

中国建筑 科技展

Witness · ESG

Environmental Social Governance

2024 | Sustainability Report
Stock Code: 601668.SH



中國建築
CHINA STATE CONSTRUCTION

Expanding a Happy Living Environment



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ESG

2024

Environmental, Social and Governance
and Sustainability Report



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About the Report

Objective of the Report:

This is the second Environmental, Social and Governance (ESG) report released by China State Construction Engineering Corporation Limited. It aims to disclose the strategy, management systems, management policies, actions, and key performance of the Company's ESG efforts and to respond to key ESG topics of concern to stakeholders.

Alignment:

This report is guided by the Central State-owned Enterprises (SOEs) on *Fulfilling Corporate Social Responsibilities with High Standards in the New Era*, the United Nations Sustainable Development Goals (UN SDGs), the *Global Reporting Initiative Standards (GRI Standards)* published by the Global Sustainability Standards Board (GSSB), *SSE Guidelines No. 14 for Self-Regulation of Listed Companies—Sustainability Report (Trial)* and *SSE Guidelines No. 4 for Self-Regulation of Listed Companies—Preparation of Sustainability Report*, as well as the disclosure principles of material, quantitative, balance, and consistency.

Boundaries:

The report focuses on China State Construction Engineering Corporation Limited and its branches and subsidiaries.

Reporting Period:

This is an annual report for the period from January 1, 2024 to December 31, 2024 (the "Reporting Period"). Some of the content looks backward or

forward to make the report more comparable and forward-looking.

Source of Data:

The information and data in the report are from the Company's official documents, statistical reports, publicly available information, and relevant internal data collection systems, and have been summarized and reviewed by the Company. The currencies and amounts in the report are denominated by Renminbi unless otherwise stated.

References:

For convenience of presentation and reading, China State Construction Engineering Corporation Limited will be referred to as "CSCEC," "the Company," or "we/us" in the report. Other commonly used references include: China State Construction Engineering Corporation (China State Construction/the Group), China Construction First Group Corporation Limited to China Construction Eighth Engineering Division Corp. Ltd. (China Construction First Group Corporation to Eighth Engineering Division), China Overseas Holdings Limited (COHL), China Overseas Land & Investment Ltd. (China Overseas Land & Investment), China State Construction International Holdings Limited (CSCI), and more.

Access:

This report is published in print and online and is available at CSCEC's website, www.cscec.com. The report is made in both Chinese and English. In the event of an inconsistency between the two language versions, the Chinese version shall prevail.

Point of Contact: Board Office

Address: 37/F, CSC Fortune International Center, Building 3, Courtyard 5, Anding Road, Chaoyang District, Beijing, China

Telephone: 86-10-86498888

E-mail: ir@cscec.com

Note: The forward-looking descriptions of future plans, development strategies, etc. mentioned in this report do not constitute substantial commitments of the Company to investors. Investors are advised to be aware of investment risks.

Statement of the Board of Directors

According to CSRC's *Code of Corporate Governance for Listed Companies and the Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial)*, the Company and the Board of Directors continue to enhance the ESG management framework. We have strengthened the Board's supervision and involvement in ESG matters for more effective ESG risk prevention and control.

The ESG Governance Role of the Board of Directors

The Board of Directors serves as the highest authority for ESG decision-making at CSCEC. The Board delegates ESG oversight to the Strategy and Investment Committee. Under a three-tiered ESG management structure (see "Strategic ESG Management—ESG Management System" for details), the Committee oversees ESG implementation, progress on metrics and targets, and performance management through the Branding Coordination Group and ESG Working Group.

ESG Governance Strategies and Policies

The Company regularly identifies ESG topics that may impact long-term sustainability through interviews, surveys, research and discussions, with these issues evaluated and prioritized. Then, the Board reviews assessment results, defines key ESG opportunities and risks, and provides suggestions on ESG topics of double materiality. The ESG Working Group involves departments and their heads in evaluating key ESG impacts, risks, opportunities, their likelihood of occurrence, and degree of impacts, and developing

corresponding response measures (see "Strategic ESG Management—Double Materiality Assessment" for details).

The Strategy and Investment Committee formulates the ESG strategy, makes decisions on major ESG matters, and regularly reports to the Board. It works to integrate ESG into corporate operations and management and enable the Board to manage ESG with greater independence, efficiency, and expertise, supporting the Company's long-term, high-quality development.

Metrics, Targets and Progress Review

The Company has set short-, mid-, and long-term ESG targets and embedded ESG-related metrics, such as environment, supply chain, and safety, into executive compensation evaluations. This approach incentivizes the management to fulfill their responsibilities and drives deeper integration of ESG into corporate management. The Board reviews and discusses target-setting and regularly evaluates progress. In 2024, ESG Working Group meetings were convened four times.

This report has been deliberated and approved at the 15th meeting of the fourth session of the Board of Directors. It is authentic, accurate, complete, and free from any false records, misleading statements, or material omissions. The Company has also engaged the China Quality Certification Center to conduct an external audit based on the AA1000 (AccountAbility 1000) verification standard. The independent audit statement is provided in the appendix.

About CSCEC

CSCEC is controlled by China State Construction, which was officially established in 1982 and is a key state-owned enterprise (SOE). CSCEC is the largest investment and development conglomerates worldwide. In 2009, China State Construction Engineering Corporation Limited (stock abbreviation: CSCEC; stock code: 601668.SH) was officially listed on the stock market, raising a total of RMB 50.16 billion. In 2024, CSCEC ranked 14th among Fortune Global 500 and 4th among Fortune China 500. CSCEC was included in the Fortune China ESG Impact List, continued to top Engineering News Record's (ENR) Top 250 Global Contractors list for the ninth year in a row, and received the highest credit rating in the global construction industry.

CSCEC has been doing business in all provinces, regions, and cities in China, more than 100 countries and regions around the world, covering housing, infrastructure, real estate, survey and design as well as new business (green and low-carbon, digital), forming a "five-in-one" development pattern of design, housing, infrastructure, real estate, and overseas.

CSCEC thoroughly implements the new development philosophy and adheres to the priority of high-quality development. Committed to the strategic goal of "one creation and five aspects of strength"⁰¹, it thoroughly implements the strategic path of "1+6+6"⁰² and sticks to the development path driven by innovation and featured by green, low carbon, and win-win collaboration. By enhancing development momentum conversion and accelerating business structure adjustment, it is striving to build a world-class enterprise.

01 "One creation and five aspects of strength" refer to "being driven by the creation of a globally competitive and world-class enterprise and committed to becoming a world-class enterprise group with strengths in value creation, innovation leadership, brand influence, international competitiveness, and cultural soft power."

