



CHINA TOWER CORPORATION LIMITED

中國鐵塔股份有限公司

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

Stock Code : 0788

Wherever people live,

tower of communication exists



2023

ESG Report

About the Report

Introduction ■■■

This Report seeks to disclose information regarding the environmental, social and governance (ESG) performance of China Tower Corporation Limited (hereinafter referred to as "China Tower", "Company", "we" or "us") in 2023. This Report is prepared in accordance with Appendix C2 "Environmental, Social and Governance Reporting Guide" ("ESG Reporting Guide") to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("Listing Rules") to help stakeholders acquire a better understanding of China Tower.

Scope of Report ■■■

The organizations covered by this Report include China Tower Corporation Limited, as well as its subordinate companies. Compared with the ESG reports of the Company in previous years, this Report made no major adjustment to the scope of disclosure and used consistent statistical methods. The statistical scope of the data covered by the report is indicated herein, and the data calculation is performed according to national regulations or international standards. The amounts reported in this report are denominated in Renminbi unless otherwise indicated.

Scope of Timing ■■■

The reporting period of this Report is from 1 January 2023 to 31 December 2023 (hereinafter referred to as "This Year"). Certain information contained herein may concern events, etc. occurred before or after the reporting period to make this Report more relevant and complete.

Reference Guide ■■■

The content of this Report conforms to Appendix C2 "ESG Reporting Guide" to the Listing Rules issued by the Hong Kong Stock Exchange, and is compiled in accordance with the principles of materiality, quantification, balance and consistency, as indexed in the Appendix of this Report.

"Materiality" principle



During the preparation of this Report, major stakeholders and materiality issues of concern have been identified, and targeted disclosures have been made in this Report according to the importance of issues.

"Quantitative" principle



This Report uses quantitative data to present key performance indicators at the environmental and social level of the Company. The measurement standards, methods, assumptions, calculation tools for the key performance indicators in this Report, as well as the sources of conversion coefficients used, have been explained in the Report correspondingly.

"Balance" principle



This Report is in compliance with balance principle to present the ESG performance and management status of the Group objectively.

"Consistency" principle



Unless otherwise stated, this Report applies the same statistical method with the 2022 Environmental, Social and Governance Report of the Company.

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Chairman's Statement

2023 was a critical year for China Tower to implement the "14th Five-Year Plan". We kept in mind the country's most fundamental interests and boldly assumed the responsibilities as a "National Team" and "Main Force" in the construction of information, communication and digital infrastructure and 5G infrastructure. We continued to strengthen the fundamentals of digital infrastructure and facilitate the flow of information throughout the economy and society to fully serve and support the implementation of Cyberpower, Digital China and "Carbon Peak and Carbon Neutrality (Dual Carbon)" strategies, and promote the harmonious coexistence and sustainable development of the enterprise with the economy, environment and society.



Zhang Zhiyong

Chairman of the Board



Chairman's Statement



Continuing to deepen the sharing and building the digital fundamental together

By coordinating resources, intensive construction, and co-construction and sharing, we accelerated the construction of 5G infrastructure, realizing a more efficient and economical deployment of the network to help China expedite the building of the world's largest and best-quality wireless communications network. As of the end of 2023, we had cumulatively been contracted to build over 2.3 million 5G base-stations, completing the construction of over 4 million projects related to telecommunication towers. Additionally, our indoor distributed antenna systems (DAS) had covered a cumulative length of over 24,000 kilometers in high-speed railway tunnels and subways. We adhered to the principle of "prioritizing co-location and sticking to sharing philosophy in building up new sites", saving 1,120,000 towers from being built, and reducing land use by 62,000 mu and carbon emissions by 29.80 million tons by the end of 2023.



Basing on the digital economy and creating a digital and smart future together

Relying on the advantage in resource capacity, we continued to deepen the social sharing. Through "Towers + Big Data + AI", we focused on the digital needs of visual perception, data collection, and information processing. We managed to equip various industries with "Clairvoyant (千里眼)", "Clairaudience (顺风耳)" and "Smart Brain (智慧脑)". We have been transforming "telecommunication towers" into "digital towers" and "telecommunication shelters" into "data shelters", which are widely applied in various key areas related to the national economy and people's livelihoods, such as environmental protection, forestry, agriculture, lands, water resources, transportation, emergency response and politics and laws, serving digital governance while supporting the Digital China strategy and empowering a wide range of industries.



Embracing the green philosophy to jointly promote low-carbon development

We actively responded to climate change by implementing the "dual carbon" development concept, of which we have formulated a work plan to promote low-carbon operations in the Company, green energy use in industries, and sustainable low-carbon development in society. We tapped into the potential of clean energy such as solar energy and built a total of 21,000 clean energy-powered sites to conserve energy, reduce carbon emissions, and promote green development. Additionally, we actively extended the power assurance capabilities of communication base stations to society, creating smart energy services to benefit the people. The number of serving users of battery exchange business reached 1.145 million, enabling light electric vehicles to travel more than 90 billion kilometers, reducing carbon emissions by more than 3 million tons.

Chairman's Statement



Provoking innovation momentum to seek joint development



We actively implemented the innovation-driven strategy, and continuously improved the scientific and technological innovation system. We focused on key areas by increasing R&D investment and efforts in breakthrough-making, and promoted the commercialization of innovation outcomes. Besides, we engaged in active conversations on building an innovative ecosystem with partners from industries, academic and research institutions to continuously elevate the Company's innovation level in science. This year witnessed an over 38% increase in the Company's R&D investment, a more than 47% rise in the number of invention patent applications, and the number of authorized invention patents surged by more than 200%.



Undertaking social responsibilities and sharing development results



We thoroughly implemented the people-centered development philosophy by caring for employees, protecting their rights and interests as well as supporting employees career growth, which continuously enhanced their sense of fulfillment, happiness and security. Meanwhile, we actively contributed to rural revitalization by delivering aid in 97 counties in 21 provinces (municipalities or autonomous regions) to bring about positive changes. We committed ourselves to promoting universal services and bridging the digital divide, and working with TSPs to build universal service sites. We made every effort to guarantee national events, successfully completed communication support for more than 20 major events and multiple emergency support tasks, which protected the "lifeline" of the communication network.

In the new era and new journey, in 2024, we will continue to deepen the "One Core and Two Wings" strategy. Our position as a "world-class information and communications infrastructure service provider, and a highly competitive information and new energy applications provider" will see us developing an "operational system that is professional, intensive, delicate, efficient, and digitalized". We will use this to build an "enterprise centered around sharing, service, innovation, technology and value creation". We will promote high-quality operations, reform, technological product innovation, talent team, management, and party building in an integrated manner and push them to new heights. We will accelerate our progress towards the goal of building a world-class enterprise and keep contributing substantially to the sustainable development of the economy and society.



Statement of the Board



The Board of Directors of the Company has placed great emphasis on the ESG management and has established an ESG management system headed by the Board of Directors and led by the management, for cross-departmental and top-down collaboration. As the highest responsible and decision-making body for ESG matters, the Board of Directors of the Company is responsible for overseeing environmental, social and governance matters and holds at least one meeting a year to discuss management strategies of ESG and important matters.

The Company regularly evaluates the materiality of environmental, social and governance issues, and the specific evaluation process and results are detailed in the section headed "Sustainable Development Management" of the annual ESG report and reviewed by the Board of Directors. The Audit Committee of the Board of Directors of the Company is responsible for overseeing the risk management and internal control system, including risks related to environmental, social and governance, as detailed in Corporate Governance Report of the Company's Annual Report and reviewed by the Board of Directors on a regular basis.

During the Reporting Year, the Company has established environmental objectives associated with its business operations and conducted a review on the completion of the objectives set in the previous year, as detailed in the subsections headed "Firmly Practicing Green and Low-carbon Philosophy" and "Vigorously Promoting Environmental Protection and Energy Conservation" of the annual ESG report and reviewed and discussed by the Board of Directors.

Detailed ESG-related matters are disclosed in this Report, which has been reviewed and approved by the Board of Directors on 18 March 2024.





Walking into China Tower

China Tower Corporation Limited, a large state-owned enterprise that provides telecommunications infrastructure services, was founded with the support from the State Council, against the backdrop of implementing the Cyberpower strategy, and promoting the sharing of telecommunications infrastructure resources. Incorporated on 15 July 2014, listed on the main board of the Hong Kong Stock Exchange (stock code: 0788.HK) on 8 August 2018, and headquartered in Beijing, the Company has established branches in 31 provinces and prefecture-level cities across China, as well as subsidiaries, such as Smart Tower Corporation Limited (鐵塔智聯技術有限公司) and Energy Tower Corporation Limited (鐵塔能源有限公司).

After over nine years of development, China Tower has developed into an international company with 2.046 million tower sites and assets of more than RMB300 billion, as well as the largest telecommunications infrastructure service provider around the globe. The Company practices the new development philosophy in all respects, continues to deepen the “One Core and Two Wings” strategy, and is committed to becoming a world-class integrated service provider of information, communications and digital infrastructure, as well as a service provider of informatized application and new energy application with core competitiveness. The “One Core” business, namely the TSP business, refers to the construction, maintenance and operation of ancillary facilities of base stations based on digital infrastructure construction, the public network coverage over high-speed railway tunnels and indoor DAS. The “Two Wings” businesses, namely the Smart Tower businesses and energy businesses, are digital governance and new energy application services for thousands of industries and social livelihood, relying on the endowment of enterprise resources and capabilities to deepen shared development.



Awards and Honors 2023

 **December**

Awarded "Outstanding Listed Company of High-quality Development (卓越高質量發展上市公司)" and "Best Investment Value for Listed Companies (最具投資價值上市公司)" by China Securities Golden Bauhinia Awards



 **December**

Awarded "Listed Enterprises of the Year" by Bloomberg Businessweek



 **June**

Won the Highest Grade in the Evaluation of the Effectiveness of the Paired Assistance Work by Central Entities in 2022 (2022年度中央單位定點幫扶工作成效考核評價最高等次) notified by the Central Rural Work Leading Group

 **August**

Awarded Gold Winner in the International ARC Awards for the ESG Report 2022



 **February**

Awarded "The Asset ESG Corporate Awards 2022" by The Asset

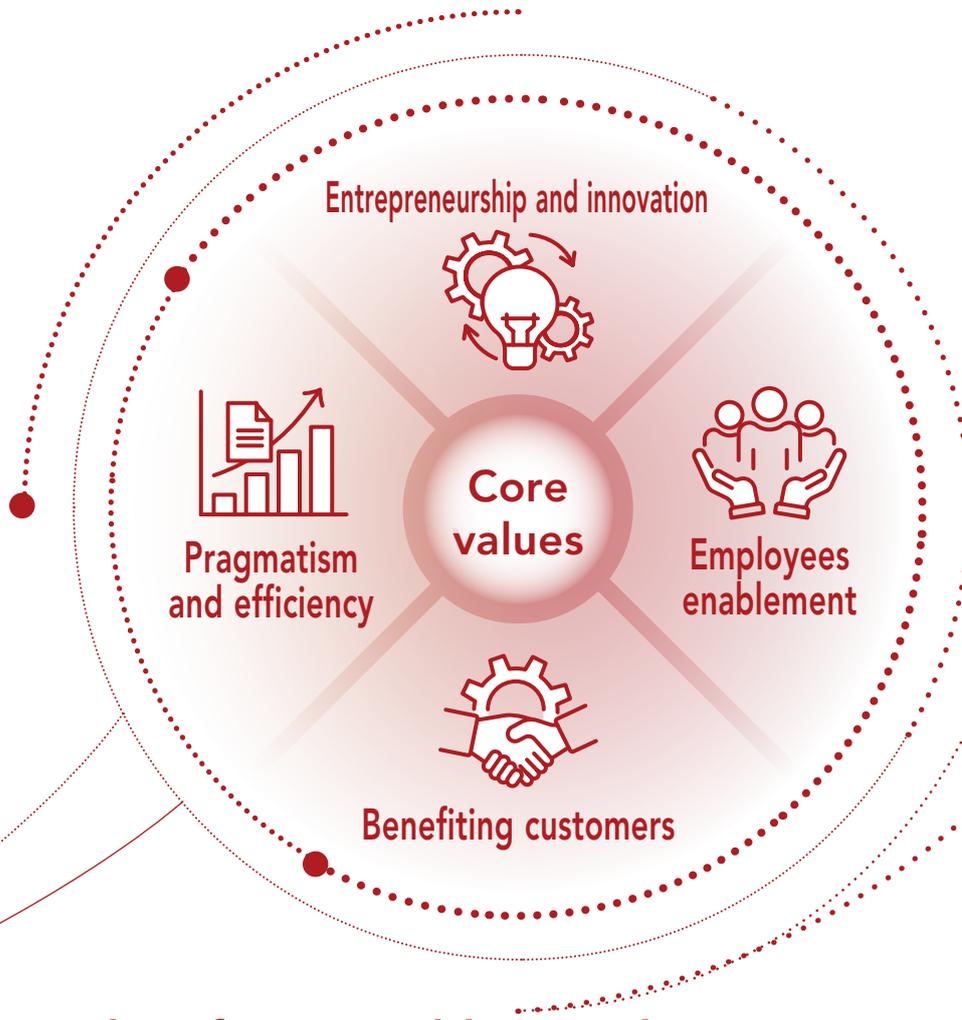


 **January**

Awarded "ESG Hong Kong Stock Best Practice Award 2022 (Social)", "ESG Hong Kong Stock Best Practice Award 2022 (Governance)", "ESG Hong Kong Stock Industry Best Practice Award 2022 (Telecommunications Services)" by Wind



Sustainable Development Management



Philosophy of Sustainable Development

China Tower adheres to the core values of "Entrepreneurship and innovation, pragmatism and efficiency, benefiting customers and employees enablement", serves to support national strategies such as "Cyberpower", "Digital China" and "dual carbon", and actively layouts new generation mobile communications, new energy and other emerging industries to constantly promote the healthy development of the sharing economy, the digital economy and the platform economy.

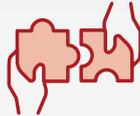
We actively fulfill our environmental, social and governance responsibilities, and work hard to implement the United Nations' Sustainable Development Goals (SDGs), incorporating the philosophy of sustainable development into corporate strategy and production operation and management. The Company insists on a sharing-oriented approach, reduces redundant construction to save natural resources, and promotes low-carbon and environment-friendly production methods. We have expanded the comprehensive utilization of new energy services, broadened the application of photovoltaic, wind and other new energy technologies, and worked with partners to jointly tackle the issues of climate change. We are accelerating the extension of 5G networks to remote areas such as rural areas to realize the value of enterprises in providing services to support the healthy and sustainable development of the economy, society and industry.

The Company has established an ESG management system headed by the Board of Directors and led by the management, for cross-departmental and top-down collaboration. The Board of Directors is responsible for the formulation of ESG strategies and goals, and the management takes charge of the practical implementation of such strategies and goals. Several departments in the headquarters work together as an ESG working group tasked with carrying out ESG operations within their fields of business, and all branches and subsidiaries at all levels perform local ESG tasks under the guidance of the ESG working group. The establishment of the ESG management system of the Company ensures that the environmental and social risks involved in various business lines are properly managed, and that the ESG philosophy and strategies are effectively implemented.

Sustainable Development Management

Stakeholder Communication

China Tower established a routinized communication mechanism with stakeholders. With reference to the requirements of the ESG Reporting Guide of the Hong Kong Stock Exchange, the Company actively understood and responded to stakeholders' concerns on the ESG issues of the Company through exchange meetings, questionnaires, reviews and summaries, and integrated them into the Company's relevant decisions. The key stakeholders that the Company has identified based on the actual situation of the enterprise, their major ESG concerns, and the main communication channels are listed in the table below.

 Main stakeholders	 Communication mechanisms and methods	 Expectation on China Tower	 Our response
 <p>Government and regulatory authorities</p>	<ul style="list-style-type: none"> Meetings Disclosure of compliance reports Reports and visits 	<ul style="list-style-type: none"> Compliance with laws and regulations Regulatory requirement implementation Facilitation of industry development "Dual carbon" goal implementation 	<ul style="list-style-type: none"> Govern the corporate in accordance with laws, and operate with integrity Strictly comply with the disclosure requirements of corporate information Innovate products and services and promote industry development
 <p>Investors</p>	<ul style="list-style-type: none"> Annual reports and announcements Investor meetings Questionnaires Daily communications 	<ul style="list-style-type: none"> Protecting service quality Regulating information disclosure Creating corporate value Regulating corporate governance Operational risk prevention 	<ul style="list-style-type: none"> Improve service process and enhance quality management Comply with the disclosure requirements of corporate information Operate steadily and continue to create value Enhance corporate governance level and continuously enhance internal control system Protect the rights of investors in accordance with laws
 <p>Customers</p>	<ul style="list-style-type: none"> Strategic cooperation Satisfaction survey Electronic communication channels (WeChat Service, 10096 service hotline) Customer manager's visits Questionnaires 	<ul style="list-style-type: none"> Guaranteeing service quality Customer privacy and information security Emergency communication supports 	<ul style="list-style-type: none"> Improve service process and enhance quality management Innovate products and services Protect customer information in accordance with laws Improve emergency response capabilities
 <p>Suppliers</p>	<ul style="list-style-type: none"> Purchasing Supplier evaluation Supplier portal websites Supplier telephone communication Questionnaires 	<ul style="list-style-type: none"> Sustainable supply chain Equal and mutually beneficial cooperation 	<ul style="list-style-type: none"> Cooperate with integrity, create mutual benefit and achieve win-win Actively create an industrial ecosystem

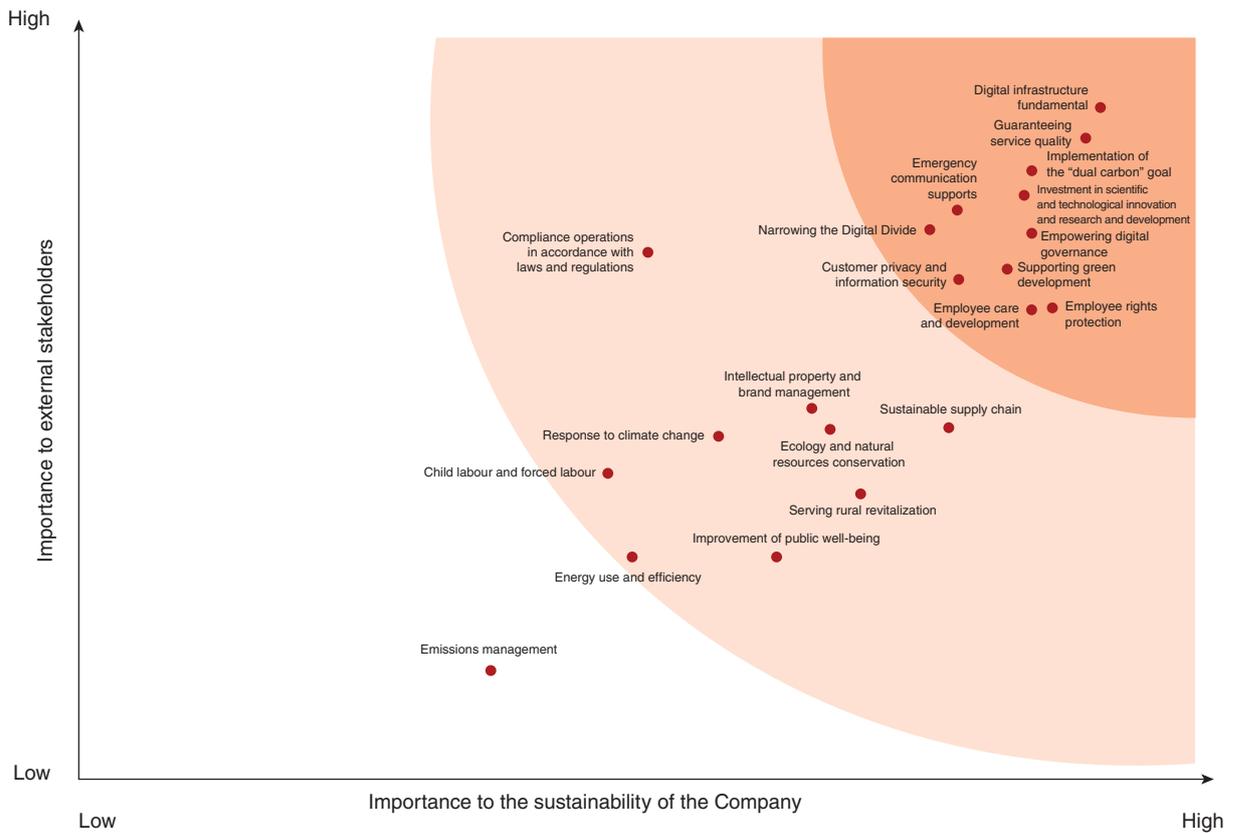
Sustainable Development Management

 Main stakeholders	 Communication mechanisms and methods	 Expectation on China Tower	 Our response
 Communities	<ul style="list-style-type: none"> • Community communications activities • Volunteer activities • Rural revitalization activities • Questionnaires 	<ul style="list-style-type: none"> • Ecology and natural resources conservation • Emergency communication supports • Community investment and engagement • Narrow the digital divide 	<ul style="list-style-type: none"> • Implement energy conservation and carbon reduction as well as environmental protection measures • Improve emergency response capabilities • Promote alleviation jobs and participate in community construction • Promote telecommunications universal services
 News media	<ul style="list-style-type: none"> • Media interviews • News releases and announcements • Questionnaires 	<ul style="list-style-type: none"> • Guaranteeing service quality • Investment in scientific and technological innovation and research and development • Emergency communication supports • Narrowing the digital divide • “Dual carbon” goal implementation 	<ul style="list-style-type: none"> • Improve service process and enhance quality monitoring • Promote business and product innovation • Improve emergency response capabilities • Promote telecommunications universal services • Implement energy conservation and carbon reduction as well as ecological environmental protection measures
 Employees	<ul style="list-style-type: none"> • Employee representative conferences • Employee activities • Employee training • “Secretary Communication Day” and “Through Train” of popular will • Questionnaires 	<ul style="list-style-type: none"> • Employee rights protection • Employees’ career development and training • Employees’ career health and safety • Employees’ participation 	<ul style="list-style-type: none"> • Regulate labor management • Improve income distribution and welfare protection mechanism • Enhance employee training and optimize career development • Strictly implement safety responsibilities and increase safety production level • Conduct democratic communication jobs

Sustainable Development Management

Materiality Issues Analysis

During this year, China Tower, based on the "ESG Reporting Guide", its own ESG development philosophy and stakeholders' concerns, sorted out a total of 21 materiality issues, and ranked the importance of issues in terms of two dimensions, namely "importance to external stakeholders" and "importance to the sustainability of the Company", by distributing questionnaires to representatives of key stakeholders and supplemented by external information collection and interviews and other methods. The analysis results are as follows:





Special Topics

Topic I Serving National Strategy, Demonstrating Dedication to Mission

Anchored around our positioning as a world-class integrated information and communications infrastructure service provider, and a highly competitive information and new energy applications provider, China Tower utilized advanced technology, complete solutions, professional teams and ultimate services to contribute our wisdom and strength to build a safe, smooth and inclusive communication network, and to firmly prop up national strategies such as Cyberpower and Digital China.

