism, and encouraged every employee to participate in multiple forms of training to improve the comprehensive quality, professional competence and management level of all employees. In addition, it orderly promoted the construction of a multi-channel post and rank development system for management, technology and skills, built smooth career development paths, and helped employees make continuous improvement and grow into talents, so as to realize the common development of employees themselves and the Company.



Education and training system

A talent team is core competitiveness of a company and plays a critical role in corporate development. The Company always focused on cultivating talents and developing talent teams. Based on its positioning and development strategy, the Company integrated internal and external curriculum resources, organized multi-dimensional training programs and activities on leadership, cultural power and professional competence, and created multiple core talent teams comprising talent reserves, professional talents and internal trainers. In 2022, the Company cultivated more than 1,000 professional talents based on the multi-type, multi-layer and multi-level training system. The basic training on general skills covered 8,000 persons. Besides, the Company completed more than 2,000 training programs, and implemented more than 90% of its annual training programs. It also effectively tapped over 100 golden cases based on market, R&D and management and developed over 100 internal trainers, which laid a solid foundation for business and talents development.





Smooth career development paths

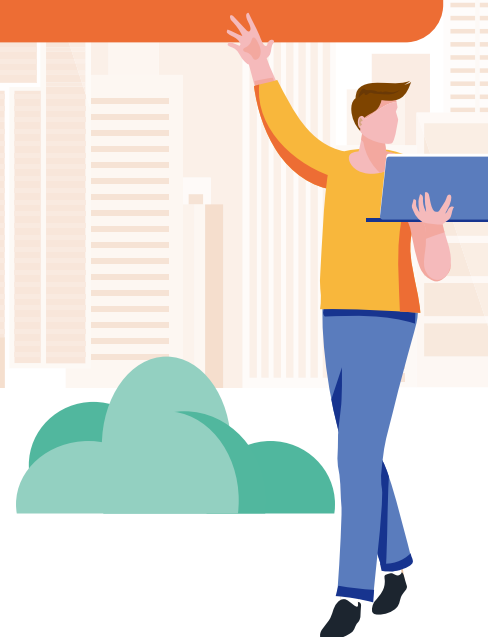
While accelerating the enterprise development, the Company always focused on the personal development of employees. The Company was dedicated to building an open, fair and transparent career development platform for employees, and realizing the common development of employees and the Company.

Establishment of career development paths

The Company provided different career development paths for employees in various professional fields based on their jobs. According to its human resources development strategy as well as the pattern and characteristics of talent growth, the Company encouraged employees to improve their ability and professionalism step by step based on the qualification standard. It divided the career development paths into seven layers - S, T, A, B, C, D, E (high to low), each of which (except for layer S) was subdivided into three levels.

Efficient development of talent teams

The Company promoted competition for posts. In principle, it appoints leading officials by competing for positions, with the overall ratio not less than 80%, and implements the withdrawal mechanism in the annual assessment of leading officials. It continued to prompt the withdrawal of low-performing employees, and filled the vacancy from withdrawal with introduced core talents. A total of 239 low-performing employees were withdrawn in the years of 2021 and 2022. The Company established a resume database for internal talent exchange, promoted the flow of 63 internal talents and cultivated over 30 comprehensive business talents.



Caring for Staff to Share the Warmth

The Company provided employees with a safe and comfortable, harmonious and positive working environment and organizational atmosphere, carried out colorful cultural and sports activities beneficial to physical and mental health. It also helped employees in difficulties, and balance their work and life, and improved the cohesiveness of the staff team.



Occupational health and safety

The Company attached great importance to the physical and mental health and safety of employees, and made clear provisions on labor supervision, safety culture, labor safety and health education, occupational safety and health protection in the Collective Contract and the *Special Collective Contract for the Protection of the Rights and Interests of Female Employees*. It also carried out the internal audit and external supervisory audit of ISO 45001 Occupational Health and Safety Management System on a regular basis to ensure the continuous and effective operation of the EHS management system. In 2022, the Company invested nearly RMB 42 million in labor protection, work safety, employee labor protection and rectification of potential safety hazards. The Company did not have any accidents involving deaths and serious injuries. It also had no Class I fire and explosion accidents, material and liable traffic accidents, and other accidents with material effects. All these indicated good performance of the Company on work safety. Besides, the Company did not violate relevant laws and regulations in relation to the provision of a safe working environment and the protection of employees from occupational hazards. In 2022, TEC spent over RMB 4 million on providing physical examination services for more than 3,800 persons (excluding non-local subsidiaries). No occupational contraindications were found during these physical examinations.