02 "One elevation, six competitive advantages, and six commitments." "One elevation" refers to raising political stance. "Six competitive advantages" refer to advantages in housing construction as the primary business, infrastructure construction as a pillar business, real estate development, survey and design, foreign market development, and business integration. "Six commitments" refer to modern corporate governance, capital and asset operation, scientific and technological innovation, organizational structure reinforcement, talent support, low-carbon and digital transformation.

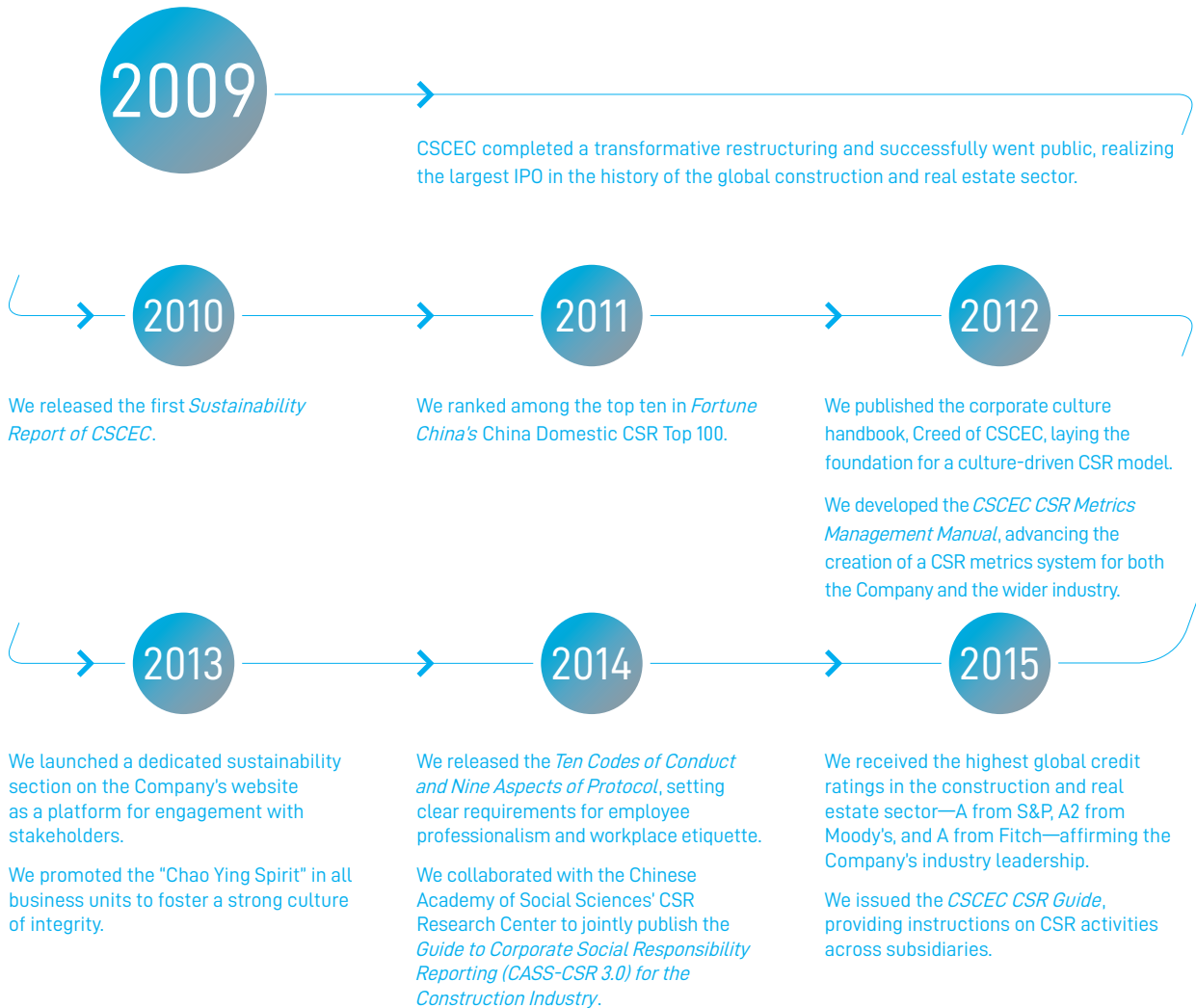
ESG Recognitions in 2024

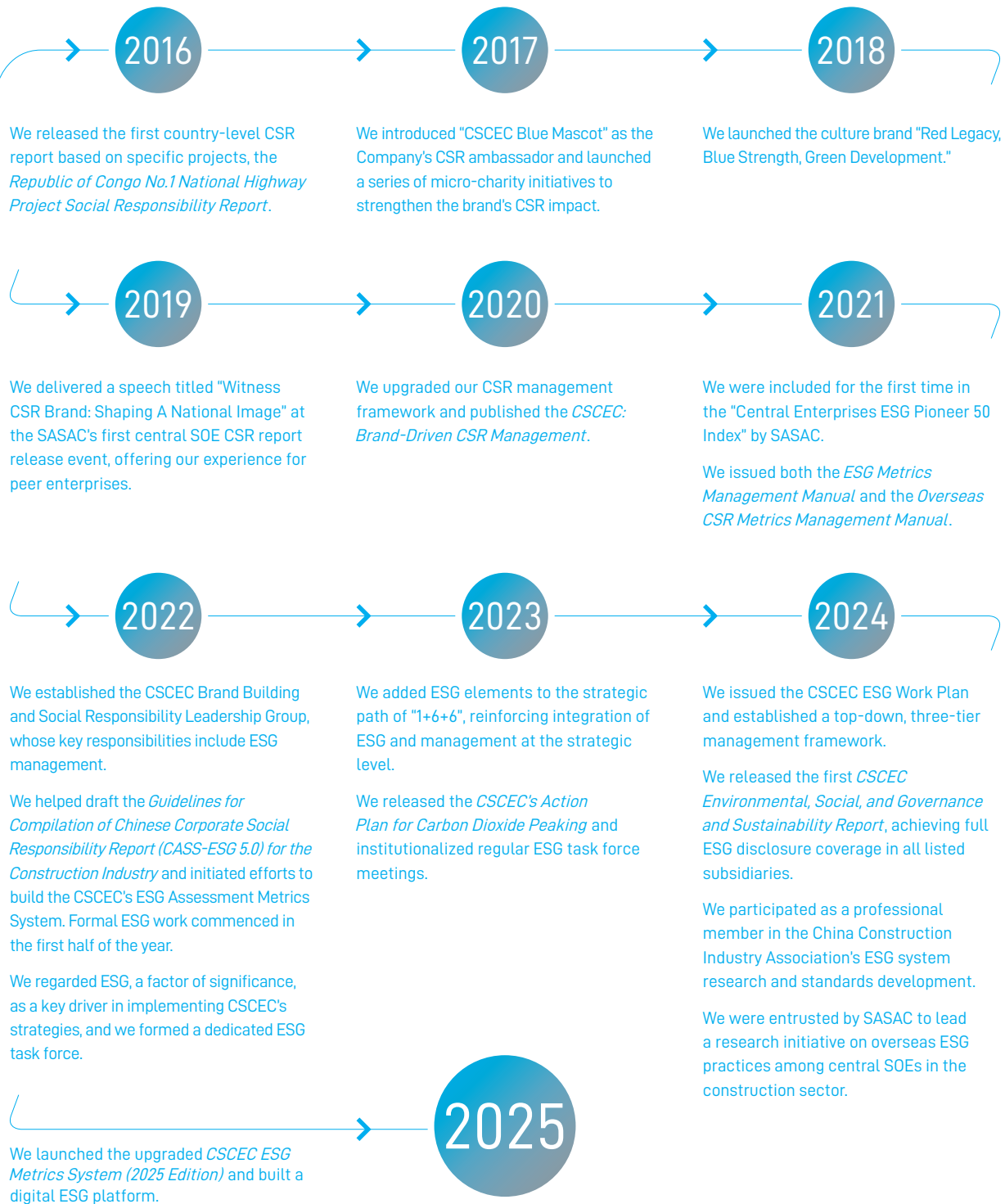
— Award —	— Granted by —
Grade A in the business performance evaluation for the 19th time and listed in the world-class enterprise category by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC)	State-owned Assets Supervision and Administration Commission of the State Council (SASAC)
CSCEC was listed as an outstanding "Group Brand" and China Overseas Property Holdings Limited as an outstanding "Service Brand" among the first exemplary achievements in the Central SOE Brand Leadership Campaign	SASAC
2024 ESG Excellence in Practice	China Media Group, China Enterprise Reform and Development Society
China's Top 100 ESG Pioneer Among Listed Companies	China Media Group
2024 Board Best Practice, Annual Performance Briefing Best Practice, and Investor Relations Management Best Practice	China Association for Public Companies (CAPCO)
2024 Best Sustainability Practice among Listed Companies	CAPCO
CSCEC was included in the China ESG Impact List	Fortune China magazine
CSCEC was ranked 13th in the "Brand Finance China 500 2023" (on the most valuable and strongest Chinese brands), maintaining the top spot in the industry	Brand Finance
National May 1st Labor Certificate	All-China Federation of Trade Unions
National May 1st Labor Medal	All-China Federation of Trade Unions
National Worker Pioneer	All-China Federation of Trade Unions
"Outstanding Bond Issuer (Corporate Bonds)" for 2024	Shanghai Stock Exchange
CSCEC Implements the New Development Philosophy and Practices ESG Management was selected as a 2024 ESG Case	People's Daily
CSCEC was recognized as a representative enterprise in the 2024 key industry social responsibility development index for the construction sector	Research team of the Blue Book of Corporate Social Responsibility (2024) by the Chinese Academy of Social Sciences

Witness ESG

The year 2024 marks the 20th anniversary of the United Nations Global Compact's introduction of the ESG concept and a pivotal year for ESG development in China, with a series of regulations, guidelines, manuals, and standards launched in succession.