Laying Base of Digital Infrastructure

The Company fully played the role as a "National Team" in driving the country's wireless communications infrastructure and "Main Force" in 5G infrastructure, accelerated the quality and efficiency improvement of new digital infrastructure construction, focused on construction and service model innovation, optimized coverage plans, enhanced the comprehensive coverage and precise coverage capabilities, continued to promote the high-quality development of 5G network construction, and supported the efficient deployment of communication networks.



Promoting comprehensive and precise coverage of 5G networks and consolidating the base of digital economy

Beijing Branch collaborated with three TSPs to promote the transformation of 5G network construction from "wide coverage" to "continuous coverage" and "precise coverage", and to significantly improve the network signal coverage level and the innovation level of integrated applications. On the basis of realizing the full coverage of 5G network in 3,908 administrative villages in the city, Beijing Branch promoted the outdoor continuous coverage over key towns, key roads and densely populated areas, as well as the indoor precise coverage over hospitals, universities, tourism venues and other important places, and built a series of demonstrative and leading 5G boutique projects such as the Winter Olympics venues, high-speed railway tunnels and subways and the Daxing Airport, further consolidating the base of the digital economy.



● Beijing Yanqing Winter Olympics Alpine Ski base station



Innovation deepening the resource sharing to realize high-quality 5G coverage over the cross-harbour bridges

China Tower deepened the resource sharing, and in the process of construction of 5G public network coverage over the three cross-harbour bridges of the Fuzhou-Xiamen-Zhangzhou High-speed Railway, China Tower focused on the characteristics of bridge structure and 5G network standard, reasonably shared existing infrastructure resources of railway bridges, and realized the parallel planning, parallel design, parallel construction, and parallel implementation of the public network coverage construction with the railroad project through the high-quality design and organization. At the same time, China Tower innovatively proposed a 5G distributed bridge coverage plan, significantly improving the coverage capacity and transmission rate and realizing the high-quality 5G network coverage over the cross-harbour bridges of Fuzhou-Xiamen-Zhangzhou High-speed Railway.



● Public network coverage project for Fuzhou-Xiamen-Zhangzhou High-speed Railway

Building Communication Shield for Disaster Prevention and Mitigation

The Company adhered to the concept of “put people and their lives first”, resolutely fulfilled its responsibility for emergency communication supports, and made every effort to build a “lifeline” for disaster relief. In 2023, faced with the impact of sudden natural disasters such as multiple rounds of heavy rainfall, typhoons and local torrential rains, low-temperature rain and snow, earthquakes, etc., the Company implemented emergency communication support responsibilities at all levels, carried out solid rescue and disaster relief work, and invested a total of 641,000 employees, 324,000 vehicles, and 554,000 diesel engines; the Company completed emergency communication support for major natural disasters such as extremely heavy rainfall in the Beijing-Tianjin-Hebei region and a 6.2-magnitude earthquake in Jishishan County, Linxia Prefecture, Gansu Province, and was highly praised by people in disaster areas and all sectors of the community.



Beijing-Tianjin-Hebei region suffered heavy rainfall, and emergency rescue operations ensured communications

In August 2023, flooding and geological disasters were caused by continuous extreme rainfall in the Beijing-Tianjin-Hebei region. The Company quickly activated the first-level flood control emergency response, efficiently deployed surrounding support forces in the main disaster-stricken areas such as Mentougou District and Fangshan District in Beijing, Shijiazhuang and Baoding in Hebei, and Wuqing District, Jinghai District, and Xiqing District in Tianjin, deployed a total of 20,000 employees, 10,400 repair vehicles, 29,000 diesel engine generators, 15,000 times of power generation, completed the emergency rescue communications support work for major natural disasters, fully demonstrating the “iron army spirit” of China Tower employees who are “unity is strength”.



● Extremely heavy rainfall emergency support operation site in Beijing-Tianjin-Hebei region



Supported earthquake disaster communication to set up a “lifeline” for rescue in disaster areas

In December 2023, a 6.2-magnitude earthquake occurred in Jishishan County, Linxia Prefecture, Gansu Province, causing heavy casualties and property losses. Local water, electricity, transportation, communications and other infrastructure were damaged to varying degrees. The Company quickly launched a second-level emergency response, fully deployed emergency repair personnel and supplies, cooperated with three TSPs to jointly carry out emergency response support work, restored all communications in the disaster area as soon as possible and set up a “lifeline” for rescue in the disaster area, which was highly praised across the society.

Special Topics

Setting up Bridge of Communication in Remote Areas

In order to fully implement the national “new infrastructure” and technological innovation development strategy and continue to improve the construction of communication infrastructure in remote areas and poor towns, China Tower invested a lot of manpower and material resources, overcame many difficulties, established a stable and efficient communication network and built a communication bridge for remote areas, helping administrative villages across the country to fully open up the information highway and effectively eliminate the digital divide.



Promoted inclusive and coordinated development to narrow the “digital divide”



● Telecommunication base station at Alxa League pasture, Inner Mongolia

In order to better promote the inclusive and coordinated development of information and communications, China Tower worked with the industry to promote urban and rural communications construction. The growth of station sites in 12 provinces (autonomous regions and municipalities) in the west was higher than the national average, laying a “digital tower base” for the coordinated development of urban and rural areas. In the Alxa League of Inner Mongolia, the Company built new telecommunication base stations in remote areas where farmers and herdsman gather to effectively solve the daily communication problems of Gacha herdsman in the hinterland of the desert. In Kashgar, Xinjiang, the Company overcame difficulties and built 27 telecommunication base stations along the 888-kilometer border to provide 24-hour communication protection for border guards. In Nyingchi, Tibet, the Company helped 45 administrative villages in Medog County achieve full network coverage, providing convenience for local tourism, agriculture, animal husbandry and commercial development, and driving people along the route to increase their income and become rich.



● Telecommunication base station along the border of Kashgar, Xinjiang



● Medog base station in Nyingchi, Tibet



Realized “5G in every village” to jointly build a new future for rural communications

In 2023, the Company completed the goal of full 5G signal coverage in 13,710 administrative villages in Jiangsu Province ahead of schedule. With the completion and opening of the 5G base station in Tianwa Village, Caiji Town, Suqian City, Jiangsu Province, the last administrative village in Jiangsu Province achieved 5G signal coverage. This milestone achievement brought communication benefits to remote areas.



● 5G telecommunication base station in Niujiao Village, Caiji Town, Jiangsu

Becoming Pioneer in Ensuring Major Activities

China Tower, adhering to the attitude of “striving for excellence and making no mistake”, made every effort to do a good job of communication and power supply support for major activities, and went all out to organize and implement communication support for important events with high quality by strengthening the construction of professional teams, accurately sorting out the sites for key support, perfecting the contingency plan and carrying out contingency drills. At the same time, the Company set up a team of electric power experts, innovated electric power support schemes, strengthened the rehearsal of all elements and on-site command and scheduling, and achieved zero error, zero flash and zero interruption in electric power support.

In 2023, the Company successfully completed more than 20 major communications and power supply support tasks, and went all out to ensure the stable operation of communications and power supply, providing a solid support for the smooth progress of various large-scale activities.

Special Topics



Provided excellent security services to escort the Chengdu FISU World University Games



● Sichuan Branch's communication and power supply support operation at the FISU World University Games

In July 2023, the 31st FISU World University Games was grandly held in Chengdu. China Tower provided communication and power supply support services for the FISU World University Games, achieving "zero break, zero failure and zero complaint" for 1,626 pieces of equipment in the core area, innovatively designed and completed the construction of "island-style" microgrids and provided services on 470,000 meters of high and low-voltage cables, 498 UPS, and 76 diesel engines for the main power supply for the opening and closing ceremonies and emergency support for the event venues to achieve "zero error, zero flash, zero interruption, zero distance" and provide strong support for the smooth holding of the opening ceremony of the Chengdu FISU World University Games.



Stabilized communications and power supply support to protect Asian Games events



● Zhejiang Branch's communication support project central control room for the Asian Games

In October 2023, the 19th Asian Games came to a successful conclusion in Hangzhou. China Tower undertook the communication support and power support services for the Asian Games, and deployed a total of 19,427 employees, 8,869 vehicles, 8,778 diesel engine generators and 169 satellite telephones to successfully complete the Hangzhou Asian Games torch relay in 11 cities and the communication support for a total of 1,986 games in 56 venues and the opening and closing ceremonies of the Asian Games, achieving "zero break, zero failure and zero complaint" for the communication network support; the Company successfully completed the starting and finishing points of the torch relay in 7 cities of the Asian Games, as well as the power supply support tasks in 6 points of the Asian Games venues and hotels in Ningbo and Shaoxing, and ensured the smooth holding of the Asian Games with highly stable communication and power supply support.

Topic II Implementing Low-carbon Concepts, Empowering Green Development

China Tower continued to promote the implementation of the national strategy of “dual carbon”, deepened the “Two Priorities and Four Greens” concept of prioritizing sharing, prioritizing energy saving, green energy consumption, green industry, green empowerment and green production, continued to make efforts in aspects such as deepening the sharing to realize carbon reduction from the source, enhancing the energy efficiency of base stations with innovative technologies, empowering green governance with digital infrastructure and improving the level of green energy consumption through new energy applications, contributed to the realization of green, low-carbon and high-quality development.

Sharing Site Resources and Jointly Constructing Green Industry

By intensive construction, coordinating resources and deepening sharing, China Tower adhered to the principle of “prioritizing co-location and building up new sites based on our sharing philosophy” to effectively reduce the industry redundant investment construction and resources waste. As of the end of 2023, through co-construction and sharing, the Company managed to cut out a total number of 1.12 million newly built towers, saved 62,000 mu of land and 5.02 million tons of steel, saved RMB201.6 billion in investment and reduced 29.8 million tons of carbon emission.



Deepening the co-construction and sharing of towers and promoting network coverage with low carbon and high efficiency



● The Lijiang-Shangri-La Section of Yunnan-Tibet Railway

In order to make solid progress in the co-construction and sharing of information and communication infrastructure, China Tower gave full play to its coordinating role in integrating railway transmission pipeline, power introduction, tunnel walls and caverns and other resources, effectively enhancing the efficiency of resource utilization for the railway public network coverage project. In 2023, the Lijiang-Shangri-La Railway public network coverage project and the main projects were implemented in parallel, the construction of entire railway shared 17 BBU (Building Base band Unite) server rooms, 282 kilometers of optical cables, 93 kilometers of leaky cables, 235 POI (Point of Interface), 29 towers on the apron and 82 poles and towers outside the red line, realizing 100% sharing of poles and towers, and the number of poles and towers constructed on the entire railway was reduced by over 110, land occupation was reduced by over 6,600 square meters, which effectively reduced the resource consumption and greenhouse gas emissions caused by the construction of new towers.

Special Topics



Vigorously promoted material innovation to make old station sites glow with new green vitality

In order to solve the problems of “difficulty in reinforcement, transformation and sharing” in traditional iron towers, China Tower strengthened its leading role in scientific and technological innovation, applied new green and low-carbon composite materials to replace traditional steel, explored and researched carbon fiber and glass fiber combined reinforcement technology, and promoted its implementation nationwide. In 2023, the Company effectively activated the pole and tower assets of 145 sites in Guangdong. With the subsequent promotion and application of this innovative technology within the province, it was expected to reduce carbon emissions by 3,600 tons, making old facilities glow with new green and low-carbon vitality.



● Ground single tube tower reinforcement application



● Floor supporting rod reinforcement application



● Shared landscape light pole

The Company continued to transform the traditional macro station tower construction model, insisted on “every hanging level is exploitable”, used low-cost methods to share social resources, and achieved low-carbon, green and harmonious development while efficiently deploying 5G networks. As of the end of 2023, the social resource utilization rate of the Company’s new ground station reached 36.3%.



● Shared high voltage power tower



● Shared highway gantry

Strengthening Technology Innovation and Fulfilling Green Production

China Tower implemented the development concept of green, low-carbon and recycling economy, actively carried out technological and product innovation, innovated and simplified tower mast products, reduced resource consumption, and improved energy use efficiency. China Tower accelerated the integration of traditional energy and digital intelligent technology, carried out research on carbon emissions and energy efficiency classification technology of communication base stations, built a comprehensive carbon emissions statistics platform, and established a clean and low-carbon energy usage model.



Innovating and simplifying tower mast products to improve both quality and efficiency with low-carbon construction

Based on the innovative achievements of systematic wind tunnel experiments, the Company innovated, designed and simplified the shape of tower mast, created a series of low-cost and high-efficiency standardized products of tower mast, which use 10% to 30% less steel than traditional towers. As of the end of 2023, the low-cost standardized products of towers had been applied to 18,000 base stations nationwide, enhancing resource utilization efficiency through building materials conservation and galvanization reduction, so as to achieve the long-term goal of green and low-carbon development.



● Lightweight single tube tower



● Lightweight three-tube tower



Energy saving and emission reduction in network facilities to improve the energy efficiency of communication base stations

In order to further release the potential of energy saving and carbon emissions reduction in base stations, the Company promoted the refined management of energy consumption at base stations, and applied intelligent technologies to empower the improvement of the energy efficiency level of communication base stations. In 2023, the Company installed self-cleaning intelligent ventilation system at base stations, realizing adaptive switching between the ventilation system and the original air conditioners of the base stations according to the outdoor temperature, achieving reasonable distribution of energy consumption, reducing the electricity consumption of base stations, and increasing the energy efficiency level of ancillary facilities of telecommunication base stations by 1.53 to 5.15 percentage points, supporting the energy saving, emission reduction and green transformation of industry.

Special Topics

Serving by Digitalization and Intelligence Multi-dimensionally and Enhancing Green Empowerment

Based on the advantages in “towers, buildings, electricity and maintenance”, China Tower integrated various types of video surveillance equipment, and provided the society with digital governance application services such as medium and high-point video surveillance through “tower + big data + AI” technology, and provided practical solutions for co-processing of pollution reduction and carbon reduction and reducing negative environmental impacts.



Intelligent monitoring of “manual protection and technical protection”, collaborative management of pollution reduction and carbon reduction

Using information technology to monitor and eliminate straw “fire spots” and reduce air pollution and greenhouse gas emissions caused by straw burning were urgent needs for agricultural pollution reduction and carbon reduction. China Tower used high-point video combined with AI smoke and fire recognition technology to monitor straw burning behavior in real time, automatically detected suspected warning signals and conducted amplified tracking and secondary research and judgment, effectively improving the comprehensive supervision capabilities of local environmental protection departments and helping to win the “blue sky defense war”. As of the end of 2023, the Company’s straw intelligent monitoring system covered a total of 480 million mu of farmland in 24 provinces, and the collaborative management of pollution reduction and carbon reduction achieved remarkable results.



● High-point video and AI smoke and fire recognition



● Farmland monitoring in Ma'anshan, Anhui



Built the “smart eye” of China Tower to protect forest carbon sink resources

In order to ensure the ecological balance of the forest and consolidate the forest carbon sink resources, China Tower took advantage of its own site resources to build a forestry and grassland fire prevention monitoring platform and create a “new barrier” for forest fires. In Sichuan, the Company shared nearly a thousand high-point resources in the province’s forest and grassland areas for the construction of forest fire video surveillance systems, covering nearly 70 districts (counties) in 17 cities (prefectures) in the province, in order to contribute the “power of China Tower” to improve the carbon sink capacity of forestry and grassland ecosystems and consolidate existing carbon sequestration results.



● Sichuan Forest Fire Prevention Video Surveillance System



● Forest Fire Monitoring in Sichuan Forestry and Grassland Areas

Building Energy Network and Promoting Green Energy Dissipation

China Tower extended our capabilities of providing power backup based on telecommunications base station to society, providing diversified smart energy services. The Company took initiative to deploy new energy travel sectors, deployed a battery exchange network across China, driving light electric vehicles for over 90.0 billion kilometers in total, which is equivalent to reducing carbon emissions by over 3 million tons, empowering society and serving people’s livelihoods.

The Company focused on the telecommunications industry, actively explored “green energy, energy storage, energy conservation”, improved the green energy consumption level of base stations, and built a new power system with “Power generation source, Grid, Load and Storage” capabilities, contributing to the creation of an ecological network of green and smart energy. As of the end of 2023, the Company had established 21,000 clean energy sites nationwide, supporting the energy saving and carbon emission reduction of telecommunications industry.



Scale deployment of photovoltaic base stations to improve the level of green energy consumption in the industry



● Scale deployment of photovoltaic base stations in Jiangsu

In response to the planning requirements of the country to increase green transformation of 5G base stations, China Tower continued to promote the application of new energy technologies such as photovoltaic and wind energy, deeply tapping into the potential of green energy. In 2023, the Company completed photovoltaic renovation projects for 2,000 base-station sites in 3 prefecture-level cities, i.e., Xuzhou, Suqian and Huai’an in Jiangsu Province, the photovoltaic system of base stations accumulatively provided 4.88 million kWh of green electricity, reducing 2,800 tons of carbon dioxide emissions, which is equivalent to planting 300,000 trees.



An aerial photograph of a rural landscape. In the foreground, there are terraced fields and a small village with several buildings. A river flows through the middle ground. In the background, there are several prominent karst mountains under a hazy sky. A large green circular graphic is overlaid on the right side of the image, containing text.

Environment

- 25 Firmly Practicing Green and Low-carbon Philosophy
- 30 Vigorously Promoting Environmental Protection and Energy Conservation
- 33 Jointly Constructing a Green and Beautiful Ecology

Sharing Promoting Development and Motivating Green Vitality

Data Presentation of China Tower

- The total number of newly built towers cut out through co-construction and sharing: **1,120,000**, resulting in a saving of land: **62,000 mu**, and steel: **5.02 million tons**, reduction of carbon emissions: **29.80 million tons**
- Accumulated driving miles of light electric vehicles driven by battery exchange business: over **90.0 billion kilometers**, which is equivalent to reducing carbon emissions by over **3 million tons**
- The total number of clean energy sites nationwide: **21,000**
- Annual direct energy consumption: **323,091.63 MW•h**, decreased by **23.72%** as compared with 2022



Sharing Promoting Development and Motivating Green Vitality



Firmly Practicing Green and Low-carbon Philosophy

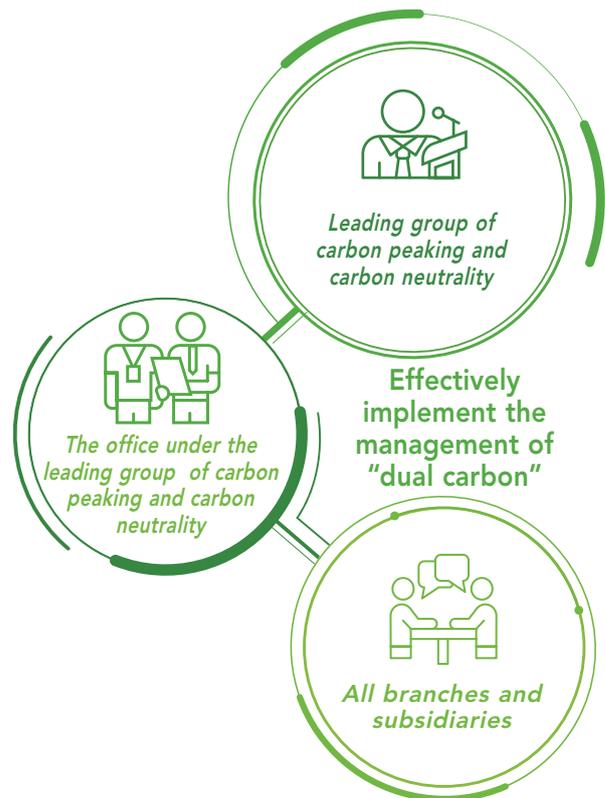
Governance

To effectively implement the climate change concepts and strategies, the Company continues to improve climate change management system, of which the Board of Directors is responsible for overseeing the formulation of climate change strategies and goals, and each department is responsible for carrying out climate change risk management and response operations in its specialized field.