Case

TEC passed the on-site assessment of standardized work safety in first-class enterprises

From August 22 to 24, 2022, in accordance with the relevant provisions of the *Measures for the Grading of Standardized Work Safety in Enterprises* (YJ [2021] No. 83), the Ministry of Emergency Management organized 5 experts for on-site assessment of standardized work safety in the first-class enterprises at TEC's premise. The expert panel assessed TEC from five aspects, i.e., basic management, mechanical safety, operating environment, hot work and electrical safety, and conducted inspection and on-site guidance by combining data inquiry and on-site inspection. TEC obtained 91.7 points for on-site assessment of standardized work safety, which met the requirements for standardized work safety in first-class enterprises of the machinery industry. This meant that the Company successfully passed the on-site assessment of standardized work safety in first-class enterprises of the machinery industry.

**Safety education and training**

The Company organized all kinds of external and internal safety education and training activities to improve the safety capability of employees. In 2022, more than 200 EHS training sessions, with a training cost of over RMB 30,000 and more than 14,000 trainees, were provided.

Inspections of potential safety hazards

The Company organized all kinds of inspections of potential safety hazards and rectifications with clear purpose, basis, standard and focus, and completed 3,505 safety hazard rectifications throughout the year.

Strengthening emergency management

The Company organized over 200 emergency drills, including those for traffic accident, electric shock, cardiopulmonary resuscitation, mechanical injury accident, plant power failure, and confined space, so as to continuously improve the emergency response ability of all staff and create a good atmosphere of safety culture.

**Care for employees**

The Company actively created a harmonious and warm atmosphere in the workplace, treated every employee equally, and cared for special employees such as female employees, employees in difficulties and retired employees. It continued to make solid and meticulous efforts in serving and helping employees, so that they can truly feel the warmth of the big family. Meanwhile, it protected the rights of female employees during the three periods of pregnancy, maternity and lactation, and held retirement ceremonies and physical health lectures for retiring employees from time to time, so that the retired or retiring employees can feel the warmth of the big family and realize a smooth transition.

**Balance between work and life**

The Company attached great importance to the balance between work and life of employees. It cared about vital interests of employees, and organized collective activities that were characterized by diversified forms and rich contents based on the personal hobbies of employees. These measures were to enrich the spiritual and cultural life of employees, help them eliminate fatigue from work, enhance their sense of identity, belonging and loyalty to the Company, and enable them to better enjoy work and life.

Health care carnival activities

During the year, 10 activities of health doctors providing services at the grass-roots level were carried out, and 5 class hours of fitness coaching every week, as well as more than 40 psychological classes were provided. The health doctors, fitness coaches and psychological classes at the grass-roots level provided physical and psychological health services for employees, encouraged employees to use their spare time for convenient physical exercise activities at will, and enhanced their awareness of health self-management. These activities promoted the harmonious development of body and mind with rich knowledge and practice, and provided continuous healthy power for employees to participate in the construction of the Company's century-old foundation and jointly build and share a happy family.

**Family care and accompanying activities**

TEC focused on the care for employees' families, and provided many interest-oriented classes such as badminton, yoga, handicraft and jazz during the summer vacation. We held these interest-oriented classes for children of employees to meet the core demand of "employees yearning for a better life", continuously improve employees' senses of gain, achievement and happiness, and guide employees with high-quality services. These classes were also for pooling the cohesive force, gathering development momentum, and promoting employees to engage in the Company more effectively.

Reading activities organized for female employees

The Company received 67 reading articles and 31 home letters. It held activities for promoting the family civilization of employees continuously. To be specific, it carried out outdoor trainings for female employees, invited internal experts to teach time management and other courses for their self improvement.

Creating Better Future Together to Embrace a Bright Future

TEC strengthened supplier management, and managed to build a responsible supply chain. At the same time, it deepened industrial cooperation, and actively established and expanded platforms for communication with industry partners, so as to achieve coordinated development and mutual benefit. Committed to social public welfare, the Company integrated love and responsibility into its development, with the aim of giving back to society, and becoming outstanding corporate citizens.