Since our flotation in 2009, CSCEC has released sustainability reports for 16 consecutive years. This year's report, themed "Witness ESG," follows the Company's "witness" responsibility brand, underscoring our long-term ESG commitment. Guided by the *Creed of CSCEC* and the *Ten Codes of Conduct and Nine Aspects of Protocol*, the Company has built an ESG management system that embeds ESG principles into corporate strategy and daily operations. Our practices over the years have been reflected in a distinct path of "witness ESG."





Strategic ESG Management

CSCEC regards ESG, a factor of significance, as a key driver in implementing corporate strategies and aligning development principles and values across the Company. Guided by our strategic goal of “one creation and five aspects of strength” and the strategic path of “1+6+6”, we are devoted to strategic ESG management by setting

ESG targets and building a science-based and structured ESG management framework. Through a six-element ESG strategy framework⁰³ and 6+N ESG measures⁰⁴, we continue to sharpen our competitiveness in sustainable development and drive high-quality growth across our listed subsidiaries.

ESG Goals

CSCEC has set short-, medium-, and long-term ESG goals and progressively integrated ESG principles into corporate management to foster sustainable development.

Key ESG metrics have been incorporated into executive performance evaluations, incentivizing senior managers to create greater value for the industry and society.

CSCEC's ESG goals

	Time frame	Goal
Short-term goal	2023-2024	<ul style="list-style-type: none"> To establish an initial ESG management and control framework, complete a comprehensive assessment, publish the Company's first ESG status report, draft the first ESG report, and meet ESG disclosure objectives and tasks for listed subsidiaries under central SOEs.
Mid-term goal	2025-2027	<ul style="list-style-type: none"> To enhance the ESG management and control system, improve the ESG reporting mechanism, drive management improvements through ESG practices, and elevate CSCEC's ESG rating to an A-level (or equivalent) on major domestic and international rating platforms, and set a benchmark for the industry.
Long-term goal	2028-2032	<ul style="list-style-type: none"> To improve the ESG management and control framework for in-depth integration of ESG with the Company's development strategy, governance structure, and operations, promote the development of a sector-wide ESG ecosystem, contribute to the formation of global ESG standards, and support CSCEC's journey toward becoming a world-class enterprise.

⁰³ The six elements of the strategic system are the ESG concept, strategy, organization, system, action, and performance.