Firmly practicing green and low-carbon philosophy

To effectively implement the management of "dual carbon", the Company has set up a leading group of carbon peaking and carbon neutrality, responsible for reviewing and promoting the implementation of various work measures of "dual carbon". An office under leading group is responsible for, among other things, formulating and implementing plans, following up the advancement of tasks and clarifying the division of responsibilities, to fully implement the Company's green development strategies and targets, and lead working practices related to climate change. All branches and subsidiaries actively perform tasks such as local climate change risk management and response operations under the guidance of the ESG working group and the leading group of carbon peaking and carbon neutrality.



Sharing Promoting Development and Motivating Green Vitality

Strategy

China Tower actively responds to the national strategy of “dual carbon”, deeply implements the Company’s philosophy of green development, formulates the “168” development plan of China Tower, incorporates the philosophy of sustainable development into the Company’s strategy and business operation and management, and comprehensively improves green and low-carbon development level.



One Core

“One Core and Two Wings” strategy



Six Philosophies

“Two Priorities and Four Greens”
(兩先四綠) philosophy

Two Priorities: Sharing priority, Energy saving priority

Four Greens: Green energy consumption, Green industry, Green empowering, Green production



Eight key tasks

- Establish green development pattern
- Build green telecommunication infrastructure
- Strengthen the supply capacity of green empowerment
- Improve the green level of energy consumption structure
- Promote efficient recycling of resources
- Build green industrial chain and supply chain
- Improve green and low-carbon management mechanism
- Strengthen the promotion of green production methods

Sharing Promoting Development and Motivating Green Vitality

Risk Management

The Company has established an analysis and assessment mechanism for climate change risks and opportunities, integrated climate-related risk management into all aspects of the Company’s risk management system, fully identified, monitored and assessed the risks and opportunities of climate change, and actively took countermeasures.

Types of Risks/Opportunities	Risk/Opportunity Description	Countermeasures
Acute risk	<p>Extreme weather may damage infrastructure such as tower sites, battery cabinets and server rooms, resulting in loss of fixed assets and pollution of the surrounding environment.</p> <p>Extreme weather may lead to disruption in construction, longer construction period and increased investment.</p> <p>Extreme weather may damage the health and safety of construction and operation personnel.</p>	<p>The infrastructure is designed to be weather-resistant during the design phase. According to the frequency and scale of natural disasters in that year, the Company timely assessed their impact on asset loss and pollution of the environment.</p> <p>In the early stage of the project, the Company fully considered the local climate factors, and included the cost of work delay resulting from extreme weather in the investment accounting during the construction cost stage.</p> <p>The Company developed emergency plans for extreme weather in the construction plan and operation and maintenance program documents, and provided staff with complete labor protection measures.</p>
Chronic risk	<p>Global warming will lead to an increase in the energy consumption of air conditioning and an increase in the Company’s operating costs.</p>	<p>The Company regularly evaluated and monitored the use time and energy consumption of air conditioners at sites, server rooms, and offices, adjusted regulations on air conditioning use in a timely manner, and evaluated the financial impact of increased energy consumption costs.</p>

Sharing Promoting Development and Motivating Green Vitality

Types of Risks/Opportunities	Risk/Opportunity Description	Countermeasures
Transition risk	<p>In terms of science and technology, with the development of 5G technology, the communication infrastructure will be more densely distributed and energy consumption will increase, and enterprises will face greater challenges in the research and development of low-carbon technologies.</p>	<p>The Company eliminated energy-intensive facilities in a timely manner. The Company cooperated with value chain partners to research how to improve energy efficiency of equipment and hardware to save energy and reduce carbon emissions.</p>
	<p>In terms of laws and regulations, relevant agencies will have higher requirements for energy consumption and environmental protection during the construction and operation.</p>	<p>The Company strictly abided by the procedural requirements of environmental impact assessment, energy conservation assessment, water resource assessment in the preliminary stage of the project, and continuously improved the enterprise's environmental and energy management system.</p>
	<p>In terms of the market, increased demand from customers for 5G base station construction may have an impact on the Company's overall energy consumption and greenhouse gas emissions.</p>	<p>The Company regularly formulated and improved energy consumption plans to control the impact of the increase in infrastructure scale on the Company's overall energy consumption and greenhouse gas emissions.</p>
Product/service opportunities	<p>With the increasing consumption of resources, the market has a more noticeable inclination towards the shared service model and the intelligent operation model.</p>	<p>The tower co-construction and sharing mode effectively enhances the efficiency of resource utilization, and intelligent operation and maintenance methods effectively reduce operating costs.</p> <p>The Company deployed battery exchange networks across China, which generates considerable carbon reduction benefits.</p> <p>Based on "tower + big data + AI", the Company increased the digital and smart empowerment, created a variety of industry applications and put them into use in various places.</p>
	<p>With the strengthening of the greenhouse effect and the rise in energy costs, the market has a stronger preference for reuse, low energy consumption, new energy and other types of products.</p>	<p>The cascade utilization of waste batteries reduces the cost of power backup and waste emissions, which helps achieve efficient deployment of 5G base stations with low energy consumption.</p> <p>The Company carried out green energy, energy storage and energy-saving business, implemented photovoltaic and base station energy storage projects to help reduce carbon emissions in the industry; carried out virtual power plant and electricity sales business, integrated photovoltaic, adjustable energy storage and loads into a unified pool of resources for "virtual power plants".</p> <p>The Company researched and developed various methods of renewable energy site, used the natural conditions of the location of the sites (such as solar and wind energy) to supply power to the sites so as to reduce power consumption from the grid and reduce greenhouse gas emissions.</p>

Sharing Promoting Development and Motivating Green Vitality

Metrics and Targets

The Company has formulated a series of environmental targets related to climate change, including energy conservation, resource conservation and greenhouse gas emission reduction targets, and evaluates the progress of the targets every year.

Category	Targets for 2023	Targets Achieved in 2023	Targets for 2024
Energy conservation target	<p>In 2023, the automatic energy-saving management and control rate of air conditioners in the Company's base stations reached 85.0%.</p> <p>Based on 2022, by the end of 2023, the energy consumption per capita of the Company was reduced by 2.0%;</p> <p>Based on 2022, by the end of 2023, the power consumption per capita of the Company was reduced by 2.0%;</p> <p>Based on 2022, by the end of 2023, the power consumption per capita of the Tower Industrial Park was reduced by 3%.</p>	<p>In 2023, the automatic energy-saving management and control rate of air conditioners in the Company's base stations reached 85.9%.</p> <p>By the end of 2023, the energy consumption per capita of the Company was reduced by 2.5%;</p> <p>By the end of 2023, the power consumption per capita of the Company was reduced by 3.2%;</p> <p>By the end of 2023, the power consumption per capita of the Tower Industrial Park was reduced by 10.3%.</p>	<p>In 2024, the automatic energy-saving management and control rate of air conditioners in the Company's base stations will reach 86.0%.</p> <p>Based on 2023, by the end of 2024, the energy consumption per capita of the Company will be reduced by 1.0%;</p> <p>Based on 2023, by the end of 2024, the power consumption per capita of the Company will be reduced by 1.0%.</p>
Resource conservation and greenhouse gas emission reduction targets	<p>The Company planned to continue to promote the co-construction model in 2023 to achieve the following resource conservation targets:</p> <ul style="list-style-type: none"> • 273,000 tons of steel used in towers • 2.18 million tons of concrete • 6.55 million A of switching power • Equivalent to a reduction of 1.532 million tons of greenhouse gas emissions 	<p>By the end of 2023, the Company saved the industry from building 67,000 new base stations through co-construction and sharing, and achieved the following resource savings:</p> <ul style="list-style-type: none"> • 311,000 tons of steel used in towers • 2.49 million tons of concrete • 7.3 million A of switching power • Equivalent to a reduction of 1.745 million tons of carbon dioxide emissions 	<p>In 2024, the Company will plan to save the industry from building 58,000 new base stations through co-construction and sharing to achieve the following resource conservation targets:</p> <ul style="list-style-type: none"> • 264,000 tons of steel used in towers • 2.1 million tons of concrete • 6.3 million A of switching power • Equivalent to a reduction of 1.481 million tons of carbon dioxide emissions

Sharing Promoting Development and Motivating Green Vitality

Vigorously Promoting Environmental Protection and Energy Conservation

China Tower has devised both the Action Plan for Carbon Dioxide Peaking and the 14th Five-Year Plan for Energy Conservation and Ecological Environmental Protection, integrating low-carbon principles into daily operational management. Fully leveraging the carbon reduction potential across the "One Core and Two Wings" sectors, the Company has advanced transformation towards sustainable development through various initiatives, including resource recycling, the adoption of low-carbon office practices, and the promotion of green procurement, enhancing the green development concept holistically.

Deepening the Recycling of Resources

The Company persistently advocated for the adoption and recycling of cascade batteries and substituted lead-acid batteries with cascade alternatives, markedly curtailing the generation of waste batteries. It also gradually improved the cascade battery industrial chain by virtue of the demand for large-scale application of base stations, actively participated in the construction of the whole life cycle industrial chain of cascade batteries and established collaboration with upstream and downstream enterprises to advance the cascade utilization of these batteries.

Cascade battery products for special scenarios:

In scenarios for electricity utilization of base stations in low temperature, high-altitude, mountainous areas, and fields far away from residential areas and with poor access to electricity, different cascade batteries backup systems were adopted to resolve the problem of unstable power supply of base stations in areas with poor power grid infrastructure.

Standardized cascade battery products for special working conditions:

The Company established enterprise-level technical specifications, which filled in the gap in the application of cascade batteries under special working conditions and comprehensively promoted the cascade recycling of battery resources.



Exploring the cascade utilization of battery exchange to improve resource recycling

In 2023, the Company carried out pilot work in Henan, Yunnan, Chongqing, Zhejiang and other provinces and cities to realize the whole pack utilization and disassembled utilization of cascade batteries, creating favorable application scenarios and a vast market for the cascade utilization of retired batteries. As of the end of 2023, 1,530 sets of whole-pack cascade batteries were utilized, which were used for power backup in base stations and power backup in small and micro stations. 280,000 retired battery exchange cells were dismantled, and 130,000 standard cells that meet the standards of power backup products were selected and used for power backup in base stations, with a utilization rate of 46%.



● The whole pack utilization of cascade batteries

Sharing Promoting Development and Motivating Green Vitality

In order to strengthen the recycling of dismantled materials, the Company has initially established the management process for dismantled materials, which identifies the dismantled materials, and after they are identified to be qualified, information of the materials will be entered into the system, which is convenient to use them based on needs, and effectively promote the development of circular economy. As of the end of 2023, the Company has completed the identification of more than 17,000 dismantled materials for recycling, and has used more than 5,600 dismantled materials, accounting for more than 32%.



Reuse of dismantled assets, achieving excellent results in recycling of resources

In order to implement the national requirements of accelerating the construction of a recycling system for waste materials, China Tower has given priority to using dismantled assets for the construction of tower base stations. In 2023, the Company used nearly 80 dismantled material towers in Suzhou, Jiangsu Province, saving about RMB3 million in investment. Through the reuse of dismantled assets, the Company revitalized “dormant” assets to meet the low-cost construction needs of customers.

Reinforcing the Concept of Green Office

China Tower strictly adhered to the Energy Conservation Law of the People’s Republic of China 《中華人民共和國節約能源法》, the Water Law of the People’s Republic of China 《中華人民共和國水法》 and other relevant laws and regulations, and fully practiced green office.

- Optimize the operation scheme of air conditioning, elevators, lighting and other facilities in office buildings, and carry out energy-saving renovations
- Promote paperless and digital office to reduce paper consumption
- Use water-saving equipment and conduct regular maintenance to avoid waste of resources such as “running water” and “leakage and dripping”
- Implement waste classification to promote waste reduction and resource utilization

The Company sets annual targets for water resource conservation and waste management based on its own actual situation, and regularly evaluates and updates the completion of the targets.

Category	Targets for 2023	Targets Achieved in 2023	Targets for 2024
Targets for water resource conservation	Based on 2022, by the end of 2023, the water consumption per capita of the Company was reduced by 2%.	By the end of 2023, the water consumption per capita of the Company was reduced by 3%.	Based on 2023, by the end of 2024, the water consumption per capita of the Company will be reduced by 1%.
	Based on 2022, by the end of 2023, the water consumption per capita of the Tower Industrial Park was reduced by 3%.	By the end of 2023, the water consumption per capita of the Tower Industrial Park was reduced by 22%.	
Targets for waste management	In 2023, 100% of the Company’s hazardous waste was disposed in compliance with regulations, and 100% of the sorted and stored waste was transferred in a separate manner in the Tower Industrial Park within 24 hours.	In 2023, the Company has achieved 100% disposal of hazardous waste in compliance with regulations, and the transfer of 100% of the sorted and stored waste in a separate manner in the Tower Industrial Park within 24 hours.	In the future, the Company will continue to ensure 100% disposal of hazardous waste in compliance with regulations.

Sharing Promoting Development and Motivating Green Vitality

On the basis of implementing the concept of green office and adhering to waste sorting and resource recovery, the Company relies on its own advantages on digital and intelligence capability to facilitate the waste sorting in community, enhance residents' awareness of waste sorting, to improve the community living environment.



Smart waste sorting bins got into the community, and led the new trend of social civilization

To promote the implementation of the national requirements on waste sorting, the Company has launched smart waste sorting bins, which integrate lighting, monitoring, advertising screens, waste sorting and collection, emergency power interface, emergency broadcast, expansion interface for community's micro-station, and smart management platform for waste sorting, thus the residents can turn waste into treasure without leaving home. By 2023, the Company has placed 884 smart waste sorting bins in 50 communities in Jizhou, Wuqing and Baodi of Tianjin, processing a total of 1,100 tons of recyclable waste.



● Smart waste sorting bins in Tianjin

Implementation of Green Procurement

The Company deepened its cooperation with suppliers, promoted a paperless electronic procurement platform and a comprehensive material e-commerce platform, procured more environmentally friendly new outdoor power supply supporting equipment, promoted environmental protection and conservation concepts throughout the procurement process, and promoted the Company's comprehensive implementation of green development.

In terms of bidding and tendering, the Company continued to promote the application of electronic bidding platforms, realizing the entire paperless process from announcing tenders, selling procurement documents, electronic bidding responses, remote bid opening, online evaluation, online clarification and public announcement and document archiving. By the end of 2023, the platform had fully encompassed a total of 13,665 suppliers at all levels, and cumulatively implemented over 20,000 procurement projects.

In terms of procurement, the Company efficiently utilized comprehensive material e-commerce platforms, and established a convenient and efficient integrated material procurement process through digital management and intelligent supply chain collaboration. The Company encouraged the purchase of green products and selected materials and products that were more environmentally friendly and met green standards.



Procuring new green environmental protection equipment to promote low-carbon development of the industry

The Company continued to explore the use of green environmental protection equipment, and procured new outdoor power supply supporting equipment including outdoor power supplies and outdoor batteries, which adopts natural heat dissipation and does not need cabinets (boxes), air conditioning temperature control and other facilities required by traditional power supply supporting equipment. The overall conversion efficiency of the system was high. Furthermore, it adapted to the customer-oriented C-RAN (Cloud Radio Access Network) site construction strategy in a more green and environment-friendly way, which was in line with the national green, low-carbon, energy-saving and emission-reducing development concepts. In 2023, the Company had cumulatively purchased a total of 53,000 sets of new outdoor power supply supporting equipment across the country, including about 23,000 sets of outdoor power supplies and about 30,000 sets of outdoor batteries.

Sharing Promoting Development and Motivating Green Vitality

Jointly Constructing a Green and Beautiful Ecology

China Tower actively practiced the national green development policies and was committed to integrating the concept of environment-friendly construction ecology into the process of construction and production.

In terms of site selection, the Company fully considered local municipal planning, key project planning, environmental protection requirements, and maintained close coordination and communication with relevant departments to ensure that site planning and operations comply with local environmental protection and sustainable development standards. In terms of construction, the Company paid great attention to the potential impact of the construction of towers and server rooms on the environment, making every effort to implement pollution prevention and control measures during the construction process, and achieved a harmonious integration of construction and ecological environment through the plan upgrade and technology advancement.



The "disappearing" tower station assists the development of smart ecological cities

To promote the construction of eco-friendly cities and encourage the coexistence of buildings and the ecological environment, China Tower actively adopted strategies such as land layout adjustments to ensure a beautiful and clean urban appearance.

In Zhengzhou, Henan Province, the Company integrated the construction of telecommunication base stations into the urban micro-landscape to create a "towerless" 5G private network solution for the financial island. Despite not being able to see a single base station across the entire island, it is able to support 150,000 people with a 5G+ smart lifestyle.



● In Zhengzhou, Henan, the construction of telecommunication base stations had been integrated into the urban micro-landscape



● Integration of telecommunication base stations with lakeside natural landscapes in Dazhou, Sichuan

In Dazhou, Sichuan, the bionic tree base station built by the Company integrates seamlessly with the natural surroundings by the Lotus Lake. While enhancing the allure of the scenic area, it also offers tourists rapid and convenient communication services, thus crafting a comprehensive, beautiful, and harmonious natural experience.

Sharing Promoting Development and Motivating Green Vitality

The Company supports the creation of a green and sustainable beautiful ecological environment through the provision of digital services like visual perception, data collection, image analysis, and information processing, all based on visual perception from elevated positions.



Comprehensive monitoring system with "Sky Eyes", contributing to a green and beautiful ecological environment

China Tower responds to the national initiative of building an intelligent ecological environment monitoring system that integrates aerial and terrestrial components. By leveraging the capabilities of digital intelligence, China Tower contributes to the development of monitoring systems in diverse ecological fields across the nation.

In Sichuan, the Company has established 956 high-point monitoring points around 234 national and provincial water control stations and 259 national and provincial air control stations. Additionally, 606 monitoring points for straw burning have been set up in 83 key districts and counties of 15 cities, and 1,642 high-altitude video surveillance points have been constructed in 20 industrial parks within the province. The Company has achieved unmanned surveillance, intelligent analysis, automatic evidence collection, and alarm warning for open-air incineration activities, providing robust data support and functional assistance for refined and grid-based management of ecological environment, and serving the local ecological environment protection and atmospheric pollution control.



● High-altitude video surveillance screen of Sichuan and Chongqing



● Monitoring screen of the Yangtze River water area in Hubei



● Dynamic monitoring screen of Anhui fishery administration

The Company utilizes the full area visual perception network and the "water, land, and air" real-time dynamic monitoring system of fishery administration in Yangtze River Skynet to focus on green and beautiful ecological protection in Hubei, Anhui and other places. Through unified management and resource sharing, the Company achieves integrated supervision throughout the city and intelligent tracking of suspicious behaviors in water areas. Using technologies such as big data, artificial intelligence and 5G, real-time early warning of ecological monitoring will be realized and the fishery law enforcement will be upgraded, so as to improve the ecological monitoring and protection of local aquatic animals, and solidly promote the work of "Yangtze River Protection".

In the Qilian Mountains Nature Reserve in Qinghai, the Company has constructed 158 kilometers of transmission optical cables, built 7 iron towers in forest area, equipped with 8 sets of wildlife monitoring pan-tilt-zooms, 8 anti-theft cameras, 20 infrared cameras, and supporting equipment. Relying on high points, the Company has built a high-definition intelligent front-end system to intelligently identify and timely warn wild animals, people, vehicles, fireworks, and other elements, providing strong support for the protection of biodiversity and ecosystem in the Qilian Mountains Nature Reserve.