Promoting Partnership for Progress Together

By strengthening supplier management and supply chain construction, we improved the quality of material supply. Besides, we integrated the concept of responsible procurement and social responsibility management into supplier management to build a responsible supply chain. We also deepened communication and mutual learning with partners such as governments, upstream and downstream enterprises, universities, research institutes to build consensus on cooperation and enhance our influence and voice in the industry.

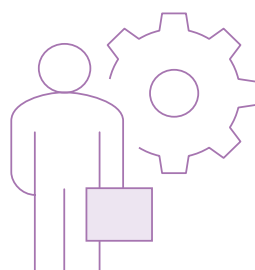


Creation of a responsible supply chain

Supply chain management

The Company set up a complete procurement management system covering management of source finding & price, contract, procurement, category and supplier. The Company had a total of 796 key suppliers in 2022.

In terms of supplier management, to standardize the management of suppliers, ensure the quality of purchased materials and improve management efficiency, the Company developed a *New Supplier Admission Process*, main procedures of which are online registration and filling-in of enterprise qualification information – development of new supplier development plans, – signing of cooperation agreements (*Confidentiality Agreement*, *Quality Assurance Agreement*, *PCN Agreement*, *Supplier Code of Conduct*, *Framework Contract for Material Procurement*, *Cooperation Response Agreement for Supplier Admission*) – on-site supplier certification (on-site certification of suppliers in technology, quality and commerce aspects with special audit on environmental impacts and labor employment) – supplier rectification – approval on suppliers for trial production – approval on temporary suppliers – approval on qualified suppliers.



The Company was a winner of
Gasgoo Award as Top 100 Players of China's New Automotive Supply Chain in the 4th Gasgoo Awards Ceremony in 2022

Responsible procurement

In the business certification of the *New Supplier Admission Process*, we specified the items required to be audited in the supplier's EHS system. According to the process, all newly admitted manufacturers shall receive on-site certification (EHS certification). For old suppliers, on-site certification (EHS certification) shall be conducted regularly. Meanwhile, we shall manage and update the supplier's qualification certificates through the SCM system in a timely manner and shall strengthen supplier management via regular on-site audit on main suppliers. In 2022, a total of 205 suppliers, or 25.7% of our suppliers were audited.

In addition, we signed *Supplier Code of Conduct* with suppliers. This code mainly includes requirements for suppliers on compliance with laws and regulations, no forced labor and child labor, respect for basic human rights of employees, wages and benefits that meet basic local living requirements, anti-corruption & anti-bribery, integrity and self-discipline, product and service quality, and supplier visits. During bidding, environmental requirements shall be specified in the technical specifications, and suppliers will be required to respond to them accordingly. We will also organize training for suppliers to strengthen communication with suppliers, and improve their sustainable development capabilities. In 2022, we organized 3 trainings on supplier management, which included training on the topic of integrity, and prepared a brochure on integrity culture to promote anti-corruption in the daily communication with suppliers.



Efforts to deepen multilateral cooperation

Academic exchange and cooperation are important mechanisms for promoting the sound development of science and technology, and play a significant role in driving enterprises' technological progress. Adhering to and fully promoting open innovation, the Company coordinated its planning, deepened the cooperation with top universities for innovative research and diversified its models. Besides, it continuously strengthened the linkage between school-enterprise cooperation projects and talent development, and enhanced the exchange of technical research achievements and the utilization of cutting-edge technology information at home and abroad. The Company also built a platform for cooperation on major projects and cutting-edge technology exchange and established cooperative relationships with top universities such as University of Cambridge, Ruhr University Bochum, Tsinghua University, Hunan University, and Huazhong University of Science and Technology in fields such as electrified transportation, new energy, and power electronics.

Following the principles of "focusing on strategy and projects, complying with laws and regulations, and achieving mutual benefit", the Company carried out in-depth cooperation with the governments, enterprises and research institutions in fields such as new energy generation, semiconductor and electric drive system for new energy vehicles, traction system for national railway and subway, emerging businesses, and offshore engineering. It joined forces with the upstream and downstream of the industry to overcome technical difficulties and contribute wisdom to the industry's development. As at the end of last year, the Company had negotiated and signed over 80 cooperation agreements with local governments and enterprises, of which more than 30 have been completed.