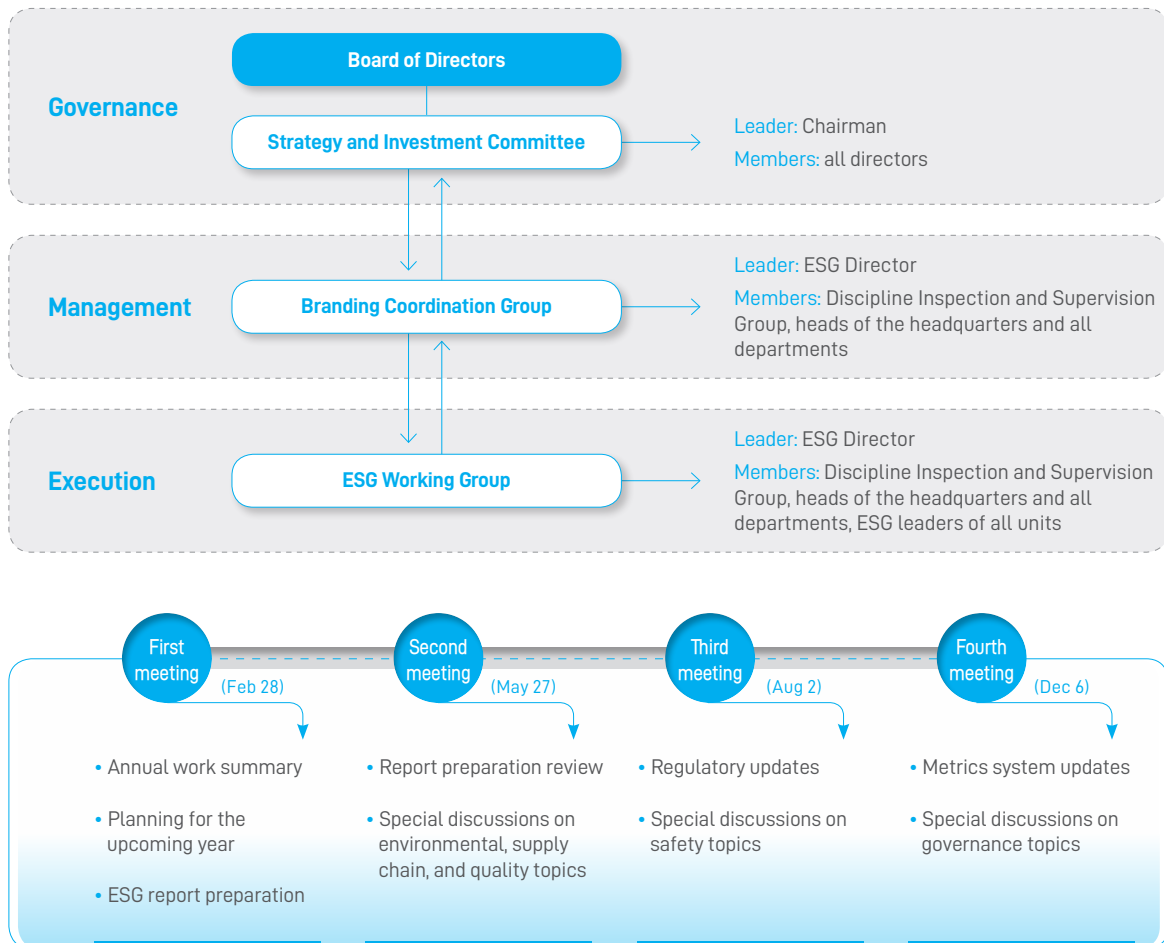
⁰⁴ The strategic measures 6+N are to promote ESG through management, specialization, disclosure, evaluation, training, data and other strategic measures.

ESG Governance System

CSCEC has established a three-tier ESG management structure composed of the Board’s Strategy and Investment Committee, the Branding Coordination Group, and the ESG Working Group. Each level has clearly defined responsibilities, with mechanisms in place for work meetings, collaboration, and execution oversight

to ensure that ESG tasks are implemented. In 2024, the ESG Working Group held four dedicated meetings, reviewed 11 ESG topics, addressed key challenges in ESG topics, and assigned various annual tasks. Relevant departments provided special reports to improve the management of key ESG topics.

↳ CSCEC’s ESG management structure



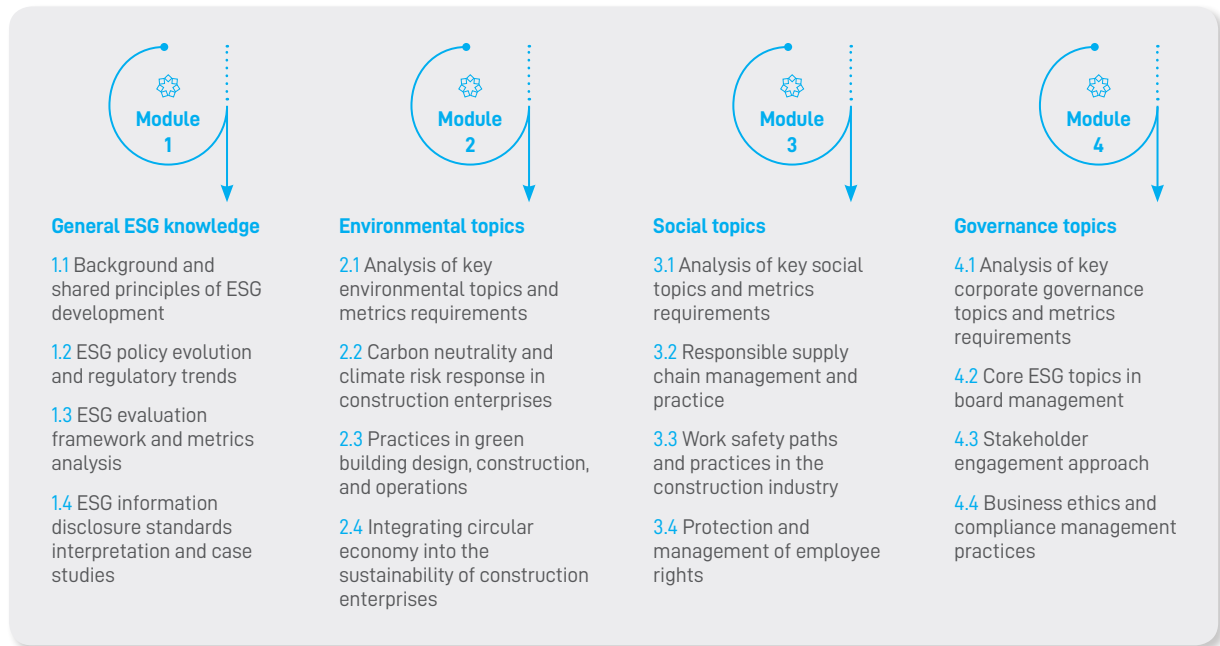
ESG Management Initiatives (Excerpts)

ESG training and talent development

CSCEC has developed 16 online ESG courses, which are launched on the CSCEC Online Academy. Designed for directors, ESG managers, and business staff, the courses cover general ESG knowledge and ESG topics. Delivered by internal and external experts, the courses aim to heighten the ESG awareness of all employees. Meanwhile, by requiring business

professionals to develop and teach ESG courses, we improve the management of ESG topics and cultivate a talent pipeline proficient in both business and ESG. Additionally, a specialized ESG management lecture titled “Strategic ESG Management of CSCEC” was delivered as part of the 71st Leadership Training Program at the CSCEC Management Institute in fall 2024, supporting the upskilling of mid-level managers.