Sharing Promoting Development and Motivating Green Vitality



Intelligent monitoring of marine debris to safeguard the oceanic ecological environment

China Tower focused on achieving the high efficiency and full coverage of intelligent monitoring in environment field. In Fujian Province, the Company established the first intelligent monitoring project for sea drifting garbage in China relying on the coastal base station resources, built 132 high-point AI intelligent monitoring cameras in total covering 500 kilometers key coastal areas, developed and deployed AI algorithms to achieve the multiple factors intelligent identification and analysis of sea drifting garbage and addressed the pain points of difficulties in sea drifting garbage supervision, obtaining evidence and cleaning by means of closed-loop management of emergency reporting, order dispatching, order handling, collecting, feedback and assessment, helping the digital and integrated governance of sea drifting garbage to build a beautiful gulf.



Monitoring picture of sea drifting garbage in key coastal area of Fujian





A scenic landscape featuring a wide river in the foreground, with a small boat with a canopy and an outboard motor. The background shows misty, karst-style mountains under a golden sunset sky. Two overlapping orange circles are positioned on the right side of the image, serving as a design element for the text.

Society

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Sharing Empowering Innovation and Grasping the Pulse of the Times

Data Presentation of China Tower

- The aggregate number of telecommunication towers construction projects: over **4.0 million**, including the 5G base station projects: **2.374 million**, tenancy ratio: **1.79 households/station**
- The number of "digital towers": over **210,000**, the number of industries served by Smart Tower: over **40**
- Serving users of battery exchange business: **1.145 million**;
- Total number of employees: **22,994**, percentage of female employees: **27.81%**, representing an increase of **0.57 percentage point** compared to that of 2022
- Average training hours per employee: **128.7 hours**, representing an increase of **20.6%** compared to that of 2022
- Support personnel for emergency relief and important activities throughout the year: **641,000**, vehicles: **324,000**, diesel engine generators: **554,000**
- The number of youth volunteer organizations established: **338**, the number of volunteer service activities carried out: **1,127**



Sharing Empowering Innovation and Grasping the Pulse of the Times



Sharing Win-win Digital and Smart Future

Sharing is the value and mission of China Tower. China Tower, closely focusing on the strategic layout of “One Core and Two Wings”, has always held high the banner of sharing, and has made every effort to promote the co-construction and sharing of information and communications and digital infrastructure, help strengthen the foundation of digital intelligence development, promote the social sharing of “Digital Tower”, and bravely undertake the mission of serving digital governance and empowering thousands of industries, deepening the sharing of energy applications, and serving the green and low-carbon transformation of the telecommunications industry and social livelihood.

Internet Access Assists to Go Through Information Artery

Based on its responsibilities as the “national team” for the construction of telecommunications infrastructure and the main force for 5G infrastructure, China Tower has injected acceleration into the 5G infrastructure, and has written a new chapter for China to build the world’s largest mobile broadband network with the best quality.

As of the end of 2023, the Company

- Accumulated completion number of telecommunication tower construction projects: over 4 million
- Cumulative number of 5G base station construction projects: 2,374 million
- Tenancy ratio: 1.79 households/station, up from 1.74 households/station at the end of 2022
- Accumulated coverage area of buildings: over 10 billion square meters
- Accumulated coverage of high-speed railway and subways mileage of distributed antenna systems: over 24,000 kilometers
- Number of difficult sites solved for three TSPs throughout the year: 8,210

Strengthening Comprehensive Coverage and Promoting Network Reach Everywhere

China Tower, in cooperation with TSPs, has continued to strengthen 5G network construction and deployment, and promoted dedicated campaigns such as “Signal Upgrade” and “Broadband Frontier”, and striven to improve network coverage in remote areas while helping urban areas achieve continuous 5G coverage, and have promoted a more balanced layout of mobile broadband networks in urban and rural areas in China, so as to achieve the goal of “wherever there are people, there are telecommunication towers”.



- Situations of base stations construction works carried out in remote areas such as Garze, Sichuan

Sharing Empowering Innovation and Grasping the Pulse of the Times



Promoting construction of base stations for islands and coastal areas to boost 5G "Sailing at Sea"



● Base station in Jigu Reef Island in Shanghai

In response to the national strategic requirements for accelerating the construction of a "Broadband Frontier", China Tower fully supported the network coverage in frontier towns, rural areas and islands. In 2023, the Company overcame various difficulties such as complex water conditions, variable weather environment, and lack of wharf facilities, successfully completing the construction of 5G base stations on three islands, including Jigu Reef outside the Yangtze River estuary. It marked the end of the historical lack of public network connectivity, unstable networks and absence of 5G coverage in the waters of the Yangtze River estuary. The "5G lighthouses" are built to illuminate the path of digital transformation in the Yangtze River Delta region.



Building strong and secure 5G infrastructure to enhance connectivity in frontier regions

China Tower fulfilled its corporate responsibility of building strong and secure frontiers by actively promoting 5G construction along the frontier regions, helping improve the network supply capabilities in frontier regions. In 2023, the Company planned to establish over 840 sites in Heilongjiang and built a total of 2,000 telecommunication base stations. It achieved full 5G coverage in cities at the northern frontier ports of China, as well as continuous 4G and ongoing 5G coverage along all frontier roads, thereby laying a solid foundation for the development of the digital economy industry and national defense security in Heilongjiang.



● 5G base station in frontier region of Heilongjiang

Deepening Network Coverage and Coordinating Industry Advancement Together

China Tower continuously improved the new 5G construction mode of "government-led, China Tower coordination, industry collaboration, social support, co-construction and sharing", and collaborated with the TSPs to carry out the joint construction of indoor distributed antenna systems (DAS) for 5G networks in urban core areas, important functional areas, large residential areas and key venues of buildings and public transportation, reducing the difficulty and overall cost of the construction of 5G networks, overcoming hurdles in site planning, and ensuring continuous outdoor coverage and optimized indoor coverage for 5G networks. As of the end of 2023, the Company had resolved difficulties for 8,210 challenging sites for three TSPs.



Consolidating the digital and intelligent foundation of the Central Plains to empower its development

To serve Henan Province's purpose of "Revitalizing Central China", China Tower has reinforced the coordination of its resources and sharing among industry peers to consistently promote the upgrades of the new infrastructure such as distributed antenna systems in Henan Province. In 2023, the Company undertook a packaged project to build and reengineer 11 subway lines in Henan Province. To implement the project, we optimized the plan to develop key scenarios in tunnels, fully shared professional knowledge applicable to a subway project in fields such as wireless network, transmission, and power supply, and launched innovative products including single MIMO cable technology solution and cross-polarization leaky coaxial cable. All these efforts have efficiently solved the difficulty in achieving network coverage for 5G-based distributed antenna systems in the tunnel scenarios and ensured a quality and stable network, consolidating the digital foundation for Henan Province to realize its vision of "Revitalizing Central China".

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Delivering Better Network Experience and Making the Best of 5G to Drive the Growth of Multiple Industries

Leveraging its strengths and based on the needs of the country and its customers, China Tower has promoted the expansion of 5G networks in breadth and depth. As a result, people’s experience and perception of 5G network have been enhanced on all fronts and “5G+” scenarios have been diversified, and with their increasingly remarkable “multiplier effect”, 5G networks have become a new engine of domestic demand expansion, consumption potential unleashing, and economic growth driving.



“Signal Upgrade” in action, boosting the digital and intelligent upgrades of the cultural tourism industry

With the recovery of the tourism market and the changes in consumer needs, 5G-based new infrastructure has ushered in a digitalized, networked, and intelligent tourism industry. China Tower constantly enhances the network coverage in scenic areas, museums, holiday resorts, and large venues. Particularly, China Tower has facilitated tourists and visitors to watch 4K/8K videos, use smart guides to visitors, and experience VR/AR-enabled immersive tourism and supports other applications in scenic areas.

In Beijing Municipality, the Company conducted a campaign to make technological breakthroughs for 5G network coverage in cultural tourism scenarios. The Company has completed the 5G network coverage projects for 16 key cultural and tourism venues such as the National Library of China, the Palace Museum, the National Centre for the Performing Arts, and the National Natural History Museum of China, which have achieved a better network coverage and an enhancement of the quality of network coverage.

In Chongqing Municipality and Shandong Province, giving full play to its extensive site resources and advanced Tower Monitoring technology, the Company has been broadcasting some featured landscapes to the audience from all corners of the country including the junction of the Yangtze River and Jialing River, the lights trail travelling among buildings, the ferris wheel named Eye of Qin Island (琴島之眼), and the sunrise scenery on Mount Tai at the selected sites for slow streaming. With these unique and fantastic urban landscapes and natural landscapes, the Company has injected momentum and energy into smart cultural tourism and added a touch of color to people’s beautiful life.



● 5G network coverage in the exhibition hall of the National Natural History Museum of China in Beijing Municipality



● “Catching the sunrise” on Mount Tai in Shandong by slow streaming

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Serving by Digitalization and Intelligence Empowers Good and Intelligent Social Governance

As the new-generation information and technology accelerated to integrate into various industries, computing power is becoming the new engine that unlocks the potential of data element and drives the economic and social digital transformation. China Tower gives full play to the existing edge computing power resource endowment by leveraging more than one million distributed server rooms to transform “telecommunication shelters” into “digital shelters”, support the improvement of the public computing power layout and promote to pilot the business including the distributed storage, industrial interconnection, 5G connected-car, edge side rendering, edge AI inference and virtual reality continuously. It puts great efforts in strengthening the key technologies such as the computing power networks and computing power scheduling and sets up cross-domain distributed computing power networks testing bed, and verifies the feasibility of cross-province and long-distance access of edge node to the center node. Through establishing the centralized management technology verification platform of edge computing power, it initially achieved the unified presence and management of distributed edge computing power resources, and scheduling on demand.



Promote the implementation of the intelligent computing applications, and integrate into “the circle of friends” of computing power

In Shanghai, the Company proactively responded to the “Computing Power Pujiang” (算力浦江) action plan issued by Shanghai Communications Administration and renovated 6 existing 5G DAS server rooms into high-performance edge data centers on demand targeting at the intelligent computing fields, to provide the intelligent computing equipment of customers with edge infrastructure sharing services, which were used in the computing power business under the scenarios such as AIGC, edge inference, design rendering, cloud-based game. In 2023, the Company achieved the interconnection between the mid-end of computing power of China Tower and Shanghai computing power trading platform and entered the Shanghai Computing Power Society (上海市算力協會), the establishment of which was advocated by the Shanghai Municipal Commission of Economy and Informatization, and actively integrated into “the circle of friends” of computing power to jointly lay the foundation for computing power and build a future of digitalization and intelligence.

China Tower is devoted to serving the strategy of “Digital China”, promotes “multiple use of one tower”, makes full use of the site resources characterized with “numerous and wide-spread site coverage, high-point monitoring capacities as well as complete supporting facilities (點多面廣、站高望遠、配套齊全)” and professional operational advantages to build the “tower monitoring” platform, and builds the “space, sky, ground” full-domain perception network by the integration and innovation of “Tower + Big data + AI”, and installs all industries with “Clairvoyant (千里眼)”, “Clairaudience (順風耳)” and “Smart Brain (智慧腦)” by means of “digital towers”. As of the end of 2023, more than 217 thousand “digital towers” extensively served over 40 key industries related to national economy and people’s livelihoods to inject intelligence into and empower the digital governance.

As of the end of 2023, China Tower served the national economy and people’s livelihoods in various industries and fields:

- In the field of forestry: more than 50 thousand points covered 0.5 million square kilometers key forestry monitoring;
- In the field of environment protection: more than 32 thousand points covered 0.48 billion mu of farmland to strengthen the supervision of straw burning;
- In the field of ecology: it served the information construction of 51 nature reserves and 37 wetland reserves in China;
- In the field of water conservancy: 11 thousand points covered 4,700 key river areas and 2,300 reservoirs in 29 provinces;
- In the field of emergency: more than 10 thousand earthquake monitoring stations helped 30 provinces nationwide to achieve quick earthquake reports;
- In the field of agriculture: 15 key provinces along the Yangtze River Basin were constructed with more than 6,500 video monitoring points and radar surveillance points, covering fishery ban waters of more than 400 key districts and counties along the Yangtze River;
- In the field of transportation: 3,300 points covered 10 thousand kilometers roads of 17 provinces;
- In the field of land: more than 50 thousand points protected nearly 0.1 billion mu of farmland in 18 provinces;
- In the field of politics: more than 3,300 monitoring points assisted nearly 9,000 kilometers railway road protection in 20 provinces.

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The Digital Towers Empower the Beautiful Ecology

“Harmonious coexistence between human and nature” is the strategic task of the ecological civilization construction of China in the New Era. Relying on the “digital towers”, the Company achieved the application in multiple fields including air, water, prevention and control of land pollution and ecological protection to serve the national strategies and key projects and become the strong force for supporting the environmental protection in China.



Protect the beautiful home in different perspectives with “space-ground integrated” intelligent monitoring

China Tower utilized the cloud computing, big data and AI intelligence, Internet of Things, video monitoring, intelligent cloud broadcast, 5G and other new technologies to enhance ecological environment monitoring ability and help the construction of ecological civilization.

In Xiamen City, Fujian Province, the Company explored and developed the “rural sewage treatment net (農村污水治理一張網)” supervision platform and utilized the towers to mount video monitoring equipment in high position, and provided surveillance and monitoring services for 153 sewage treatment stations by adopting AI+AR sewage brain management and unmanned inspection automated processing system, achieving the refined and intelligent operation of equipment in rural distributed sewage treatment stations.



“Rural sewage treatment net” supervision platform in Fujian

In Jining City, Shandong Province, the Company established 90 video monitoring points in Sishui County, comprehensively conducting surveillance over the minerals, land, farmland and other natural resources day and night to improve the governance of natural resources.

In Jixi City, Heilongjiang Province, the Company cooperated with the local department of water resources to develop the “cloud intelligent water management” project and develop digital twin, sand excavation and digital river inspection and other functions by leveraging 23 video monitoring points and intelligent remote river inspection technology, assisting the government and department of water resources in keeping abreast of the ecological changes on a real-time basis and realizing the ecological protection of reservoirs and safe surveillance.



River monitoring image of “cloud intelligent water management” platform in Heilongjiang

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Digital Towers Safeguard the Social Security

"Reaching a higher level in building a peaceful China" is the foundation of fully building a modern socialist China and achieving the great rejuvenation of the Chinese nation. Relying on the "digital towers", the Company provided risk prediction, early warning and precaution and other application services in the fields of forestry fire prevention, flood control, earthquake prevention and disasters mitigation and urban natural gas pipelines, to give a solid guarantee for safeguarding the people's lives and property.



Make an all-out effort to safeguard the society with digital service emergency surveillance

China Tower proactively responded to the national call of coordinating development and security, extensively applying the site of towers and ancillary facilities into emergency safety fields and providing digital services support for multiple scenarios.

In terms of flood control and typhoon resistance, the Company counted on the site resources and advanced technologies to help with flood control and typhoon resistance. During the typhoon "Khanun" and typhoon "Doksuri" period, the Company fully capitalized on the tower monitoring equipment to provide information support for provincial governments at all levels in respect of flood control and disaster rescue and carried out video monitoring over the disaster condition of Sichuan, Inner Mongolia, Shandong and other key provinces, and flood season of Yellow River, Yangtze River and Huaihe River and other 7 basins, helping the disaster scene to conduct emergency command and dispatch in combination with big data platform of towers and strongly safeguarding the people's lives and property.

In terms of supervision of oil and gas pipelines, the Company fully took advantage of the high-point site resources and provided the intensive supervision methods by means of high-altitude observation equipment and unmanned aerial vehicles to effectively prevent the occurrence of punching holes and pouring oil, construction failure and heavy car crushing.

In terms of satellite positioning, the Company assisted the deployment of the national largest-scale Beidou high-precision land augmentation network, providing multi-scenario areas with centimeter-level, millimeter-level and sub-meter level displacement monitoring services and significantly improving the safety supervision and post-disaster evaluation capability of emergency industries while promoting the application and development of Beidou industry.

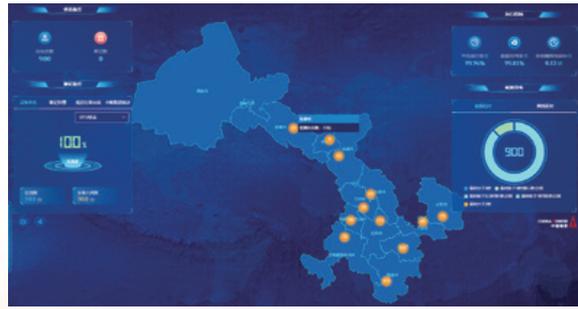
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Expand the earthquake early warning network and lay a solid foundation for disaster rescue and life protection

In order to support China's strategic objectives of comprehensively forming the national earthquake early warning capability in 2023, the Company continued to deepen its strategic cooperation with China Earthquake Administration and improved the operation and maintenance service management system of earthquake early warning stations, helping to realize the leap from minute-level quick reports to second-level early warnings and providing powerful guarantee for earthquake prevention and mitigation, emergency command and rapid rescue. As of the end of 2023, the Company constructed 10,349 general earthquake stations in 30 provinces across China, helping to build the world's largest earthquake early warning network.

In the 6.2 magnitude earthquake in Jishishan County, Linxia Prefecture, Gansu Province, within 50 kilometers of the epicenter, there are 71 general earthquake monitoring and early warning stations built and operated by China Tower, and the detection systems installed on the towers are able to detect the operation status of communication base stations, municipal power supply and other facilities and equipment in real time. The local emergency management department utilized the data of power outage and network outage from the towers to build a big data disaster assessment model, discovering the suspected disaster area and assessing the severity of the sudden disaster in the first time, so as to make the decision-making more efficient and the rescue more accurate, and to strongly guarantee the safety of people's lives and properties.



● The picture of operation in earthquake monitoring stations in Gansu

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Digital Towers Enable Intelligent and Integrated Governance

China Tower proactively served the strategy of “Digital China”, focusing on the demands of digital governance and continuously enriching, iteratively optimizing and researching and developing the application products in the industry, empowering a variety of scenarios such as encroachment of farmland supervision, garbage dumping supervision, cultural relics protection, and improving the comprehensive governance level in all aspects.



Science and technology assist farmland protection and empower the development of modern agriculture

“Reinforcing the foundations for food security on all fronts” is an important foundation of national security, and it is crucial to protect the red line of farmland and implement strict protection and management. China Tower developed a farmland protection platform, which deeply integrated natural resources business data and video collection network, and built a farmland protection supervision system of “high-altitude observation, intelligent judgment, on-ground investigation, and online management” to help protect farmland in many places. In Jingzhou City, Hubei Province, the Company utilized the tower resources around the central city, mounted high-precision monitoring equipment, integrated video, layer data, satellite film and other information into “one base map” to realize online automatic plot inspection, and used science and technology to help farmland protection and the development of modern agricultural industrialization and guarantee food security.



● Interface of natural resources intelligent supervision platform in Jingzhou City, Hubei

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Digitalization empowers cultural relics protection and technology protects the national treasure

Adhering to the cultural relics protection philosophy of respecting culture, cherishing cultural relics and inheriting the civilization, the Company fully applied video monitoring and AI intelligent identification technology to realize the overall visualization, real-time anti-theft, fireworks early warning, remote monitoring and automatic investigation to collect evidence within the protection scope and construction control zone of the cultural relic protection unit, and comprehensively improve the comprehensive capability of cultural relic protection. As of the end of 2023, the Company achieved 10% platform management and technology coverage in 5,058 national protection units in China.



● Image of cultural relic protection monitoring in Shanxi



Empowering rural management with information and communication, support regional development through co-construction and sharing

The Company is promoting the application of digital technology in the assisted areas, building communication base stations to ensure full network coverage, and providing solid technical support for rural governance. In Yunnan, the Company tailored a "digital villages" management platform for the Gangchang Village in Qujing, achieving comprehensive coverage of village affairs such as basic information of the village Party building, monitoring of key populations, forest fire prevention, and crop growth monitoring, improving the efficiency of basic management in Gangchang Village. In addition, the Company has built two 5G base stations in Gangchang Village to enhance signal coverage, providing a more stable and efficient information transmission and communication channel for rural governance.

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Energy Sharing Assists Green Low-carbon Development

China Tower implements the concept of green development, continuously strengthens the construction of the battery exchange and power charging infrastructure, actively explores the new energy vehicle power charging market, creates a comprehensive power backup solution, focuses on promoting "green energy, energy storage, energy conservation" business innovation in the telecommunication industry, deepens the sharing of energy applications, and serves the society for the convenience and benefit of the public.

Build low-carbon intelligent, convenient and safe battery exchanging and charging services. The Company actively seizes the development opportunities in the field of new energy, adheres to sharing and collaboration, fully utilizes core advantages such as abundant site resources, visible, manageable and controllable monitoring platform, and professional power maintenance service capabilities, deploys a large-scale battery exchange and power charging network, provides battery exchange services for food and parcels delivery drivers, and focuses on meeting the needs of the people by offering safe and convenient power charging services. It has become the largest battery exchange operator for light electric vehicles across China.