Case

TEC signed the Framework Agreement for Comprehensive Cooperation of Wind-Photovoltaic-Hydrogen Storage with China General Certification Center

On November 28, 2022, TEC signed the Framework Agreement for Comprehensive Cooperation of Wind-Photovoltaic-Hydrogen Storage with China General Certification Center. Based on the Framework Agreement, the cooperation between the two parties will be further strengthened. In addition to the certification of traditional inverter equipment, the scope of cooperation will be expanded to include new technology assessment and certification, engineering and after-service quality evaluation, new technology evaluation, green and low-carbon assessment in fields of wind power, photovoltaics, energy storage, and hydrogen production. The cooperation will involve multiple aspects such as research and development, product, quality, standards, and test capability recognition to achieve sustainable development featured with collaborative R&D, quality awareness, precision delivery, and service-oriented collaboration.

Engaging in Public Charity to Pass on Warmth

The Company mainly worked as a team to serve the enterprise and gave back to the society. Of course, it also encouraged individuals to carry out public welfare activities. Taking the opportunity of Lei Feng Month, it planned and implemented more than 20 activities in many forms, such as voluntary blood donation, free dental check-up, voluntary cleaning, and warehouse cleaning, to spread the spirit of volunteers featured with "dedication, love, mutual help and progress".

In addition, we upgraded and optimized Yuexing Volunteer Association's operating mechanism and platform architecture, formed a registered volunteer team engaged in enterprise services, social welfare and care for education, and attracted a total of 107 registered volunteers. We also normalized volunteer services, serving as the backbone of urgent and difficult tasks internally and demonstrating the image of a responsible state-owned enterprise externally to let our youth shine through dedication.



Outlook for the Future

General Secretary Xi Jinping clearly defined the overall goal of China's development by 2035 in the report of the 20th National Congress of the CPC, that is, "to broadly establish eco-friendly ways of work and life; steadily lower carbon emissions after reaching a peak; fundamentally improve the environment; largely accomplish the goal of building a Beautiful China". To achieve the goal, we will embark on a new journey and make new contributions in the new era. We will implement guiding principles of the 20th National Congress, and take response to climate change as an important leverage to promote ecological conservation and achieve high-quality development. At the same time, we will continue to pursue a proactive national strategy in response to climate change, promote ESG management, and contribute to the development of environmental protection, society, corporate governance and industry. In addition, we will share the fruits of development with stakeholders. By doing so, we can achieve new results in promoting green and low-carbon development, and create a sustainable future.