↳ CSCEC's online ESG courses

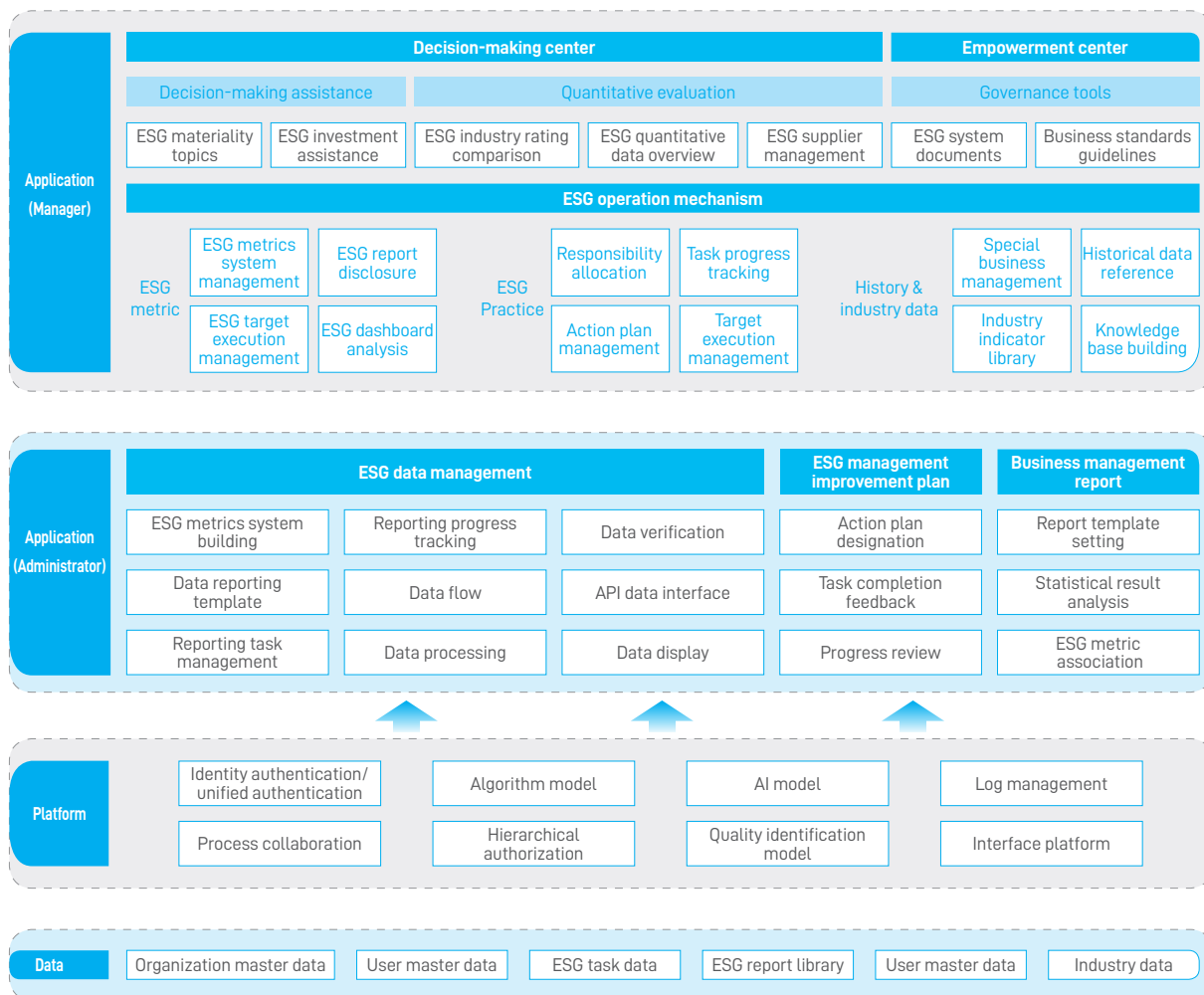


Digitalized ESG management

CSCEC leverages digital tools to strengthen ESG management. We have explored the building of an ESG digital platform, which is executed in near-, mid-, and long-term stages for a one-stop digital, automated, and intelligent platform. It integrates data and workflow management, simplifies information disclosure, and

supports analyses and decision-making, all aimed at boosting the efficiency of ESG lifecycle management. During the reporting period, the Company rolled out version 1.0 of the ESG digital management platform, featuring ESG information collection, automated task distribution, and data visualization, providing a robust data foundation for informed sustainability decisions.

↳ Blueprint for CSCEC's ESG digitalization framework



Stakeholder Management

CSCEC has built a sound stakeholder communication platform with a robust, open, and transparent communication mechanism to support regular dialogue

with stakeholders, which helps us understand and respond promptly to the expectations and concerns of stakeholders.

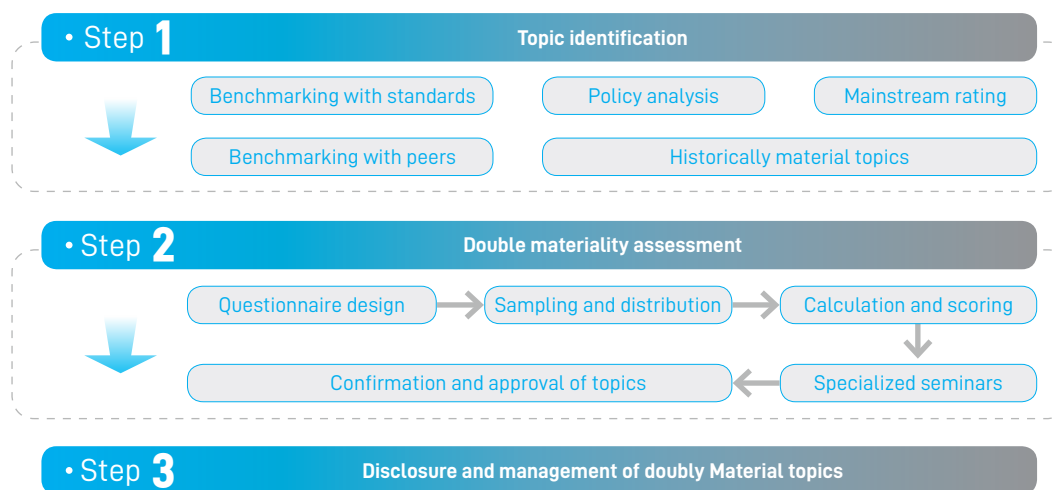
Stakeholders	Expectations for CSCEC	CSCEC's Communication and Response
—○ Shareholders /investors	<ul style="list-style-type: none"> • Robust operations • Superior financial and market performance • Dividend returns and growth • Sound disclosure 	<ul style="list-style-type: none"> • Enhancing corporate governance • Holding Shareholders' Meetings and earnings presentations • Periodic reports and corporate announcements • Investors' and analysts' meetings • Steady cash dividend returns
—○ Government /regulators	<ul style="list-style-type: none"> • Legal compliance • Responding to national policies • Driving economic growth • Contributing to local development 	<ul style="list-style-type: none"> • Operation in compliance with laws and regulations • Work reporting and business communication • Engagement in government-led engineering projects • Project site visits
—○ Employees	<ul style="list-style-type: none"> • Legitimate rights and interests of employees • Growth space and promotion opportunities • Compensation and benefits • Health and safety • Inclusive communication 	<ul style="list-style-type: none"> • Protecting the legitimate rights and interests of employees • Enhancing employee training • Maintaining unblocked career development channels • Competitive compensation system • Protecting employees' occupational health and safety • Improving the employee communication mechanism • Employee satisfaction surveys • Trade union events and employee symposiums
—○ Customers (owners)	<ul style="list-style-type: none"> • Ensuring product quality • Responding to customer needs • Customer relationship management services 	<ul style="list-style-type: none"> • Enhancing safety and quality inspections • Improving service quality • Customer satisfaction surveys • Customer visits and communication meetings • Bidding and business negotiations • Business correspondences • Contract performance
—○ Suppliers	<ul style="list-style-type: none"> • Fair and just procurement • Sustainable supply chain • Stable partnerships 	<ul style="list-style-type: none"> • Sunshine procurement (transparent procurement), green procurement • Enhancing qualification audit • Supplier behavior management • Bidding and business negotiations • Business correspondences • Contract performance and fulfilment as scheduled
—○ Contractors	<ul style="list-style-type: none"> • Protection of legitimate rights and interests • Health and safety • Stable partnerships 	<ul style="list-style-type: none"> • Protecting the legitimate rights and interests of Contractors' employees • Protecting the occupational health and safety of Contractors' employees • Behavior management • Bidding and business negotiations • Business correspondences • Contract performance
—○ Communities	<ul style="list-style-type: none"> • Concern for people's livelihood • Supporting public welfare • Collaborative programs 	<ul style="list-style-type: none"> • Regularly communicating with community representatives • Actively participating in social welfare and charitable donations • Encouraging employees to volunteer • Participating in community programs