By the end of 2023, the Company's battery exchange business:

- Battery exchange network coverage: more than 300 cities in 31 provinces (municipalities and autonomous regions) throughout the country
- Service users: 1.145 million
- Driving distance of light electric vehicles: over 90 billion kilometers, equivalent to reducing carbon emissions by over 3 million tons

China Tower is committed to improving the level of rights protection for workers of "emerging businesses" such as parcel and food delivery drivers, by establishing a network of China Tower battery exchange to provide them with safe and convenient battery exchange services.



● The courier scans the code to use battery exchange service in Yingtan, Jiangxi

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Assisting safe power charging, building a civilized smart city

Based on its own resource advantages, China Tower is committed to handling practical matters for people's livelihood well and creating "projects of the heart". In 2023, the Company cooperated with the municipal government of Jiayuguan of Gansu Province to formulate the "Cooperative Plan for Advancing 5G and Smart City Construction" (《共同推进5G及智慧城市建设合作规划书》), planning to achieve complete coverage of the city's charging network layout in the next two years. They aim to build a "Tower Model" for urban low-speed electric vehicle charging travel that is "government supervised, enterprise operated, safe and convenient, and shared and win-win", in order to achieve orderly, safe, unified, and visible management of the city's new energy power charging infrastructure.

Creating quality, reliable, and professional power backup services. The Company actively expands the capabilities of power backup of communication base station to the public, focusing on clients of key industry and providing a comprehensive power backup solution of "Power Backup + Power Generation + Monitoring + Maintenance" for important events and conferences, thus safeguarding the healthy and stable development of the economy and society.

As of the end of 2023

- Service industry: seven industries including communications, finance, government, public security, medical, petrochemical and education
- Provide on-site power guarantee for major events and important economic and social activities: over 10,000 times



Ensuring power demand for "Village Super League" and exploring a new road for serving rural revitalization

China Tower actively provides power assurance services to meet villagers' aspirations for a better life. In 2023, the "Village Super League" events in Taijiang County and Rongjiang County of Qiandongnan Prefecture, Guizhou Province set off a boom in the whole country. The Company gave full play to its professional ability of telecommunications assurance and power assurance and made full efforts to provide emergency telecommunications assurance to ensure the power supply of the events. It dispatched 296 support persons, 148 vehicles, and 590 emergency diesel engine generators to further boost the Qiandongnan tourism "resort" brand.



● Guizhou "Village Super League" competition scene

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Accelerating to Release Innovative Driver

China Tower has deeply implemented the innovation and development strategy, gathered strength to make breakthroughs, optimized the mechanism to promote long-term development, reinforced the new advantages of high-quality development through scientific and technological innovation, enhanced scientific and technological empowerment, promoted digital transformation and upgrading, and steadily promoted the Company's scientific and technological innovation to a new level.

Optimizing System and Mechanism of Science and Technology

The Company continues to optimize the system and mechanism of scientific and technological innovation, adheres to the development strategy of openness, inclusiveness, mutual benefit and sharing, builds an excellent innovative ecology, and enhances its scientific and technological innovation capability in the opening up and cooperation.

Arrange "headquarters + provincial branches" collaborative innovation and fully leveraging on the top-down collaboration in innovation. China Tower actively integrates into the national strategic layout of scientific and technological innovation, continues to improve the scientific and technological innovation system, builds the collaborative innovation organization model of "headquarters + provincial branches", and launches 25 research and development projects of top-down collaborative innovation. The Company continues to improve the research and development project management, technological achievements transformation and other related systems to upgrade the Company's scientific and technological innovation.

Establish regional scientific and technological innovation centers. The Company has set up six regional scientific and technological innovation centers in Zhengzhou, Hangzhou, Chengdu, Xiong'an, Nanjing and Tianjin around the four dimensions of "localized talent advantage, local policy environment, local market environment, and R&D foundation of provincial companies" to properly conduct product research and innovation by focusing on product application and solutions in specific fields.

Establish a long-term working mechanism of "four lists". The Company focuses on the "four lists" of ability level, task items, resource allocation and achievement transformation, to promote the quantification, analyzability and evaluability of science and technology management. In 2023, the Company coordinated the promotion of 389 scientific and technological achievements such as hardware products, software products and algorithms, standards and patents, with the R&D investment increasing by more than 38%, the application for invention patents increasing by more than 47%, the authorized invention patents increasing by more than 200%.

Ability level list	Task items list	Resource allocation list	Achievement transformation list
Continue to increase investment in research and development, expand the scientific and technological team, and enhance the ability to produce high-quality scientific and technological innovation achievements.	Dynamically track key aspects, such as project initiation, implementation and completion, and promote orderly development of R&D projects.	Optimize the allocation of innovation resources, strengthen the integration of industry, universities and research institutes led by enterprises, and promote the deep integration of the innovation chain, industrial chain, capital chain, and talent chain.	Promote and dynamically track the transformation of scientific and technological achievements, and promote the transformation of research and development achievements into real productivity.

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Establish the “2456” achievement transformation model. The Company strengthened the application of scientific and technological achievements, and carried out the classified management, classified policies, working with aims, dynamic tracking, to improve the efficiency of the dissemination of results.

Bring together the innovation force of industrial chain. The Company held the first Science and Technology Innovation Conference to build a deep communication platform between the Company and the government, associations, industry-university-research partners. The Company carried out National Science Popularization Day activities, and held a series of activities such as conferences on the promotion of scientific and technological achievements, science and technology achievement exhibitions, science and technology lecture halls, and science popularization on the cloud to foster a culture of innovation and gather innovative forces.



The display of scientific and technological innovation achievements to spread and gather innovative forces

In 2023, China Tower held the first Science and Technology Innovation Conference, with the theme of “pursuing development with the science and technology, and sharing the future with innovation”, fully publicizing the Company’s scientific and technological innovation concept, demonstrating the effectiveness of scientific and technological innovation, and establishing academic exchange channels with academicians and well-known experts. The “China Tower 2022-2023 Annual Scientific and Technological Achievements Collection” was released at the conference, covering a total of 48 achievements in telecommunication technology, digital application technology, energy technology, and IT technology, fully demonstrating the outstanding results of the Company’s scientific and technological innovation leading development.



● 2023 China Tower first Science and Technology Innovation Conference site

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Make use of the leading role of collaborative innovation. The Company actively participates in the preparation of technical standards and specifications of the industry. By the end of 2023, the Company has successfully participated in the compilation of 3 national standards, edited 10 industry standards, and participated in the compilation of 38 industry standards, contributing to the technological innovation and standard development of the industry.

Strengthen strategic cooperation among industries, universities and research institutes. The Company actively promotes strategic cooperation in scientific and technological innovation, participates in industry exchanges, signs a number of strategic cooperation agreements with universities and scientific research institutions, builds innovation platforms such as joint laboratories and innovation application demonstration bases, carries out in-depth cooperation in multiple fields, establishes collaboration mechanisms, jointly cultivates industrial resources and shares development results.



Bringing together the strength of scientific and technological innovation and sharing the development results through cooperation

In 2023, the Company signed a strategic cooperation agreement with Peking University and Beijing Institute for General Artificial Intelligence to build the Joint Laboratory of Intelligent Society and Space Governance, and carry out cooperation on industrial large-scale models, general artificial intelligence technology research and major scene demonstration applications. The Company signed a strategic cooperation agreement with China Academy of Industrial Internet to carry out all-round and multi-level cooperation in the fields of industrial big data industry research and application, promoting technological innovation, building exchange and interaction platforms, and promoting commercial password application technology innovation and detection and evaluation to gather innovative forces.



● The opening ceremony of the Joint Laboratory of Intelligent Society and Space Governance

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Advancing the Research and Development Challenges in Scientific and Technological Innovation

The Company continues to increase investment in scientific and technological innovation and research efforts, with the core of "facing the world's scientific and technological frontier, facing the main battlefield of economy, facing the needs of production and operation, and facing the actual needs of customers", to forge independent innovation capabilities in an all-round way, and to empower the Company with high-quality development through scientific and technological innovation achievements.

The Company's 2023 scientific and technological innovation achievements (excerpt):

- **In terms of TSP business**, the Company closely focuses on 5G network technology and product innovation, such as the development and application of the second generation of a range of 5G-compatible passive DAS products, shared high-gain wall attachment and lens-type tunnel antenna products, and low-cost tower mast standardization products, to provide comprehensive technical support and solutions for 5G network deployment.
- **In terms of the Smart Tower business**, the Company actively carried out the innovation of the tower monitoring platform, promoted the completion of the algorithm optimization training platform and sample library, accumulated 53 kinds of independent research and development control algorithms, and released 16,000 camera application products.
- **In terms of the energy business**, the Company successfully completed its first provincial and ministerial scientific research project "Electric Bicycle Intelligent Detection Charging and Replacement System and Equipment Research and Development and Demonstration Application", launched a new 4.0 battery, green 4.0 power exchange cabinet and other products, to create a low-cost, high-performance vehicle electric cabinet integration solution.
- **For its own production and operation**, intelligent technology is widely used in various production and operation links, such as adopting the "terminal-edge-cloud" technology architecture to centralized monitoring and managing of millions of sites, and the introduction of electronic electricity management schemes, to improve the level of fine management.

Science and technology awards 2023 (excerpt):

- The project of "Innovation and Application of Low-carbon Energy Technology for Wireless Telecommunications Base Station" won the first prize of Science and Technology Award of China Institute of Communications in 2023
- "'Direct supply, light storage integrated' Communication Base Station Energy Saving and Consumption Reduction Solution" and other innovative projects won several awards in the first "New Green Cup" Innovation Competition for Enabling Carbon-To-Peak Carbon Neutrality in the Information and Communications Industry
- "China Tower Data Audit One-stop Service Platform Research and Development Project" won the "Golden Sands Award" for the Best innovative Application in the operators' sector in the 2023 Big Data and Digital Economy Conference
- "Key Capacity Building and Application of China Tower Data Security Platform Project" won the IDC "China Top 20 Outstanding Security Projects" at the IDC 2023 CSO Global Network Security Summit
- "Metadata-driven Innovation and Practice of Enterprise-wide Business Data Governance System" won the first place in the "Intelligent Data Governance Application" group of "Data Intelligence Cup" Data Management Innovation Application Competition held by China Electronic Information Industry Federation in 2023

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Leading Digital Transformation and Upgrading of Enterprises

The Company integrates digital technology fully into every production and operation link, establishing an operating system that is professional, intensive, delicate, efficient, and digitalized, where “digital” runs throughout the operating system, in order to improve management standardization and service quality, and promote the transformation and drive the transformation and upgrading of the Company to a quality and efficient enterprise.

Digitalization empowers production and operations and boosts production efficiency. By attaching labels during manufacturing and scanning codes at the source, the Company assigns a unique “digital ID” to each product. An all-encompassing code is provided for the whole lifecycle from procurement to asset disposal, ensuring data generation at the source and facilitating global sharing. Utilizing a single code for asset tracking management, we craft end-to-end, highly efficient asset operation capabilities; by adopting a “terminal video capture + cloud AI computing + edge AI computing” model, we have built an intelligent operation and maintenance platform. This allows for automatic and remote management capabilities, as opposed to on-site manual operations, achieving centralized monitoring over millions of site locations nationwide and establishing automated operation and maintenance capacity founded on production and technical management, supplemented by human oversight.

Digitalization empowers lean management and enhances compliance and safety. Every business system within the Company uses the same site/project data model to accurately collect assets, incomes and costs by physical site/project to empower lean management. The Company’s regulatory platform integrates seamlessly with the enterprise procurement management system, automatically identifying and alerting high-risk procurement scenarios, which enhances procurement compliance and control capability. We also create a comprehensive and intelligent safety management platform, implementing a “snap reporting” feature and a safety briefing system with a “double punching” mechanism to improve process safety management. Implementing comprehensive Tower Captain System management, we include data for “full sites, full offices, full construction projects, full cooperative units, full equipment and facilities and full storage warehouses” into cloud platform management, improving our work safety management capacity.

Digital applications of emerging industries builds core competitiveness. The Company gradually constructs an IoT industry chain at the mid- and high-point with “digital towers” as the intermediary, facilitating pervasive connections among people, machines and materials across various sectors. By deepening algorithm research and advancing the construction of key AI laboratories, we establish a domestic leading AI algorithm ecosystem for mid- and high-point scenarios, thus generating diverse training environments to improve algorithm accuracy and secure core capabilities. We expand the comprehensive energy-saving industry applications, develop a smart energy platform, build an intelligent platform model, continue to create high-quality products and services, and expand brand influence and core competitiveness.



Intelligent operation and maintenance + asset operation monitoring mode enhances work efficiency

The Company adopts the “terminal-edge-cloud” technology architecture to build an intelligent operation and maintenance platform and a distributed video surveillance platform, using edge AI computing and cloud AI computing to realize centralized surveillance and management over millions of site locations nationwide. By leveraging camera surveillance, the Company achieves efficient remote inspections and automatic fault identification. The independently developed AI algorithms are applied alongside such video algorithms as electronic fences, human detection and facial recognition to facilitate station access reviews, supervision functions, and automatic assignment processes. Intelligent inspections and automatic assignment accuracy rates are both over 95%, significantly boosting the operation and maintenance efficiency of the Company.



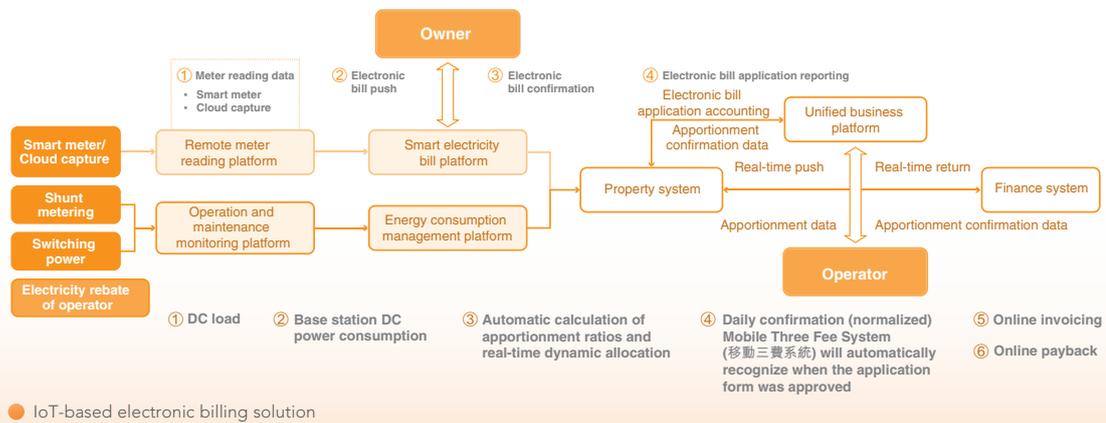
● “Terminal-edge-cloud” technology architecture

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Electronic billing solution improves fine management capabilities

The Company has developed an IoT-based electronic billing solution, successfully achieving real-time data collection, automated reporting, intelligent expense accounting, dynamic allocation, online reconciliation, electronic invoicing and precise billing clearance for the electricity consumption for the operation of over 2 million site locations, without the need for manual intervention. This innovative solution further enhances the level of fine management of electricity costs, strengthens the business model of base station sharing, reduces electricity cost management risks through online control, and realizes cost reduction and efficiency improvement in synergy with the industry.



Caring for Employees to Achieve Development

Adhering to the “Talents Make Business Strong” strategy, China Tower regards talent as the first resource of driven innovation and assured development, created a favorable environment for excellent talents through the formulation of a comprehensive talent development plan, talent training and incentive mechanism, and the strengthening of staff communication and care and other measures to promote the growth of employees with the Company.

Protecting the Rights and Interests of Employees

The Company strictly followed the Labor Law of the People’s Republic of China, Labor Contract Law of the People’s Republic of China, Social Insurance Law of the People’s Republic of China, Provisions on the Prohibition of Using Child Labor and other laws and regulations. It has formulated and continuously improved the relevant systems of employee recruitment, training, attendance, etc., and improved and optimized the management in staff recruitment and dismissal, remuneration and welfare, attendance and performance, working hours and vacation. The Company strictly prohibits the use of child labor and forced labor. If any violations related to the use of child labor and forced labor are found, they will be promptly handled in accordance with legal and regulatory requirements. No cases of using child labor or forced labor occurred in the Company this year.

Diversity and equal opportunity

The Company is committed to promoting fair employment and providing equal employment opportunities to employees without being affected by factors such as race, age, gender, ethnicity, religious belief, etc. in the recruitment process. The Company insists on treating everyone in the Company in the same way, treating employees fairly and equally, does not distinguish remuneration based on gender, and creates a workplace environment of equal opportunity, anti-discrimination and diversity.

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Attract and gather talents accurately

The Company increases efforts to attract outstanding talents and enriches channels to attract talents. The Company was awarded the “Award for Best Employer of the Year in China” (中國年度最佳僱主獎) and “Award for Campus Recruitment Case” (校招案例獎) by Zhaopin for five consecutive years from 2019 to 2023, and was awarded the “China Model Employer Award” (中國典範僱主獎) by 51job, Inc. for four consecutive years from 2020 to 2023.



Attract talents by various measures, expand employment opportunities through multiple channels

China Tower held the 2024 Autumn Campus Job Fair, conducted publicity activities, combined campaign, garden party and mutual selection, introduced interactive links such as checkpoints, collecting likes and cultural and creative ice cream, deeply communicated with graduates in a rich and interesting form, shared the corporate strength, talent planning and the concept of humanistic care of China Tower.

In 2023, the Company published online recruitment campaign on major recruitment websites, the videos were played over 88 thousand times, vertically publicized for 96 target colleges and universities through online recruitment channels, reaching over 576 thousand candidates.



● Campus recruitment poster in the autumn of 2024



● Campus recruitment cultural and creative ice cream



● Campus campaign site

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Enrich the remuneration incentive system

The Company adhered to the principle of market-oriented remuneration and performance as the orientation, continuously improved the remuneration incentive and welfare system, provided performance-based variable remuneration structure for all employees, carried out the restricted share incentive scheme for the management and core technical talents who made positive contributions to the Company's overall performance and sustainable development to encourage employees to improve their work performance and substantive contribution.

In accordance with the standards of relevant national laws and regulations, the Company established a comprehensive medical insurance system, which is based on basic medical insurance and supported by supplementary medical insurance, critical illness insurance and personal accident insurance, covering all employees, enhancing employees' sense of belonging and happiness.

Carry out democratic management

China Tower deeply implemented the value concept of "employee-oriented", regularly held employee representative conferences, dealt with all proposals in a closed loop in accordance with the principle of "division of responsibilities by level with centralized management", widely conducted research forums, earnestly protected the employees' rights to know, to participate, to express and to supervise.

In 2023, the Company carried out "Secretary Communication Day" activities, party secretaries of provincial branches had a total of 750 conversations with employees; established online and offline "Through Train" for public opinions, receiving a total of 902 suggestions from employees, and replied to the comments and suggestions at once; continued to innovate, improve, and implement working mechanisms for serving the grassroots and connecting with the masses, leadership team at all levels visited the grassroots for 1,047 surveys and conducted 6,765 on-site heart-to-heart talks.



● The Company's party secretary communication day site



● Jiangsu branch secretary reception day site



● Anhui Lu'an branch secretary reception day site



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Practicing Humanistic Care

China Tower attaches great importance to the physical and mental health of its employees and provides them with comprehensive benefits and a safe working environment, which enhances employees' sense of belonging and security.

Enhancing employee welfare

China Tower organizes a variety of cultural and sports activities for employees, and continues to provide humanistic services such as employee assistance, regional small homes, and caring for women, so as to effectively create a working environment with a balance between work and life.

Employee activities

The Company organized the second China Tower Table Tennis Competition, and participated in the China Communications Sports Association Balloon Volleyball Competition, National Aerobics Competition, Futsal Competition, Table Tennis Elite Competition and other cultural and sports activities to enrich the leisure life of employees.



● "Meifu Cup" Aerobics Exhibition Match



● Table tennis competition



● Badminton competition

Employee assistance

The Company carries out a heart-warming care project, providing visits and condolences to employees who face difficulties in family life or encounter unexpected situations. It also provides care services such as natural disaster assistance and poverty relief, encourages employees to make donations to help employees in difficulty. Certain subsidiaries have established "Mutual Aid Funds" to provide in-depth assistance to employees in need to solve their urgent problems. In 2023, the trade unions at all levels of the Company have carried out a total of 197 mutual aid and love activities.



● Condolence to frontline flood prevention employees by Henan Branch



● Trade Union visited sick model workers

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Staff home

The Company promotes the construction of staff homes in branches with the conditions, supplements and improves various items and facilities necessary for regional life and emergencies, so as to create a cozy and comfortable living environment for employees.



● Staff home



● Staff canteen

Caring for women

The Company equips female employees with facilities such as baby care rooms, and helps female employees relieve various pressures to improve their physical and mental health through female employees activities and psychological counseling for female employees.