Sustainability Management



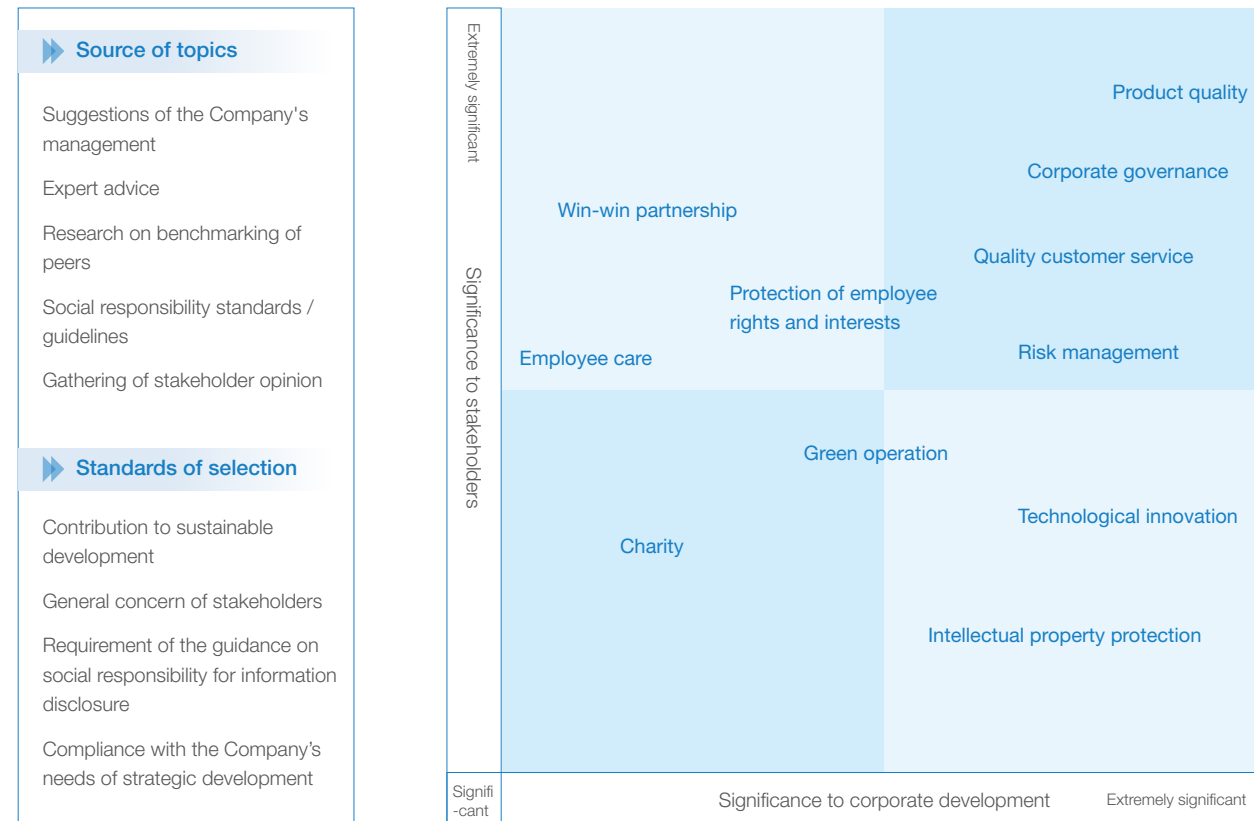
Sustainability System

The Company established and improved the sustainability management framework and comprehensively implemented top-down management of sustainability work. It created a complete and systematic sustainability management system to further enhance its sustainability management. Meanwhile, by integrating the concept of sustainability into corporate strategy and culture and practicing social responsibility extensively, it put sustainability into place to create comprehensive economic, social and environmental value.



Identification of Material Topics

The identification and management of material topics of social responsibility was our priority. We actively analyzed and evaluated the external environment as well as our sustainability strategies and capabilities to identify expectations and demands of stakeholders. Based on accurate analysis of material topics, we deepened our sustainable development.



Communication with Stakeholder

We actively track the needs and feedback of stakeholders by virtue of diversified communication mechanisms and channels, and convey the Company's development to stakeholders timely, in an effort to gaining the trust and support of stakeholders, and realize the win-win results between the Company and stakeholders.

Stakeholder	Ways of Communication	Requirements & Expectations	Main Indicators
 Government	<ul style="list-style-type: none"> Establishing high-level communication mechanisms Holding working meetings and reporting Implementing government management requirements Abiding by laws, regulations and policies 	<ul style="list-style-type: none"> Keeping compliance operation Guaranteeing tax revenue Promoting employment Developing rail transit equipment industry Driving local economic development 	<ul style="list-style-type: none"> Total tax income Employment of local people
 Investors	<ul style="list-style-type: none"> Regular report and unscheduled announcement Shareholders' meetings Circulars 	<ul style="list-style-type: none"> Sustained profitability Standardized governance Risk prevention 	<ul style="list-style-type: none"> Profits Rate of capital return Asset-liability ratio Owner's equity
 Customers	<ul style="list-style-type: none"> Opinion solicitation Satisfaction survey Customer visits 	<ul style="list-style-type: none"> Product upgrade Quality services Product quality 	<ul style="list-style-type: none"> Customer satisfaction rate Passing rate of products
 Employees	<ul style="list-style-type: none"> Workers' Congress Executive reception day Exchange forum Skill training 	<ul style="list-style-type: none"> Safe, healthy and comfortable working environments Equitable development opportunities Good compensation and benefits 	<ul style="list-style-type: none"> Employee satisfaction Employee turnover rate Investment in employee training
 Suppliers	<ul style="list-style-type: none"> Suppliers' meetings Negotiations on contracts Tendering meetings 	<ul style="list-style-type: none"> Open, fair and transparent cooperation Acquisition of reasonable income 	<ul style="list-style-type: none"> Project bidding Claim on quality defect from suppliers, etc.
 Communities	<ul style="list-style-type: none"> Charitable activities Celebration day parties Questionnaire surveys 	<ul style="list-style-type: none"> Helping the poor and people in need Community development and harmony 	<ul style="list-style-type: none"> Investment in communities Times of participation in community activities