Stakeholders	Expectations for CSCEC	CSCEC's Communication and Response
Partners	<ul style="list-style-type: none"> • Legal compliance • Compliance with business ethics • Superior financial and market performance • Long-term partnerships 	<ul style="list-style-type: none"> • Legal contract performance • Project-based collaboration and business negotiations • Regular business communication visits and high-level visits • Executing strategic cooperation agreements • Multi-channel cooperation and research • Leading the industry
Media	<ul style="list-style-type: none"> • Sound disclosure • Enhancing collaboration and communication 	<ul style="list-style-type: none"> • Corporate announcements • Press events • Press releases
Academic institutions	<ul style="list-style-type: none"> • Collaboration and communication • Industry-university-research programs • Research assessments 	<ul style="list-style-type: none"> • Recruitment promotion • Employee training • Academic exchanges • Collaborative R&D • Key technology breakthroughs

Double Materiality Assessment

During the reporting period, CSCEC conducted a double materiality assessment of ESG topics that stakeholders found important. The assessment followed the process outlined below:

CSCEC's double materiality assessment process



Topic Identification

CSCEC identifies and tentatively defines sustainability-related topics while evaluating their actual and potential

impacts, risks, and opportunities as a foundation for subsequent materiality assessment.

The CSCEC ESG Metrics System (2025 Edition) aligns with A-share guidance, GRI Standards, and ESG capital market rating frameworks such as MSCI and DJSI. Based on the CSCEC ESG Metrics System and industry benchmarks, we identify relevant topics.

- 1 **Policy** We identify key topics based on our analyses of national, local, and industry-specific policies and standards.
- 2 **Peer benchmarking and market trends** The Company refers to the topic setting and prioritization among industry peers and supply chain players to understand key topics and identify topics worthy of attention.
- 3 **CSCEC's ESG materiality matrix** We refer to historically material topics in our annual double materiality assessment.

Through the measures above, we identify material topics and create of list of topics.

Identified topics

— Dimension —

— Topics —

Environmental

9 topics

Climate change response, pollution, waste disposal, ecosystem and biodiversity conservation, environmental compliance, energy use, water use, circular economy, as well as green opportunities and sustainable construction

Social

9 topics

Rural vitalization and social contribution, innovation-driven development, tech ethics, supply chain security, equal treatment to SMEs, product and service safety and quality, data security and customer privacy, employees, and occupational health and safety

Governance

5 topics

Due diligence, stakeholder communication, anti-bribery and anti-corruption, anti-unfair competition, ESG governance

Materiality Assessment

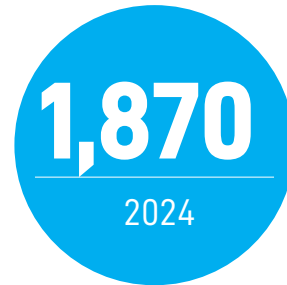
CSCEC evaluates each topic's financial and impact materiality to determine its actual and potential impact, as well as major risks and opportunities. Based on the identified topics, we prepare financial materiality and impact materiality surveys. The former targets departments including finance, investment, project execution, strategy, ESG Working Group, and other entities that understand the Company's finances to collect data. Meanwhile, impact materiality surveys are distributed widely to both internal and external stakeholders, with the results analyzed by external ESG experts.

Topic Review and Approval

In double materiality assessments, once data collection and analyses are completed, results are shared with heads of the finance department, key business units, and the ESG Working Group, along with internal and external ESG experts. They thoroughly assess the results and send feedback to ensure data accuracy, validity, and topic completeness. Then, we prioritize ESG topics to guarantee complete evaluations and robust decision-making afterward, and highlight key content in the ESG report.