● Baby care room of Shandong Branch



● Flower arrangement activity for female employees of Qinghai Branch



● Women's Day activity for female employees of Hainan Branch

Ensuring personnel safety

China Tower earnestly implemented the Healthy China strategy, strictly abided by the Prevention and Control of Occupational Diseases Law, carefully implemented the entity responsibilities of occupational disease prevention and control, and effectively protected the life, health and safety of employees by regularly organizing and conducting various employee health protection activities such as physical examination, self-help and mutual aid training, popular science lectures, and employee mental health care. In 2023, the Company's trade unions at all levels carried out psychological assistance and counseling in various forms for a total of 177 times, to ease the pressure of life and work for employees, and to effectively improve their mental health level.

Based on the protection of its personnel health and safety, the Company stayed on course for the implementation of safety protection measures for its partners' employees, continued to regulate and strengthen management of cooperative units, and promoted cooperation units' good practices of safety production on all fronts.

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Supporting the Development of Employees

The Company regarded talents as the primary resource to lead the development, continued to further shape a landscape of “Election, Education, Deployment and Retention” for existing employees and the “Recruitment, Training, Management and Application” practices for new employees, and promoted the talent advantage into the driving force of its high-quality development.

Building three professional teams

The Company continued to build three teams composed of managerial and administrative personnel, scientific and technological personnel, and professionals to improve the comprehensive capabilities and value of employees. The Company reinforced the managerial talent team, forging high-quality and professional operation capacity; cultivated a team of scientific and technological talents, and fostered the ability to make breakthroughs in technological innovation; and built a team of professionals and upgraded the professional capacities of front-line personnel.



Carrying out management team leadership training to empower the Company to develop a strong foundation

In 2023, the Company implemented the “Empowerment Plan” for the management team, held a total of 9 training courses for the management member of branches at prefecture-level cities and offered trainings to 695 trainees in total, so as to expand the vision pattern, strengthen strategic thinking, innovate management methods, and improve the leadership of management members.

Building a grass-roots operational team

To improve the regional operation ability, the Company organized to carry out the “Soldier General (士兵將軍)” training camp for improving the competency of regional managers, with a goal of “one year improvement, two years consolidation and three years reinforcement”, and was designed to build a grass-roots operational team with strong professionalism, systematic knowledge structure, advanced managerial concepts, a strong sense of mission and efficient execution.



Special training of front-line managers to build regional professional teams

In 2023, the Company launched 4 series of “Soldier General (士兵將軍)” training camps in total for improving the competency of regional managers, which trained 719 trainees, focusing on political quality, level of management, expertise, and operational capacity to fully empower front-line business backbone.



● The “Soldier General (士兵將軍)” training camp for improving the competency of regional managers

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Fostering the training and learning of all employees

China Tower held the “Set-Sail Program” training camp for new boarding employees, focusing on corporate cultural identity, vocational competency shaping and role cognitive transformation of new employees. Moreover, the Company regularly held the “Tower Academy Open Courses” to continuously improve the comprehensive quality of the staff. The Company offered special training online through “Tower e-Learning” to constantly enrich training resources and broaden employees’ horizons.



Conducted the orientation training of new employees to start the career development in China Tower

In 2023, the Company held a total of nine sessions of “Set-Sail Program” training camp for new boarding employees to train a total of 1,041 new employees by multiple teaching methods such as course teaching, filed practice, action learning and outdoor training and improve the sense of identity and belonging of new employees on the Company.



● The “Set-Sail Program” orientation training camp for new employees



Built digital learning platform to collect high-quality learning resources

To adapt to the trend of the times of digital transformation and lifelong learning, China Tower launched the “Tower e-Learning” online learning platform to collect high-quality learning resources, cultivate the habits of persevering in studying and lifelong learning of the employees, so as to empower talent training and high-quality development of the Company.

In 2023, leveraging on the “Tower e-Learning” platform, the Company conducted:

- 804 online courses, covering 2.241 million people
- 78 special trainings, covering 1.035 million people
- 114 livestreams, covering 87 thousand people
- 5,142 online training courses, covering 196 thousand participants

The total learning time on the platform amounted to 1.649 million hours, and the per capita online training time was 75 hours.

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Facilitating the Improvement of Public Well-being

China Tower fully capitalized on the advantage of business, technology and resource, built a solid emergency defense line for telecommunication and power assurance, actively fulfilled its responsibility of providing inclusive telecommunication, helped to eliminate the digital divide in remote areas, cultivated community volunteer service forces, integrated into the development layout of the assisted areas, fulfilled the mission of state-owned enterprise, contributed strength of state-owned enterprise, and demonstrated responsibility of state-owned enterprise to build a community with a shared future for humans.

Supporting Fully Emergency Communication

China Tower took initiative to fulfill the important responsibilities of emergency telecommunication assurance, strengthened the construction of emergency telecommunication assurance forces, made full use of all kinds of emergency telecommunication assurance resources, did a good job in planning, materials and personnel reserves, ensured the steady and smooth lifelines, support lines and command lines, charged on the front line, and supported on the front line, improved the telecommunication assurance capability at the rescue site of major disasters and accidents, provided solid telecommunication assurance for rescue work, and built a solid line of defense for the safety of people's lives.



Carrying out flood control and rescue for telecommunication security, and being the vanguard of fighting a flood to keep safe

In August 2023, affected by the Typhoon "Doksuri", Shulan City in Jilin Province experienced widespread heavy rainfall and severe flooding. The Company provided immediate assistance and carried out flood control and rescue for telecommunication security. A total of 125 support vehicles, 269 rescue personnel, 208 generators were invested, and 26 telecommunication security teams were set up to carry out emergency repair work in an orderly manner after the flood receded, to ensure the normal operation of infrastructure.



● Site of the emergency support for heavy rainfall and flood of Jilin Branch

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Strenuously carried out emergency support works to bring a myriad of families back to normal life

In December 2023, impacted by freezing rain, snowstorm and significant cooling, the entire county of Yuanqu County, Yuncheng, Shanxi Province suffered a power cut. The Company quickly launched the contingency plan, deployed emergency assurance forces in Yuncheng City's counties and surrounding cities and invested 3,660 rescue personnel, 2,688 support vehicles, 1,075 diesel engines, 1,800 power generators of base stations. The Company guaranteed stable telecommunications throughout the whole process at the county emergency command headquarters and other important places, largely repaired the entire county's telecommunications, and completed the emergency telecommunication security work for large-scale power cut, which was a demonstration of China Tower's commitment to its mission.



● The emergency assurance of Shanxi Branch



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Promoting Community Development Jointly in Unite Efforts

The Company actively responded to the requirements of local communities and took its own resource advantages to carry out various activities to give back to communities. It also paid attention to the social groups for their special hardship, which contributed a solid force for the improvement of public well-being.



Supporting new forms of employment and working together to build a workers' harbor

The Company actively cooperated with local trade unions to build a trustworthy "workers' harbor". In 2023, All-China Federation of Trade Unions published the list of the "Most Beautiful Trade Unions Outdoor Worker Service Station" and ten "The Riders' Home" jointly built by China Tower and local trade unions were awarded the most beautiful All-China Federation of Trade Unions stations.

In Zhejiang Province, the Company cooperated with provincial organization department and the Trade Unions to build 156 "Urban Post" and "The Riders' Home" to provide one-stop services for riders, including recreation, haircut, legal literacy training and preferential grants. In Jiangxi Province, the Company and the provincial Federation of Trade Unions jointly built 12 "The Riders' Home" in the whole city. The Company actively carried out caring activities, organized activities such as riders' induction ceremony, caring for needy families, drugs distribution and the celebration of Riders' Day, and provided services to a total of 42 thousand riders. In Guangxi Zhuang Autonomous Region, the Company cooperated with the Federation of Trade Unions of Autonomous Region to build seven "Trade Unions Love Post of the Riders' Home". The Company provided over 300 outdoor workers with convenient facilities such as air-conditioners, televisions and drinking fountains, and organized activities such as Send Warmth, Send Cool, Send Culture, so as to care for the workers employed in new forms in an all-round way.



Convenient facilities for riders provided by Guangxi branch



Health consultation for riders carried out by Shanghai branch at "The Riders' Home"

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Building emergency mobile charging cabins to safeguard community power supply



In August 2023, Zhuozhou, Hebei Province was hit by a devastating flood that left the local resident communities without power for several days. The Company quickly deployed emergency mobile power charging carts to the communities, quickly set up a mobile power charging service booth, providing power charging services for the disaster-stricken people in the community, helping community residents to re-connect with the outside world, and bringing "China Tower Hope" to the disaster-stricken people.

● Emergency power charging for flood-affected communities provided by Hebei branch



Emergency safeguarding power when typhoon comes and support people's livelihoods

Facing with natural disasters, the Company rapidly launched emergency plans with deployment in advance and high attention to help that the industry of people's livelihoods will be safe and stable. Before typhoon ("Sula") in Huizhou, Guangdong Province comes, the Company rapidly conducted emergency reconstruction of power supply equipment and grid lines, concurrently carried out rehearsal of power interruption, so as to provide reliable guarantee of emergency power assurance for local bank network server rooms and make contribution to stable development of industry of people's livelihoods. During typhoon, the Company provided six emergency diesel engines to guarantee equipment for telecommunication maintenance units and six diesel engine generators for the maintenance units of TSPs to guarantee local smooth telecommunication.



● Guangdong Branch provided guarantee service of emergency power generation for server room of banking outlets



● Provided guarantee of emergency oil engine equipment for TSPs

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Assisting to Implement Rural Revitalization

China Tower supported consolidation and development of the result of battle against poverty, deepened assistance work and helped prosper villages. In 2023, the Company comprehensively finished task objectives of annual designated assistance and was well appraised by the three designated assistance counties (Xuan'en County in Hubei Province, Hefeng County in Hubei Province and Baojing County in Hunan Province). Furthermore, the Company carried out assistance work in 21 provinces (municipalities and autonomous regions) and 97 counties (villages), invested alleviation funds of RMB75,580,000 and brought funds of RMB8,020,000 in the whole year.

Industry prosperity

China Tower optimized forms of industry assistance, developed new rural industries and businesses, deepened models of "Plants + Workshops + Farmers", "Workshops + Talents + Farmers", "Companies + Cooperatives + Farmers" in three designated assistance counties (Xuan'en County in Hubei Province, Hefeng County in Hubei Province and Baojing County in Hunan Province), invested construction of morchella breeding center, morchella as well as mushroom and vegetable greenhouses and workshops of bacon deep processing, introduced nearby farmers to work, established Supply and Marketing Cooperative, invested construction of tea garden of gold tea and helped flourish industries.



Tea helping upgrade industries and deepening assistance work for rural prosperity

In order to continue to promote the integrated development of rural industries, the Company invested in the construction of golden tea wisdom tea garden in Baojing County, Hunan Province, promoted the implementation of citrus product reform and the cultivation of "free-range running pheasant" and "Chinese bee", and helped the local economic development. In Hefeng County, Hubei Province, the Company strived to build the "Wuling First Wild Tea Valley", invested in the construction of wild tea comprehensive industrial buildings, expanded the scale of wild tea drying, increased annual tea production, and increased per capita income.



● Hunan Baojing Gold Tea Wisdom Tea Garden

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E-commerce platform promoting the consumption and supporting rural agriculture to increase the income

Focusing on the “Agriculture Development by Digital Economy and Electronic Commerce”, China Tower carried out the activity of “Everyone has a responsibility for rural revitalization and promote development through consumption assistance”, and guided its employees to strive to be practitioners of consumption assistance by means of the e-commerce platform of “Central Enterprise Consumption Assistance”. The Company actively organized the participation of targeted poverty-stricken areas in activities such as the “Week of Central Enterprise Support for Consumption-driven Initiative” and the “Action of Central Enterprise for Consumption Support Gathering”, and strengthened the publicity and promotion of targeted poverty-stricken products, with a total of nearly RMB30 million of special agricultural and sideline products purchased and sold by the Company in 2023.

Talent revitalization

In conjunction with the talent cultivation plan of the assistance areas, China Tower provided training to grass-roots cadres, rural revitalization leaders, professional and technical talents, agricultural practical technicians and laborers by thematic trainings, rural night schools, field exercises, etc. In 2023, a total of 3,435 rural grass-roots cadres, rural revitalization leaders, and technical talents were trained, providing solid talent support for the comprehensive rural revitalization.

Cultural revitalization

In response to the national rural construction action requirements, China Tower deeply explored the excellent traditional farming culture, strengthened the protection of cultural heritage in Mayangzhai Village (麻陽寨村) and other villages, promoted the supporting construction of Xilankapu (西蘭卡普) study base, focused on integrating rural folk customs, and organized mass cultural and sports activities to inject cultural vitality into the countryside.



Inheriting national cultural heritage to build rural cultural industry



Xilankapu appeared at the 10th China Charity Fair

The Company vigorously developed the national intangible cultural heritage “Xilankapu” in Xuan’en County, Hubei Province, invested in the construction of Xilankapu Study Center, invited Xilankapu intangible cultural inheritors to carry out study and practice activities, and mobilized the masses to actively build beautiful garden and cultural walls to create characteristic rural landscapes, boost rural tourism income, drive sales of Xilankapu peripheral products, and expand the cultural influence of Xilankapu.

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Creating a demonstration site of "rural style and civilization" to build a beautiful and civilized countryside

In 2023, the Company organized various cultural performances, commendation conferences and award ceremonies in Baojing County of Hunan province, Hefeng County of Hubei province, and Xuan'en County of Hubei province, to recognize the builders of beautiful villages, leaders who bring others out of poverty by developing industry and practitioners of filial piety and good deeds to commend and organize the selection of "Civilized Families" and "Beautiful Gardens" to promote civilized rural customs, good family traditions, and simple folk customs to take root in the countryside.



● Rural art performance in Mawang Village (麻旺村), Hubei

Ecological revitalization

China Tower actively assists in the digital transformation of social governance in designated assistance areas, vigorously promoting the construction of the Comprehensive Monitoring Project in Xuan'en County and Hefeng County, Hubei Province. This includes establishing a comprehensive land monitoring and control system and a forest fire prevention and control system. In Baojing County, Hunan Province, assistance is provided for the implementation of the "Smart Water Conservancy" project and the "Land and Resources Protection" project. Utilizing a big data integration platform, comprehensive efforts are made to enhance the prevention and control of river and reservoir water pollution and monitor the county's land and resources, thereby contributing to the improvement of rural digital governance capabilities.



Focusing on rural environmental governance, enhancing digital management capabilities

In order to strengthen rural resource and environmental protection, effectively improve rural living environments, and promote green development in rural areas, China Tower has tailored a "Hefeng Model" solution for Hefeng County in Hubei Province. This involves establishing the Hefeng "Smart City Management" intelligent management information platform, constructing 11 video surveillance cameras for illegal construction at high altitude, 91 intelligent video surveillance cameras for urban appearance and sanitation, 46 outdoor networked sound columns, and other equipment. These measures effectively address persistent management issues such as unauthorized occupation of roads and disorderly parking, enabling comprehensive perception, intelligent warning, and smart decision-making in rural operational management services.

Sharing Empowering Innovation and Grasping the Pulse of the Times

Engaging in Volunteer Services

China Tower vigorously promotes the spirit of volunteerism and mobilizes employees to participate extensively in various volunteer activities. In 2023, the Company established 338 youth volunteer organizations and conducted a total of 1,127 youth volunteer activities.



“Learn from Lei Feng, Welcome the Universiade” volunteer service, contributing the youth power of China Tower

On the occasion of the 31st Summer Universiade, the Company organized the “Learn from Lei Feng, Welcome the Universiade” volunteer activity in Sichuan. Volunteers joined the emergency reserve support team of the Universiade, jointly carried out hazard rectification, stationed support, venue coordination, publicity guidance, and other work, to ensure the safe and stable operation of the telecommunication infrastructure and power assurance system of the Universiade.



Civilized city volunteer service: creating a beautiful city

In response to the national call for building civilized cities and strengthening community governance, the Company regularly conducts civilized city volunteer activities in Wuzhong, Ningxia. The Company’s youth volunteer service team is responsible for traffic guidance, parking of electric vehicles, contacting vehicle relocation, garbage cleaning, and other tasks. They also conduct public welfare campaigns such as base station radiation prevention, guiding the public to have a correct understanding of electromagnetic radiation.



● Civilized city volunteer service of Ningxia Branch



Coastal beach cleanup: supporting marine ecological conservation



● Coastal beach cleanup volunteer service of Liaoning Branch

To fulfill the requirements of national ecological civilization construction and protect the marine environment, China Tower actively organizes youth volunteer service teams in Dalian, Liaoning Province, to regularly conduct volunteer activities for cleaning up garbage on coastal beaches. Volunteers actively promote the Marine Environmental Protection Law and knowledge of marine environmental protection, pick up household waste on the beaches and reefs, advocate for civilized tourism, and enhance public awareness of environmental protection to care for beaches and protect the ocean.





Governance

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Sharing Assisting Management and Consolidating the Development Foundation

Data Presentation of China Tower

- Number of signatories to the Compliance Commitment Letter: **22,005** people, signing rate: **95.70%**
- Total number of integrity warning education sessions conducted throughout the year: **3,340** sessions, covering employees: **106,675** person-times
- Number of new authorized national invention patents obtained during the year: **84**, software copyright registrations: **49**, total number of authorized national invention patents: **145**, software copyright registrations: **172**
- Number of customers participating in satisfaction surveys: **529,174**, customer satisfaction rate: **98.90%**



Sharing Assisting Management and Consolidating the Development Foundation



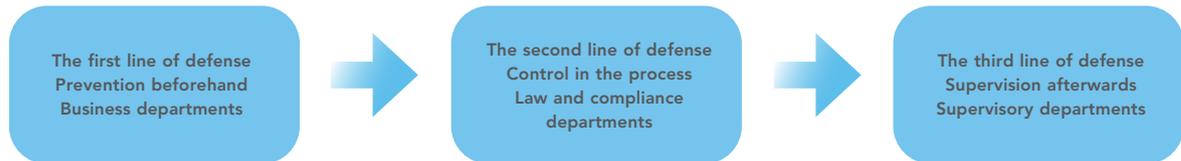
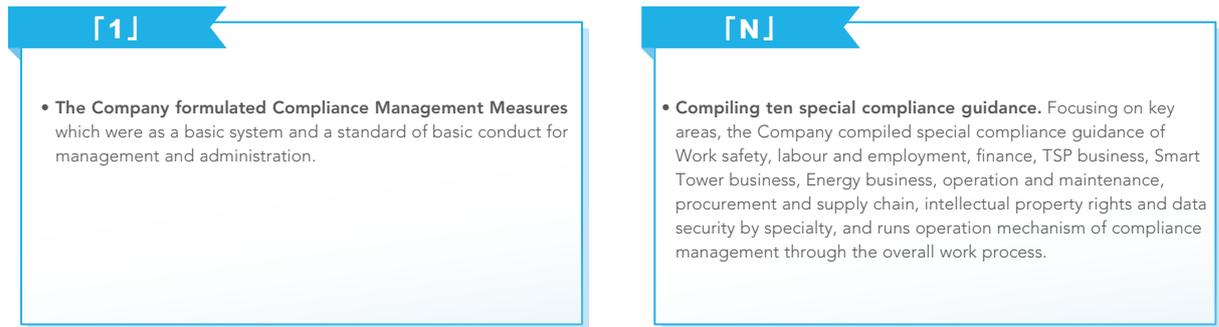
Insisting on Compliance Operation

Risk Management and Internal Control Compliance

China Tower continuously enhanced risk management, improved risk and internal control system, intensified the efforts to establish a standardized risk prevention and control system, gave full play to the role of major risk evaluation, monitoring and forewarning and stepped up the supervision and evaluation efforts to effectively improve the Company's capabilities to operate in accordance with laws and regulations and resist risks.

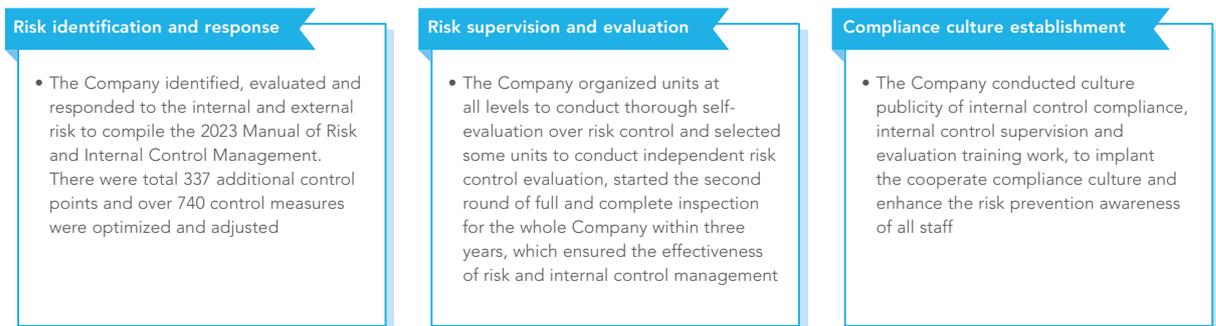
The Company placed emphasis on top-level design, and formed "1+N" compliance management system. With major responsibilities of "Business must come compliance" from business departments were specified, the Company set up "Three lines of defense" of business departments' prevention beforehand, law and compliance departments' control in the process and supervisory departments' supervision afterwards.