ESG Key Performance



Operating Performance

Indicator	2022	2021	2020
Total assets (unit: '000,000,000 yuan)	485.10	441.51	338.66
Operating income (unit: '000,000,000 yuan)	180.34	151.21	160.34
Total profits (unit: '000,000,000 yuan)	29.42	21.23	28.37
Total tax paid (unit: '000,000,000 yuan)	16.82	11.93	11.82



Corporate Governance Performance

Structure of the Board of Directors and the Board of Supervisors

Indicator	Board of Directors			Board of Supervisors			
	Executive director(s)	Non-executive director(s)	Total	Independent supervisor(s)	Shareholder representative supervisor(s)	Staff representative supervisor(s)	Total
Number of people (person)	5	6	11	1	1	2	4

Proportions of Gender, Age of the Board of Directors

Indicator	Gender		Age		
	Male	Female	Younger than 30 years old	31-50 years old	Older than 50 years old
Number of people (person)	10	1	0	2	9

Business Ethics and Anti-corruption

Indicator	2022	2021	2020
Coverage rate of anti-corruption education (%)	100	100	100
Annual integrity talks (person)	1,579	1,155	-
Corruption lawsuits against the Company or its employees (No.)	0	0	0
Case of violating laws and regulations for preventing bribery, blackmail, fraud and money laundering (No.)	0	0	0



Environmental Performance

Indicator	2022	2021	2020
Electricity consumption (GWh)	17,168	14,910	13,377
Electricity consumption per capita (kWh)	21,476	19,281	-
Natural gas consumption ('00,000 m ³)	251	231	363
Natural gas consumption per capita (m ³)	313.99	298.72	-
Water consumption ('00,000 tons)	175	172	138
Comprehensive energy consumption per RMB10,000 of output value (tce)	0.013	0.013	0.013
GHG emissions from natural gas combustion (tCO ₂ e)	5,426.95	4,994.53	-
GHG emissions from electricity (tCO ₂ e)	7,799.42	6,773.61	-
GHG emission intensity per capita (tCO ₂ e)	1.65	1.52	-
Wastewater discharge ('00,000 tons)	98.21	84.3	-
Wastewater treatment volume ('00,000 tons)	98.21	81.7	-
Industrial wastewater discharge ('00,000 tons)	86.99	81.7	-

Notes: GHG emissions from electricity (tCO₂e) = Total amount of purchased electricity * carbon dioxide emission coefficient
 GHG emissions from natural gas combustion (tCO₂e) = Consumption quantity * Low heating value * Carbon content per unit calorific value * Carbon oxidation rate * 44/12



Social Performance

Number of Employees (person)

Indicator		2022	2021	2020
Total number of employees		7,994	7,733	8,024 (including overseas employees)
By gender	Male	6,217	5,929	-
	Female	1,777	1,804	-
By age	Under 25 years old	503	390	-
	26-35 years old	3,538	3,761	-
	36-45 years old	2,881	2,564	-
	46-50 years old	552	516	-
	Above 50 years old	520	502	-
	Master's degree and above	1,676	1,521	-
By academic qualification	Bachelor's degree	4,900	4,717	-
	Technical and vocational education	1,418	1,495	-

	Region	2022	Region	2022
By region	Hunan	4,376	Chongqing	63
	Shaanxi	518	Jilin	59
	Jiangxi	402	Heilongjiang	49
	Hubei	318	Yunnan	47
	Henan	287	Guizhou	56
	Gansu	231	Lnner Mongolia	37
	Zhejiang	224	Guangdong	34
	Shanxi	217	Beijing	25
	Shandong	209	Shanghai	20
	Hebei	175	Fujian	21
	Sichuan	151	Qinghai	12
	Liaoning	133	Ningxia Hui	12
	Jiangsu	120	Tianjin	12
	Anhui	110	Xinjiang	10
	Guangxi	62	Hainan	4

Employee turnover (by age, by region) (%)