Key performance 

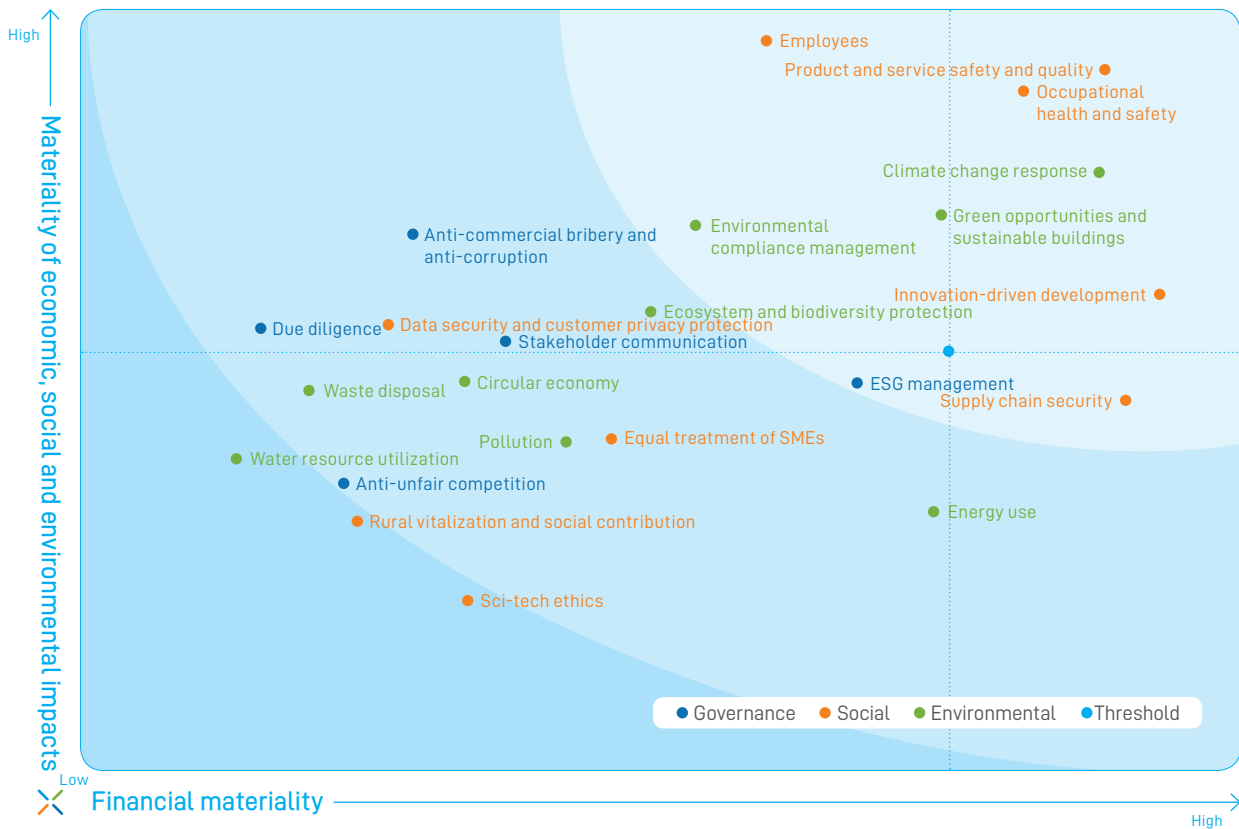
Questionnaire Responses:



Results of the Double Materiality Assessment

Based on survey results and industry benchmarking, we consolidate input from multiple levels, including the management, business units, subsidiaries, and external experts, generating the double materiality assessment results.

CSCEC's Double Materiality Matrix for 2024



Feature **One**

Technology for Better Future, Innovation for Chinese Construction

In response to people's ever-growing desire for a better life in the new era, higher demands have been placed on the construction industry. CSCEC continues to leverage our leadership in tech innovation for sci-tech self-reliance and self-strengthening at higher levels. These efforts help elevate the global reputation of Chinese approaches to construction and fuel the Company's transformation and sustainable growth.



Led by Strategy

In response to national strategies and the Company's high-quality development goals, CSCEC has strengthened the sci-tech innovation system and mechanism and built a new paradigm for sci-tech innovation and development. In 2021, the Company formulated and issued the 14th Five-Year Special Plan for Science and Technology, outlining development goals and key tasks for innovation. The plan promotes deeper integration between innovation

and industrial development, with a strong focus on nurturing emerging industries.

Focusing on business transformation, CSCEC has built an innovation system featuring "8 strategic directions + N commercialized technology clusters," forming a comprehensive innovation ecosystem that spans from basic research to industrial application.

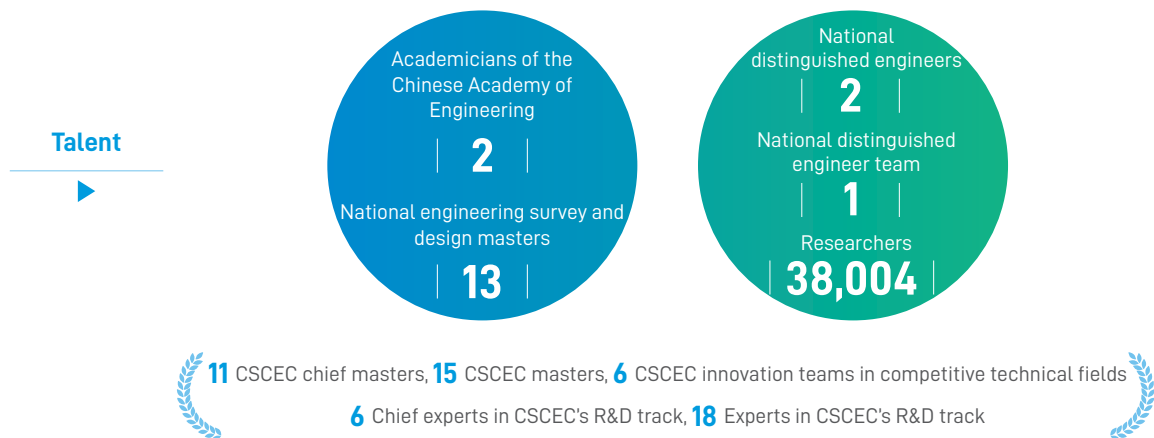
↳ "8 strategic directions + N commercialized technology clusters" innovation system

<p>8 strategic directions:</p> <p>Guided by the goal of high-quality development, the Company advances research in eight strategic areas—domestic software, intelligent equipment, new energy for construction, new materials, urban renewal, urban operations, green and low-carbon development, and living environments under extreme conditions—forming industry-leading technology clusters.</p>	<p>N commercialized technology clusters:</p> <p>Through product innovation, the Company has developed multiple clusters of commercialized technologies.</p>
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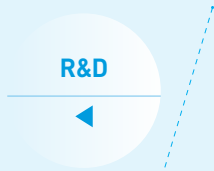
Innovation for Chinese Construction

Leveraging our full-ecosystem business, CSCEC has built a technology system consisting of construction product R&D, digital manufacturing, intelligent construction, smart operations & maintenance, as well as green and

low-carbon solutions. With world-class technologies across the entire intelligent construction value chain, we continue to drive reform in production and organizational models through ongoing sci-tech innovation.