"1+N" compliance management system



Three lines of defense on risk management

The Company implemented specific work on risk management and internal control compliance in 2023:



Sharing Assisting Management and Consolidating the Development Foundation



All Staff complying law and regulation and implanting the root of compliance

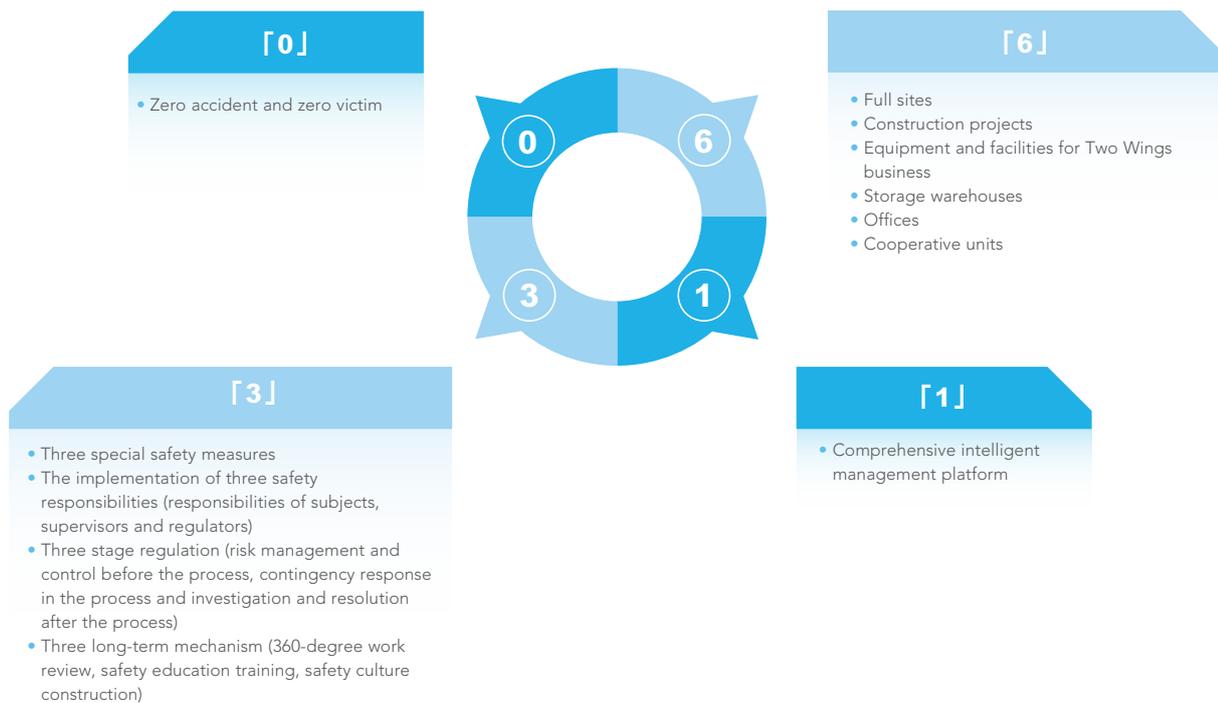
In June 2023, the senior management of the Company signed and issued the Compliance Proposal Letter 《合規倡議書》. A total of 22,005 cadres and employees signed Compliance Commitment Letter 《合規承諾書》, with a signing rate of 95.70%. The Company solidly established compliance awareness, comprehensively performed compliance obligation, firmly boycotted conduct violating the provision and together created law and compliance atmosphere of "Everyone, every matter and every time with compliance."

Safe Production and Responsibility Implementation

China Tower insisted on coordinating development and safety, firmly established the concept of safety development, strictly enforced responsibilities of work safety, focusing on basic management, strengthening publicity education, screening and rectification of hidden dangers, deepening management of cooperative units, so as to firmly prevent and solve safety risks, resolutely keep the bottom line of safety development, comprehensively improve safety level of the Company and facilitate its high-quality and sustainable development.

Laying a foundation for management of work safety

In 2023, the Company formulated 360-degree review stimulus, implementation details of work safety management and other 33 internal work safety rules, so as to strengthen implementation of system, strictly implement review of reward and penalty, constantly promote "0361" safety management system for tower captain system and deepen construction of corporate safety system.



Sharing Assisting Management and Consolidating the Development Foundation

Enhancing safety production propaganda and education

In 2023, China Tower strengthened its safety production through regularly convening safety production meetings, innovative safety propaganda, and graded classification of safety production training for all employees. This ensured the effective implementation of safety production work deployments, comprehensively fulfilled the main responsibility of enterprise safety production, fostered a good atmosphere of safety awareness among all staff, effectively prevented safety accidents caused by human factors, and built a solid safety defense line.

In 2023, the Company organized and conducted:

- 599 sessions of Safety Production Lecture Halls, covering 25,661 participants;
- 710 sessions of specialized training on safety knowledge and skills, covering 26,944 participants;
- 4,243 sessions of safety production activities such as "Let's Talk Safety", "Pre-shift Meetings" and "Case Studies", covering 40,392 participants.

Advancing the investigation and rectification of safety hazards

In 2023, the Company issued the Overall Plan for the Special Investigation and Rectification of Major Accident Hazards in 2023, identifying and rectifying 631 major accident hazards. The Company normalized and institutionalized various hazard investigation and rectification efforts, uncovering a total of 322,000 hazards, of which 321,000 have been rectified, achieving a rectification completion rate of 99.8%. Focusing on four key areas including external market bare conductors, secondary pouring of tower bases, echelon battery in important scenarios, and energy equipment and facilities, the Company conducted four special hazard rectification actions with good results, striving to address risk hazards at their early stages.

Ensuring the safety of partners

The Company has signed Safety Production Management Agreements with various partners, requiring them to enhance their safety production management levels and effectively conduct self-inspection and self-correction, promptly rectifying any safety production issues identified. Commissioned maintenance entities are required to sign labor contracts and safety production agreements with their employees annually, and to lawfully contribute to social insurance for their employees in accordance with the Labor Law of the People's Republic of China. A "double check-in" platform has been established for maintenance operations to strengthen operational norms for safety production, effectively curbing unauthorized operations and safeguarding the personal safety of operational personnel.

Business Ethics and Anti-corruption

The Company strictly adheres to and implements laws and regulations such as the Anti-Money Laundering Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China, and the Clean Practice of State-owned Enterprise Leaders, upholding the bottom line of business ethics and compliance operations.

Enhancing supervisory mechanisms

The Company leverages the supervision committee's role of "supervision over supervision" to coordinate the promotion of supervisory work, and drive business departments to develop and implement specialized supervision plans. It conducts follow-up assessments of issues, conducts in-depth analysis of causes, and strengthens targeted rectification efforts, overseeing the improvement of 16 institutional processes. It also encourages supervisory entities to continuously strengthen their sense of responsibility, enrich the means of supervision, enhance coordination among supervisory resources, and improve the quality and effectiveness of supervision.

Sharing Assisting Management and Consolidating the Development Foundation

Strengthening integrity defense lines

The Company continues to improve the mechanism for handling petitions and reports, promptly addressing various types of reported incidents based on the principles of "division of responsibilities by level, and centralized management". It strictly protects the privacy information of whistleblowers and safeguards the supervisory rights and legitimate interests of the staff.

In 2023, the Company initiated a special inspection called the "look-back" campaign targeting employees running a business or operating an enterprise, conducting random checks on a total of 11,232 individuals. This further clarified the behavioral standards for employees running a business or operating an enterprise, promoting the Company's integrity and healthy development.

Ensuring fair cooperation

During the procurement process, the Company signs Integrity Assurance Contracts with suppliers, with disciplinary inspectors acting as supervisory witnesses to verify and confirm the contract signing process. This ensures transparency and fairness in procurement and external cooperation. In 2023, the Company took disciplinary actions against 358 suppliers who violated the provisions of the Integrity Assurance Contracts, engaging in irregular, disciplinary, or even illegal activities. These actions included public criticism, reduction of business shares, and inclusion in a "black list".

Strengthening warning education

The Company continuously enhances integrity warning education and promotes the development of a culture of integrity. In 2023, the Company conducted warning education 3,340 times, covering 106,675 employees. Through regularly updating the dynamics of integrity construction, issuing reminders on integrity during holidays, organizing case analysis meetings, and conducting integrity training, the Company continuously nurtures and reinforces employees' integrity awareness. In December of the current year, the Company conducted annual director training in writing, covering various aspects including compliance with listing regulations, anti-corruption, and risk management. Directors and management personnel of the Company attended this training.

In 2023, the Company had one finalized corruption litigation case, and the individuals involved have been referred to the public security authorities for handling in accordance with national laws and regulations.

Patent and Brand Protection

The Company strictly adheres to the Advertising Law of the People's Republic of China, the Trademark Law of the People's Republic of China, and the regulations of relevant regulatory authorities, and formulates regulations such as the Identification System Manual to regulate the use of trademarks and brand images, establishing a normalized prevention and control mechanism.

The Company fully implements the Patent Law of the People's Republic of China, the Copyright Law of the People's Republic of China, and other relevant laws and regulations, as well as internal regulations such as the Notice on the Lawful and Compliance Use of Others' Copyright Works, Measures for Implementation of Patent Management, and Intellectual Property Compliance Guidelines. It actively engages in patent application and maintenance work, protects proprietary technological innovation achievements, promotes the compliance construction of the entire life cycle of intellectual property rights, and guards against the risk of intellectual property rights violations.

In 2023, the Company newly obtained 84 national invention patents and registered 37 software copyrights. As of the end of 2023, the Company obtained 145 national invention patents and registered 103 software copyrights on an accumulative basis.

Sharing Assisting Management and Consolidating the Development Foundation

Information Security and Privacy Protection

The Company implemented the requirements under the laws and regulations such as the Cybersecurity Law of the People's Republic of China, Data Security Law of the People's Republic of China and Personal Information Protection Law of the People's Republic of China, closely followed the Network and Information Security Construction Plan and continued to promote the systematized and standardized security management, all-for-one and self-operable security technology, standardized and regular security operation.

In terms of security management, with ISO 27001 information security management system certification as the starting point, we benchmarked ourselves against ISMS (information security management system) requirements, strengthened the top-level design of the network security system. We formulated rules and regulations for the network security operations, data security and compliance, and cloud resource management, and horizontally improved network, system, asset and personnel management systems to further enhance the system construction level.

In terms of security technology, we strengthened the capacity building of network security operation center (SOC), enhanced the capability of protection monitoring and blocking, built a large screen for command operations and security situation, constructed a combat range, completed the construction of zero trust security defense system, and improved the network monitoring capabilities for cloud-based application system and global security defense and protection capability. We continued to optimize the network architecture, formulate disaster recovery technology solutions for important systems, and consolidated the foundation for stable operation of the system throughout the period.

In terms of safe operation, we regulated the security audit and monitoring process, implemented the regular vulnerability scanning rectification mechanism, carried out network security on-site inspections and timely implementation of rectification, and comprehensively improved risk prevention capacity. We completed 18 actual attack and defense exercises, 67 full-process emergency drills, and 2 sand table attack and defense exercises. The cybersecurity work for major events such as the Chengdu Universiade, the Hangzhou Asian Games, the Belt and Road Forum for International Cooperation, and the Shanghai International Import Expo has been successfully completed.

During the year, there were no major network security incidents, information security or privacy leakage disputes.

Improving Quality Management

China Tower implemented the strategy of "great power of quality", fully promoted the project of "strong quality enterprise", focused on improving quality management level and customer service ability, took "100% customer satisfaction, 100% product quality qualified, 100% engineering quality up to standard" as the goal, promoted the integration of quality concepts into the Company's strategy and production and operation management, and provided quality support for the Company's high-quality development. In 2023, the Company set up the quality management and service supervision department, improved the quality management model, formed a new ability advantage with quality and service as the core, continued to improve the quality management level and quality competitiveness, and created a comprehensive quality management system of "product excellence, engineering quality, service leading".

Creating Excellent Products

Based on customer needs, the Company was committed to improving product quality, actively carried out product innovation and development and application promotion, upgraded the functions of products in the network, and provided users with more stable and efficient services. We continued to promote the development model, service mode and product solution innovation for DAS, tracked and studied the new direction of the development of TSP business, created a number of application products in Smart Tower industry, developed and applied battery exchange 4.0 series products, and continued to ensure product quality.

Sharing Assisting Management and Consolidating the Development Foundation

Creating High-quality Project

The Company adhered to promoting the engineering quality standardization management based on the quality, deeply implemented the quality improvement actions, created the high-quality projects, and supported the deployment of 5G infrastructure.

In 2023, the Company comprehensively sorted out the key links of engineering quality management, clarified the process control points and specific quality control measures, and implemented quality responsibilities at all levels to ensure the improvement of engineering quality. We continued to promote the standardization management of project quality, implemented the calibration mechanism of the first station, carried out supervision and inspection of standardized processes, fully implemented Internet inspection and on-site inspection, and made a good job of spot checks on hidden projects, personnel operation specifications and process quality to ensure that process standards are strictly implemented.



Pursuing high quality and carrying out consolidated supervision to assist in increasing product quality

In the implementation process of public network coverage project of Jiangmao section of Shenzhen-Maoming Railway in Guangdong Province, the Company conducted the standardization process supervision and review and did a good job in the management of project quality process focused on the requirements of customers, which further increased comprehensive achievement rate of quality management and control and achieved the first example that can cover seamlessly by fully enclosed sound barrier worldwide. The project was awarded the First-Class National Quality Works Projects Award of 2022-2023.



● National Quality Works Projects Award

Creating Leading Services

Based on the deployment of building "Service" enterprise, the Company unified planning to establish a customer-oriented service quality management system, optimized service standard and regulation of all businesses, strengthened the comprehensive management of customer's sound, deepened the closed loop of service process and built the measurable, implementable and appreciable metric system of service supervision assessment for customer, to assist in high-quality development of the Company.



Implementing service breakthrough and constantly increasing customer's satisfaction



● Operation and maintenance site of Tai'an Branch

By laying and establishing the operation and service philosophy of "quality, integrity and customer satisfaction", Tai'an Branch actively promoted construction of integrated network base station, successfully completed the goal of building 10,000 5G base stations in three years set by municipal government, implemented service breakthrough and served carefully and precisely, and continued to increase ability of network operation protection and customer service level, which obtained wide recognition and support from TSPs, governments at various levels and all sectors of society and was awarded as "Information and communication industry user satisfaction enterprise for 2023".

Sharing Assisting Management and Consolidating the Development Foundation

The Company formulated “customer-oriented” service systems in various business areas, established normalized work mechanisms such as monthly customer service report, customer service enhancement campaign and escort services for the whole process, set up online and offline complaint channels such as WeChat official account, product applications, 10096 hotline, service meetings, maintenance meetings, and customer managers’ daily reception, set out and optimized complaint updating process and clarified the classification, principle of management and the processing time requirement of complaint, to vigorously promote the adequate solution of every customer’s feedback.

In 2023, the Company’s “China Tower online service” WeChat official account received 1,328 complaints, and the percentage of work orders that received customers’ satisfaction was 98.90%; 10096 hotline received 2,578 complaints, and the response rate was 96.09%.

In 2023, the Company conducted a customer satisfaction survey by way of 10096 hotline, of which a total of 529,174 customers have participated, with customer satisfaction reaching 98.90%.

On the basis of effectively solving the problems of difficult site selection, high cost, difficult access to site and others for 5G construction, the Company has carried out special actions annually since 2020, namely “reduce 5G tower usage costs, save electricity costs, save site rental fees, improve service quality and save maintenance costs”, to effectively achieve cost reduction and efficiency improvement for the industry. By the end of 2023, the cumulative cost savings for three TSPs exceeded RMB6.6 billion. The effectiveness of special actions was well appraised by the three customers. In respect of satisfaction evaluation of 93 provincial TSPs across the country in 2023, on the whole, the rate for “very satisfied” reached 95.7%, of which the rate for “very satisfied” in terms of 5G was 98.9%, the rate for “very satisfied” in terms of site rental fees was 96.8%, the rate for “very satisfied” in terms of electricity costs was 94.6%, and the rate for “very satisfied” in terms of the quality of maintenance service was 92.5%.

The Company did not have any disputes over product safety and service this year.

Promoting Win-win Collaboration

The Company was dedicated to building up a supplier management system to ensure win-win collaboration and orderly competition, optimized the supplier admission scheme, implemented the post-assessment and withdrawal mechanism of suppliers, strengthened the management of environment and social risk for suppliers, and improved the digitalization level of the supply chain to jointly create a healthy and sustainable business development model.

Strengthening Responsibility Supply Chain

In strict compliance with the national laws and regulations and industry rules, the Company gives preference to suppliers with strong comprehensive strength, higher cost performance and lower performance risk and environmental and social risk by formulating supplier management measures and other systems, implementing admission management for suppliers based on procurement projects, reasonably setting qualifications and conditions of admission for potential suppliers, and formulating evolution methods oriented to the Company’s purchasing needs.

The Company set the unified models based on the categories of centralized procurement products and procurement projects, and implemented the post-assessment for suppliers’ performance from multi-dimensional aspects of safe production, product quality, after-sale service, on-time delivery, etc. The post-assessment results of suppliers were applied as the significant basis for selecting and rating suppliers during the subsequent procurement, in accordance with the principles of “granting rewards and imposing penalties”. In 2023, the Company conducted post-evaluation for important suppliers such as suppliers of centralized procurement projects and framework agreements, with 448 suppliers participating in the evaluation.

The Company established a Supplier Blacklist Management Mechanism, whereby suppliers engaged in serious violations of laws and regulations, safety production systems, contract agreements, or demonstrating significant integrity issues, were included in the national or provincial supplier blacklist in accordance with the Measures for Negative Behavior Management of Suppliers and relevant contract agreements. They were mandatorily excluded from specified regions and were prohibited from participating in procurement activities within the designated area for a specified period.

Sharing Assisting Management and Consolidating the Development Foundation

By supplier's place of registration	Number of suppliers in 2023
Mainland China	216,499
Hong Kong, Macau and Taiwan or overseas	39

Establishing Green Supply Chain

In order to enhance the awareness of environmental protection and energy conservation within the industrial chain, according to the procurement needs and the characteristics of procurement objective, the Company conducted careful assessments of suppliers' environmental management systems, and also reasonably examined suppliers' energy-saving product certifications to build a green supply capacity.

The Company incorporated environmentally friendly and energy-saving indicators of product technology into the evaluation consideration during the procurement process. For example, it prioritized the selection of air conditioning components that protected the ozone layer and had low pollution. The Company also chose products with environmental declarations, waste recycling instructions, and environmental usage period markings to enhance the procurement of green and environmentally friendly products. At the same time, the Company continuously optimized its procurement model using various approaches such as "interpolation" and "commitment system" to guide suppliers in reasonably improving key energy efficiency indicators of their products and contributed to the sustainable development of the entire industrial chain.

Constructing Efficient Supply Chain

China Tower pursued a transformation in corporate asset management and innovation in procurement management, established a comprehensive digital management and operational system for the entire lifecycle of assets under the "one-code-for-all service" initiative, constructed an integrated e-commerce procurement platform for general materials, to significantly enhance the efficiency of the Company's supply chain management.



"One-code-for-all service", supporting enterprises in establishing an efficient supply chain

To advance the comprehensive digitization of assets, the Company employed RFID tags and QR code technology, enabling end-to-end digital, lean, and efficient asset operations management through unique coding for each item, coding at the source, and scanning throughout the entire process. By the end of 2023, a total of 2.3 million items had been labeled nationwide. With the "one-code-for-all service" approach, the Company achieved a 66% reduction in material storage duration, a 61% reduction in installation time, a 67% reduction in the duration from project completion to internal inspection, and an 81% reduction in the duration from capitalization to closure, effectively enhancing supply chain management efficiency.



● "One-code-for-all service"

Prospects for Sustainable Development



As the journey ahead is vast and the challenges weigh heavily, we press onward with renewed determination. The year 2024 serves as a key year for the implementation of the “14th Five-Year Plan” and marks the tenth year of the Company’s determined and unwavering efforts. China Tower will continue to revolve around the main theme of high-quality development, steadily advance the “One Core and Two Wings” strategy, and contribute to the “Cyber Power”, “Digital China” and “Dual Carbon” strategies with more efficient services and more advanced technologies.

We will fully leverage our resource endowments while deepening joint construction and shared development. Focusing on information communication, the construction of digital infrastructure, digital governance, edge computing and new energy application services, we will continue to support digital economy, smart society and green development. We will fully back TSPs to consolidate 5G infrastructure to accelerate the construction of new digital infrastructure, supporting the high-quality development of “Dual Gigabit” network and laying digital base. Besides, we will continue to empower industries to transition to digital development and drive the transformation of “Telecommunication Tower” into “Digital Tower” and the turn of “Telecommunication Shelters” into “Digital Shelters” together with various industry players, to create digital-intelligence future jointly; seize development opportunities in the field of new energy, insist on seeking synergistic development based on our sharing philosophy and promote the application of green energy in the telecommunication industry and social people’s livelihood, to facilitate the green and low-carbon transformation.