Indicator		2022
By age	Under 25 years old	11.73
	26-35 years old	5.99
	36-45 years old	1.84
	46-50 years old	0.36
	Above 50 years old	0.38

	Region	2022	Region	2022
By region	Hunan	2.77	Chongqing	7.94
	Shaanxi	3.47	Jilin	5.08
	Jiangxi	8.71	Heilongjiang	8.16
	Hubei	7.55	Yunnan	6.38
	Henan	6.27	Guizhou	1.79
	Gansu	6.49	Lnner Mongolia	5.41
	Zhejiang	6.25	Guangdong	2.94
	Shanxi	5.07	Beijing	0
	Shandong	5.74	Shanghai	0
	Hebei	5.14	Fujian	0
	Sichuan	6.62	Qinghai	8.33
	Liaoning	6.02	Ningxia Hui	8.33
	Jiangsu	3.33	Tianjin	0
	Anhui	6.36	Xinjiang	0
	Guangxi	1.61	Hainan	0

New and Resigned Employees of TEC (persons)

Year	2022						
Type	Gender		Age				
	Male	Female	Under 25 years old	26-35 years old	36-45 years old	46-50 years old	Above 50 years old
New employee(s)	670	39	310	360	39	0	0
Resigned employee(s)	299	28	60	211	52	2	2

员工培训

Indicator		2022	2021	2020
Total investment in training ('00,000 yuan)		965	869	800
Training time per capita (hour)	By category of employees			
	Senior manager	45	40	-
	Middle manager	48	42	-
	Gross-root employee	44	42	-
	By gender			
	Male	44	45	-
	Female	42	42	-
	Average	43	45	45
	By category of employees			
	Senior manager	102	63	-
Number of trainees (person)	Middle manager	1,600	1,607	-
	Gross-root employee	6,000	6,063	-
	By gender			
	Male	5,980	5,941	-
	Female	1,722	1,792	-
	Total	7,702	7,733	-
Total number of trainees (person)		7,646	8,000	8,000

Indicator		2022	2021	2020
Training projects completed (No.)		>2,000	>2,000	>2,000
Implementation rate of the annual training plan (%)	By category of employees			
	Senior manager	92.00	90.01	-
	Middle manager	91.00	91.30	-
	Gross-root employee	92.00	92.50	-
	Average	90.00	92.26	

Occupational Health & Safety of Employees

Work injury data	Type of employees	Male	Female
Description of work injury type (person)	Contract-based employee	2	1
	Dispatched employee	0	0
Lost days due to work injury (day)	Contract-based employee	191	60
	Dispatched employee	0	0
Lost day rate (LDR) (%)	Contract-based employee	77	24
	Dispatched employee	0	0

Supply Chain Performance

Type of supplier	North America	Europe	Asia (excluding China)	China (including enterprises registered in mainland China, Hong Kong, Macau and Taiwan)	Total
Agent	/	/	1	153	154
Trader	/	3	1	23	27
Manufacturer	2	14	3	596	615
Total	2	17	5	772	796

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Feedback Form

Dear readers,

Thank you for reading the 2022 *Environmental, Social and Governance Report of Zhuzhou CRRC Times Electric Co., Ltd (the "Company")*. In order to provide you and other stakeholders with more valuable information and promote our ability of social responsibility management, we sincerely invite you to leave your comments and suggestions on the report.

1. For us, what is your identity?

- ☐ Government
- ☐ Regulator
- ☐ Shareholder and investor
- ☐ Customer
- ☐ Supplier and partner
- ☐ Employee
- ☐ Community and the public
- ☐ NGO
- ☐ Others

2. Do you think the report completely include your expectations for us?

- ☐ Yes
- ☐ No, what else do you want to see in the report? Please write it down.

3. What do you think of the clarity, accuracy and completeness of the information, data and indicators disclosed in the report?

- ☐ Higher
- ☐ High
- ☐ Average
- ☐ Low
- ☐ Lower

4. Do you think the content and layout design of the report are readable?

- ☐ Very Good
- ☐ Good
- ☐ Average
- ☐ Poor
- ☐ Very Poor

5. What are your opinions and suggestions on our social responsibility management?



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ZHUZHOU CRRC TIMES ELECTRIC CO., LTD.