We will continue to secure the emergency communication operations during significant public events and natural disasters to safeguard people’s life and property. Additionally, we will continue to increase investment in the construction of telecommunication infrastructure in remote areas to bridge digital divide. We will persistently consolidate and deepen the results of poverty alleviation, fueling the rural revitalization in areas such as industry, talent, culture and ecology to fulfill our social responsibility.

We will strengthen innovation-driven development through constant efforts in the R&D of key core technologies and the commercialization of research outcome. Meanwhile, we will build a new ecosystem with partners from industries, academia and research institutions to accelerate the formation of new quality productive forces for China’s modernization. Additionally, we will continue to reinforce the “Talents Make Business Strong” strategy by building a capable and effective talent team, caring for employees and improving our training system to provoke new drivers for the Company’s development.

Achievements are made along with continuous efforts. In 2024, we will stay true to our original aspiration and founding mission. By setting a clear focus on realizing our goal of becoming “a world-class integrated telecommunications infrastructure service provider and a highly competitive information and new energy applications provider”, the Company continuously strives to establish an operating system that is professional, intensive, delicate, efficient and digitalized, as well as to build an enterprise centered around sharing, service, innovation, technology and value creation. We will also adhere to the “customer-centered, employee-oriented and service-oriented” development philosophy, promote the high-quality development of the Company to make greater contribution for social development and civilization progress.





Demonstration of ESG Performance

Greenhouse Gas Emissions

Indicators	Unit	Data in 2023
Direct greenhouse gas emissions (Scope 1)	Tons	83,655.11
Gasoline	Tons	68,956.29
Diesel	Tons	4,915.90
Kerosene	Tons	14.84
Fuel oil	Tons	57.39
Coal	Tons	201.81
Coal gas	Tons	22.62
Natural gas	Tons	2,028.94
Liquefied petroleum gas	Tons	7,457.32
Indirect greenhouse gas emissions (Scope 2)	Tons	809,984.45
Externally sourced electricity	Tons	791,399.10
Externally sourced heat	Tons	18,585.35
Greenhouse gas emissions (Scope 1 & Scope 2)	Tons	893,639.56
Greenhouse gas emissions per unit of operating income	Tons/RMB million	9.51

Notes:

- As dictated by the types of businesses operated by the Company, greenhouse gas emissions are mainly from carbon dioxide generated by the use of externally sourced electricity and fuel.
- The statistical scope of greenhouse gas emission data includes the headquarters, provincial branches and municipal branches of China Tower Corporation Limited.
- Greenhouse gas emission data is presented by carbon dioxide equivalent, calculated based on the 2019 Refinement to the IPCC 2006 Guidelines for National Greenhouse Gas Inventory published by the Intergovernmental Panel on Climate Change (IPCC), China Energy Statistical Yearbook 2012 published by the National Bureau of Statistics, the 2005 Study on China's Greenhouse Gas Inventory and Provincial Greenhouse Gas Inventory Guidelines (Trial) published by the National Development and Reform Commission, the Letter on soliciting Opinions on the Guidelines for Compiling Carbon Peaking Action Plans for Central Enterprises (draft for comment) issued by SASAC and Guidelines for Accounting and Reporting of Greenhouse Gas Emissions (Trial) published by the Ministry of Ecology and Environment.
- Due to the further development of the Company's business during this year, total energy consumption and greenhouse gas emissions increased.

Demonstration of ESG Performance

Use of Energies and Resources

Indicators	Unit	Data in 2023
Direct energy consumption	MW•h	323,091.63
Gasoline	MW•h	260,738.57
Diesel	MW•h	17,807.13
Kerosene	MW•h	42.05
Fuel oil	MW•h	210.38
Coal	MW•h	538.99
Coal gas	MW•h	124.90
Natural gas	MW•h	9,096.99
Liquefied petroleum gas	MW•h	34,532.62
Indirect energy consumption	MW•h	1,409,065.41
Externally sourced electricity	MW•h	1,362,132.70
Externally sourced heat	MW•h	46,932.71
Total energy consumption	MW•h	1,732,157.04
Energy consumption per unit of operating income	MW•h/RMB million	18.43
Water consumption	Tons	956,060.52
Surface water	Tons	0
Underground water	Tons	0
Tap water	Tons	942,742.88
Other	Tons	13,317.64
Water consumption per unit of operating income	Tons/RMB million	10.17

Notes:

- The statistical caliber of energy consumption is the consumption in offices and for operational purposes in all operating units of the Company.
- The statistical scope of energy consumption data includes the Headquarters, provincial branches and municipal branches of China Tower Corporation Limited.
- The energy consumption data is based on the consumption of electricity and fuel and the relevant conversion coefficient provided by the General Principles on Calculation of Comprehensive Energy Consumption (GB/T 2589 – 2020) published by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China and the Standardization Administration of the People's Republic of China for calculation.
- Due to the rapid development of the Company's business, the water consumption per unit of operating income increased during the year.
- In 2023, the Company has no significant problems in obtaining suitable water sources.

Demonstration of ESG Performance

Waste Emissions

Indicators	Unit	Data in 2023
Total hazardous waste	Tons	2,056.27
Discarded nickel-cadmium batteries	Tons	0
Discarded mercury oxide batteries	Tons	0
Discarded lead (acid) batteries (packs)	Tons	2,056.27
Hazardous waste per unit of operating income	Tons/RMB million	0.02
Total non-hazardous waste	Tons	3,423.29
Discarded air conditioners from the server room	Tons	1,987.01
Waste switching power supply in the server room	Tons	729.08
Office paper	Tons	695.60
Discarded electronic products	Tons	4.44
Office supplies consumption	Tons	7.16
Non-hazardous waste per unit of operating income	Tons/RMB million	0.036

Notes:

- As dictated by the types of businesses operated by the Company, the main hazardous wastes are lead-acid batteries (packs) used in the server rooms at the station sites. The weight of the batteries is estimated based on the equipment model.
- Regarding disposal and use of discarded batteries, the Company strictly complies with the Environmental Protection Law of the People's Republic of China 《中華人民共和國環境保護法》, Law of the People's Republic of China on the Prevention and Containment of Solid Waste Pollution 《中華人民共和國固體廢物污染環境防治法》 and the Technical Specifications of Pollution Control for Treatment of Waste Lead-acid Battery (HJ 519-2020) 《廢鉛蓄電池處理污染控制技術規範(HJ 519-2020)》 and other laws and regulations, and disposes of batteries accordingly.
- The main non-hazardous waste includes office paper, office supplies, electronic products and discarded air conditioners and switching power supply from the server room.
- The statistical counts of discarded office paper and other office supplies include the data of purchase of paper, rollerball pens and paper clips by the Company's Headquarters, provincial branches and municipal branches, and the weight of such office supplies is estimated based on their models.
- Discarded electronic products include the scrapped desktops, laptops and printers from the Company's Headquarters, provincial branches and municipal branches and the weight of such supplies is estimated based on their models.
- As dictated by the types of businesses operated by the Company, it does not include use of packaging materials.

Demonstration of ESG Performance

Employee Hiring and Turnover

Indicators		Unit	Data in 2023
Total number of employees		person	22,994
Number of employees by nationality	Ethnic minorities	person	2,334
	Ethnic Han	person	20,660
Number of employees by gender	Male	person	16,600
	Female	person	6,394
Number of employees by category	Managers	person	4,226
	Non-managers	person	18,768
Number of employees by age	29 and below	person	5,182
	30-39	person	9,961
	40-49	person	6,197
	50 and above	person	1,654
Number of employees by region	East China	person	5,740
	Central China	person	2,676
	North China	person	3,678
	South China	person	2,375
	Northwest China	person	2,633
	Northeast China	person	1,944
	Southwest China	person	3,937
	Hong Kong, Macau and Taiwan	person	4
Overseas regions (except Hong Kong, Macau and Taiwan)	person	7	

Notes:

- The employee's statistic data for this year covers formal employees who entered into employment agreements with the Company.
- The employee turnover rates in each category = total number of employee turnover in the category/total number of employees in the category.

Demonstration of ESG Performance

Indicators		Unit	Data in 2023
Employee overall turnover rate		%	1.2
Employee turnover rate by gender	Male	%	1.1
	Female	%	1.5
Employee turnover rate by age	29 and below	%	3.7
	30-39	%	0.7
	40-49	%	0.2
	50 and above	%	0.1
Employee turnover rate by region	East China	%	1.3
	Central China	%	1.0
	North China	%	1.0
	South China	%	1.3
	Northwest China	%	1.4
	Northeast China	%	0.9
	Southwest China	%	0.9
	Hong Kong, Macau and Taiwan	%	0.0
	Overseas regions (except Hong Kong, Macau and Taiwan)	%	0.0

Demonstration of ESG Performance

Employee Training

Indicators		Unit	Data in 2023
The number and percentage of employees trained by gender	Number of male employees trained	person	16,419
	Number of female employees trained	person	6,322
	Percentage of male employees trained	%	98.9
	Percentage of female employees trained	%	98.9
The number and percentage of employees trained by employee category	Number of managers trained	person	4,206
	Number of non-managers trained	person	18,535
	Percentage of managers trained	%	99.5
	Percentage of non-managers trained	%	98.8
The average training hours by gender	Average training hours per male employee	hours/person	129.2
	Average training hours per female employee	hours/person	127.5
The average training hours by employee category	Average training hours of managers	hours/person	137.7
	Average training hours of non-managers	hours/person	126.7
The average training hours of all employees		hours/person	128.7

Employee Work Injury and Fatality

Indicators		Data
Number of work-related fatalities	Number of work-related fatalities in 2021	1
	Number of work-related fatalities in 2022	0
	Number of work-related fatalities in 2023	0
Rate of work-related fatalities	Rate of work-related fatalities in 2021	0.005%
	Rate of work-related fatalities in 2022	0%
	Rate of work-related fatalities in 2023	0%
Lost days due to work injury	Lost days due to work injury in 2023	1,223

Note:

- The employees' work-related fatality and injury data are subject to the official written documents such as the decision of the local social insurance administrative department on the acceptance of the application for work-related injury identification.



Appendix

United Nations Sustainable Development Goals Practices

SDGs	China Tower Action	Location in the report
 1 NO POVERTY	<ul style="list-style-type: none"> Serving the rural revitalization Strategy, and carrying out multi-faceted poverty alleviation Devoting to social welfare undertakings and promoting the philosophy of sustainable development Focusing on social emergencies and actively providing love and assistance 	<ul style="list-style-type: none"> Promoting community development jointly in united efforts Assisting to implement rural revitalization Engaging in volunteer services
 2 ZERO HUNGER		
 3 GOOD HEALTH AND WELL-BEING	<ul style="list-style-type: none"> Strengthening the safety production management level of the Company and its partners to ensure the safety of life and health Providing comprehensive medical insurance system for employees 	<ul style="list-style-type: none"> Safe production and responsibility implementation Protecting the rights and interests of employees
 4 QUALITY EDUCATION	<ul style="list-style-type: none"> Strengthening the construction and training of talents, and helping staff career development Carrying out the revitalization of rural talents 	<ul style="list-style-type: none"> Supporting the development of employees Assisting to implement rural revitalization
 5 GENDER EQUALITY	<ul style="list-style-type: none"> Ensuring gender equality in employee recruitment, promotion, salary, training and other aspects 	<ul style="list-style-type: none"> Protecting the rights and interests of employees
 6 CLEAN WATER AND SANITATION	<ul style="list-style-type: none"> Intelligent video monitoring of water conservancy to ensure flood control, water supply and ecological safety 	<ul style="list-style-type: none"> Serving by digitalization and intelligence empowers good and intelligent social governance
 7 AFFORDABLE AND CLEAN ENERGY	<ul style="list-style-type: none"> Improving the green energy consumption level of base stations and creating an ecological network of green and smart energy 	<ul style="list-style-type: none"> Building energy network and promoting green energy dissipation
 8 DECENT WORK AND ECONOMIC GROWTH	<ul style="list-style-type: none"> Improving the compensation and benefits and performance management system 	<ul style="list-style-type: none"> Protecting the rights and interests of employees
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	<ul style="list-style-type: none"> Fully supporting the development of 5G construction to help China build the world's largest mobile broadband network with the best quality 	<ul style="list-style-type: none"> Laying base of digital infrastructure Internet access assists to go through information artery
 10 REDUCED INEQUALITIES	<ul style="list-style-type: none"> Continuously improving the construction of communication infrastructure in remote areas and poor villages and towns 	<ul style="list-style-type: none"> Setting up bridge of communication in remote areas Internet access assists to go through information artery Assisting to implement rural revitalization

Appendix

SDGs	China Tower Action	Location in the report
	<ul style="list-style-type: none"> Actively deploying the field of new energy travel, and deploying charging outlets nationwide Utilizing video monitoring and monitoring at medium and high-altitude points to serve the governance of the ecological environment 	<ul style="list-style-type: none"> Building energy network and promoting green energy dissipation Serving by digitalization and intelligence empowers good and intelligent social governance
	<ul style="list-style-type: none"> Promoting the standardized management of project quality Establish a customer-centric service quality management system 	<ul style="list-style-type: none"> Creating high-quality project Creating leading services
	<ul style="list-style-type: none"> Paying attention to climate change risks, assess the possible impact of climate change risks and opportunities on the Company's business development and formulate targeted countermeasures and objectives Deepening sharing to achieve carbon reduction at source Innovating technology to improve the energy efficiency of base stations Digital infrastructure empowers green governance Application of new energy to promote the use of green energy 	<ul style="list-style-type: none"> Firmly practicing green and low-carbon philosophy Vigorously promoting environmental protection and energy conservation Sharing site resources and jointly constructing green industry Strengthening technology innovation and fulfilling green production Serving by digitalization and intelligence multi-dimensionally and enhancing green empowerment Building energy network and promoting green energy dissipation
	<ul style="list-style-type: none"> Deploying video monitoring and radar surveillance points in ocean, river and other waters to protect aquatic organisms 	<ul style="list-style-type: none"> Jointly constructing a green and beautiful ecology Serving by digitalization and intelligence empowers good and intelligent social governance
	<ul style="list-style-type: none"> Relying on the Internet of Vision platform of Tower and the wildlife monitoring equipment to support the protection of biological habitat 	<ul style="list-style-type: none"> Jointly constructing a green and beautiful ecology
	<ul style="list-style-type: none"> Improving internal supervisory and disciplinary inspection-related petitions and reporting mechanism Improving the transparency and fairness of procurement and external collaboration Strengthening the educational activities on business integrity 	<ul style="list-style-type: none"> Risk management and internal control compliance Business ethics and anti-corruption Strengthening responsible supply chain
	<ul style="list-style-type: none"> Building a supplier management system to ensure win-win collaboration and orderly competition and jointly creating a healthy and sustainable business development model 	<ul style="list-style-type: none"> Business ethics and anti-corruption Strengthening responsibility supply chain Establishing green supply chain Constructing efficient supply chain



Appendix

Index of the Hong Kong Stock Exchange's ESG Reporting Guide

Mandatory disclosure		Chapter disclosure
Governance Structure	A statement from the board containing the following elements: (i) a disclosure of the board's oversight of ESG issues; (ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.	Sustainable development management Statement of the board
Reporting Principles	A description of, or an explanation on, the application of the Reporting Principles in the preparation of the ESG report (Materiality, Quantitative and Consistency).	About the report
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	About the report

"Comply or explain"		
Aspect	KPIs	Chapter disclosure
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.	Implementing low-carbon concepts, empowering green development Firmly practicing green and low-carbon philosophy Vigorously promoting environmental protection and energy conservation
	A1.1 The types of emissions and respective emissions data.	Demonstration of ESG performance
	A1.2 Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Demonstration of ESG performance
	A1.3 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Demonstration of ESG performance
	A1.4 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Demonstration of ESG performance
	A1.5 Description of emissions target(s) set and steps taken to achieve them.	Firmly practicing green and low-carbon philosophy
	A1.6 Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Vigorously promoting environmental protection and energy conservation

Appendix

"Comply or explain"		
Aspect	KPIs	Chapter disclosure
A2 Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials.	Implementing low-carbon concepts, empowering green development Firmly practicing green and low-carbon philosophy Vigorously promoting environmental protection and energy conservation
	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).	Demonstration of ESG performance
	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Demonstration of ESG performance
	A2.3 Description of energy use efficiency target(s) set and steps taken to achieve them.	Firmly practicing green and low-carbon philosophy
	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Vigorously promoting environmental protection and energy conservation
	A2.5 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	As dictated by the types of businesses operated by the Company, it does not include packaging materials.
A3 The Environment and Natural Resources	General Disclosure Policies on minimising the issuer's significant impacts on the environment and natural resources.	Implementing low-carbon concepts, empowering green development Jointly constructing a green and beautiful ecology
	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Implementing low-carbon concepts, empowering green development Jointly constructing a green and beautiful ecology
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.	Firmly practicing green and low-carbon philosophy
	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.	Firmly practicing green and low-carbon philosophy

Appendix 

"Comply or explain"		
Aspect	KPIs	Chapter disclosure
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.	Caring for employees to achieve development
	B1.1 Total workforce by gender, employment type (for example, full-or part-time), age group and geographical region.	Demonstration of ESG performance
	B1.2 Employee turnover rate by gender, age group and geographical region.	Demonstration of ESG performance
B2 Health and Safety	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 providing a safe working environment and protecting employees from occupational hazards.	Caring for employees to achieve development
	B2.1 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Demonstration of ESG performance
	B2.2 Lost days due to work injury.	Demonstration of ESG performance
	B2.3 Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Caring for employees to achieve development

Appendix

"Comply or explain"		
Aspect	KPIs	Chapter disclosure
B3 Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. <i>Note: Training refers to vocational training. It may include internal and external courses paid by the employer.</i>	Caring for employees to achieve development
	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Demonstration of ESG performance
	B3.2 The average training hours completed per employee by gender and employee category.	Demonstration of ESG performance
B4 Labour Standards	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 preventing child and forced labour.	Caring for employees to achieve development
	B4.1 Description of measures to review employment practices to avoid the child and forced labour.	Caring for employees to achieve development
	B4.2 Description of steps taken to eliminate such practices when discovered.	Caring for employees to achieve development
B5 Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain.	Promoting win-win collaboration
	B5.1 Number of suppliers by geographical region.	Promoting win-win collaboration
	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Promoting win-win collaboration
	B5.3 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Promoting win-win collaboration
	B5.4 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Promoting win-win collaboration

"Comply or explain"		
Aspect	KPIs	Chapter disclosure
B6 Product Responsibility	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 health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Insisting on compliance operation Improving quality management
	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Based on the nature of the Company's business, it does not involve recycling for safety and health reasons.
	B6.2 Number of products and service related complaints received and how they are dealt with.	Improving quality management
	B6.3 Description of practices relating to observing and protecting intellectual property rights.	Insisting on compliance operation
	B6.4 Description of quality assurance process and recall procedures.	Improving quality management
	B6.5 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Insisting on compliance operation
B7 Anti-corruption	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 bribery, extortion, fraud and money laundering.	Insisting on compliance operation
	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.	Insisting on compliance operation
	B7.2 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	Insisting on compliance operation
	B7.3 Description of anti-corruption training provided to directors and staff.	Insisting on compliance operation
B8 Community Investment	General Disclosure 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.	Facilitating the improvement of public well-being
	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Facilitating the improvement of public well-being
	B8.2 Resources contributed (e.g. money or time) to the focus area.	Facilitating the improvement of public well-being

Appendix

Content Index of Climate-related Financial Disclosures (TCFD)

Issue	Issue description	Corresponding report location
Governance	Description of the Board's oversight of climate-related risks and opportunities.	Firmly practicing green and low-carbon philosophy – Governance
	Description of the role of management in assessing and managing climate-related risks and opportunities.	
Strategy	Description of the climate-related risks and opportunities identified by the organization in the short, medium and long term.	Firmly practicing green and low-carbon philosophy – Strategy
	Description of the impact of climate-related risks and opportunities on the organization's operations, strategy and financial planning.	
	Description of the resilience of the organization's strategies considering different climate-related conditions, including scenarios with temperatures of 2°C or lower.	—
Risk Management	Description of the organization's process for identifying and assessing climate-related risks.	Firmly practicing green and low-carbon philosophy – Risk management
	Description of the organization's process for managing climate-related risks.	
	Description of how processes of identifying, assessing and managing climate-related risks are integrated into the overall risk management of the organization.	
Metrics and Targets	Disclose the indicators used by the organization to assess climate-related risks and opportunities according to its strategy and risk management process.	Firmly practicing green and low-carbon philosophy – Metrics and targets
	Disclose greenhouse gas (GHG) emissions and related risks of direct emissions (Scope 1), indirect emissions (Scope 2) and other indirect emissions (Scope 3), if required.	Demonstration of ESG performance
	Description of the objectives used by the organization to manage climate-related risks and opportunities, and performance against targets.	Firmly practicing green and low-carbon philosophy – Metrics and targets







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