- 10,362** Invention patents
- 75** Provincial-level enterprise technology centers
- 72** Provincial-level sci-tech innovation platforms
- 19** Postdoctoral research centers
- 248** High-tech subsidiaries
- 4** Single-item top enterprises in manufacturing
- "2+6"** CSCEC sci-tech innovation platform
- 6** Joint innovation research institutes



- 102** National or industry standards that we draft
- Since the 13th Five-Year Plan (2016 and 2020) started,
- 14** National key R&D projects as a leader
- 73** Research topics as a leader
- 197** Research topics as a supporting role
- High-level societies and associations that we joined (e.g., China Civil Engineering Society, China Construction Industry Association)
- 13**
- 48** Technology alliances that we lead or participate in
- 2** National technology alliances
- 84** National sci-tech awards received (cumulative)

Case

CSCEC Science and Technology Exhibition highlights achievements in nurturing new quality productive forces in the construction industry

On September 26, 2024, CSCEC launched the first Science and Technology Exhibition in Beijing. The event featured three main themes: "Building a Harmonious City," "Expanding a Happy Living Environment," and "Promoting China-built," along with seven specialized exhibition zones focusing on livable cities, resilient cities, smart cities, green and low-carbon development, good houses, intelligent construction, and major-country construction. We showcased 167 technologies and applications reflecting CSCEC's progress in digitalization, industrialization, and intelligent development, demonstrating the Company's strong commitment to fostering new quality productive forces in the construction sector. The Exhibition received widespread praise from central government officials, the authorities, and the public. On November 18, Li Qiang, Member of the Standing Committee of the

Li Qiang, Member of the Standing Committee of the Political Bureau of the CPC Central Committee and Premier of the State Council, visits the CSCEC Science and Technology Exhibition



Political Bureau of the CPC Central Committee and Premier of the State Council, visited the Exhibition.

"It is imperative to implement General Secretary Xi Jinping's key instructions on housing and urban development and empower Chinese approaches to construction with tech innovation, with a focus on delivering safe, comfortable, green, and smart 'good houses'. Reshaping the real estate development model will better meet public demand for high-quality living."

Li Qiang, Member of the Standing Committee of the Political Bureau of the CPC Central Committee and Premier of the State Council



Scan the QR code to enter the VR hall of the CSCEC Science and Technology Exhibition

Building a Harmonious City

Future cities should be livable, resilient, and smart, with new models for urban construction, operations, and governance. We should also properly arrange production, living, and ecological spaces to balance humanity and nature, growth and sustainability. CSCEC has made significant progress in building

livable, resilient, and smart cities. Through innovative practices in urban planning, functionality enhancement, as well as ecological protection and restoration, the Company contributes to the building of harmonious cities that meet the evolving expectations of a better life.



Livable cities

We develop garden cities, water environment management and soil management.

CSCEC's integrated solutions for garden city ecological enhancement have been applied in the Xi'an Happiness Forest Belt Project—currently the world's largest underground space utilization project and China's largest urban forest belt. The project has reduced land usage by around 1.47 km² and improved the Environmental Comprehensive Index (ECI) by 2–3 levels year over year, cutting carbon emissions by approximately 18,000 tons annually.



Resilient cities

We enhance public services and emergency response capabilities by enabling smart detection, proactive alerts, and rapid response for disasters such as fires and floods to strengthen urban safety.

The Urban Lifeline Operations and Management Platform combines risk assessment models, IoT sensing equipment, and big data capabilities to monitor infrastructure in real time, provide dynamic alerts, and coordinate emergency handling. It also predicts the impact scope, methods, duration, and severity of emergencies, offering technical support for rapid and coordinated response. The platform has been implemented in safety monitoring systems across Hubei Province, Jingzhou City, and Jiangling County.



Smart cities

We deepen structural reforms in urban construction, operations, and governance to build a highly efficient, smart governance system.

China Construction Science and Industry's 600kW supercharging piles, with an efficiency rate of 96.34%, enable full charges in the time it takes to finish a cup of coffee. China Construction Science and Industry has also developed smart city supporting infrastructure, including new energy bus depots, smart locks, intelligent highways, and digital industrial parks. The Smart City Operations and Management Platform has significantly raised the efficiency of urban operations and played a key role in Urumqi.

Expanding a Happy Living Environment

CSCEC aims to meet the growing demand for quality living and working environments. Guided by our mission to "Expand a Happy Living Environment," the Company focuses on building good houses and exploring

technologies that transform older houses into good ones, which will improve living standards. Bearing local needs in mind, CSCEC delivers good houses that are safe, durable, healthy, comfortable, green, low-

carbon, smart, and convenient, making better living a reality. In 2024, the Company published research on urban renewal and urban village redevelopment and encouraged subsidiaries to accelerate progress in urban

renewal. During the reporting period, CSCEC secured 1,081 new urban renewal projects with a total contract value of RMB 294.07 billion, marking an 18.9% year-on-year increase.

“Good house” system

Safety

CSCEC enhances construction quality through smart and prefabricated building methods. Digital house records are created for maintenance. Integrated bathroom systems are adopted to eliminate leakage issues, while smart controls for water, electricity, doors, and gas ensure user safety. Durable, replaceable materials and piping are used to align with building's life cycles.

Health

SCEC adopts a full-process healthy interior system across design, material selection, construction, and testing to meet long-term standards for air, water, and noise control. The Company integrates advances in medical-engineering collaboration and human factors engineering to enable automatic adjustments in temperature, humidity, and lighting for better physical comfort.

Green

CSCEC fully complies with green building standards and promotes near-zero energy buildings. Green materials and top-rated or variable-frequency energy-efficient equipment are widely used. The Company also raises electrification levels, increases the use of non-traditional energy sources, pilots flexible DC power, visualizes carbon data, and integrates energy dashboards for intelligent management.

Intelligence

The Company adopts secure full-house smart solutions to protect privacy. Simplified control with multiple interaction modes caters to the needs of all age groups and special groups. One-touch operation enables full-device connectivity, while linking houses with vehicles and community systems realizes centralized management.

Case

Shanghai Jianguo East Road Historical Landscape Protection and Urban Renewal Project

Located in central Shanghai, the Jianguo East Road project represents Shanghai's largest Shikumen-style residential block. The area includes 13 protected heritage sites, such as the former residence of the famous author Ba Jin and Rongjin Grand Theater. Covering about 147,500 square meters and involving the relocation of 8,500 households and roughly 40,000 residents, the project follows a "preservation-first" principle. Through renovation, elevation, and on-site restoration, the project preserves historic styles while blending

↳ The preservation and urban renewal project of Jianguo East Road, Shanghai



modern design with traditional alleys. Notable achievements of the project include architectural preservation, craftsmanship revival, steel-structure housing innovation, and breakthroughs in noise insulation. The transformative project has revitalized the district from an unattractive residential block into a thriving urban belt.

Promoting China-built

CSCEC is committed to driving the transition of the construction industry toward green, smart, and industrialized operations through new quality productive forces. By introducing industry-specific smart factory pathways and promoting transformation

in production methods, the Company has developed an integrated smart construction solution and advanced engineering equipment that strengthen the global reputation of Chinese approaches to construction.

Smart construction

CSCEC advances reform for smart construction and emphasizes standardization and industrialization. The Company employs digital design, factory-based production, intelligent construction, and smart operations to achieve end-to-end digitalization and enable sustainable, green development.

throughout the construction process.

Digital industry: To accelerate digital transformation, the Company has built platforms for worker management, integrated construction, digital supply chains, and the smart management of all production elements. CSCEC continues to invest in the basic research of digital technologies to speed up industrial digitalization.

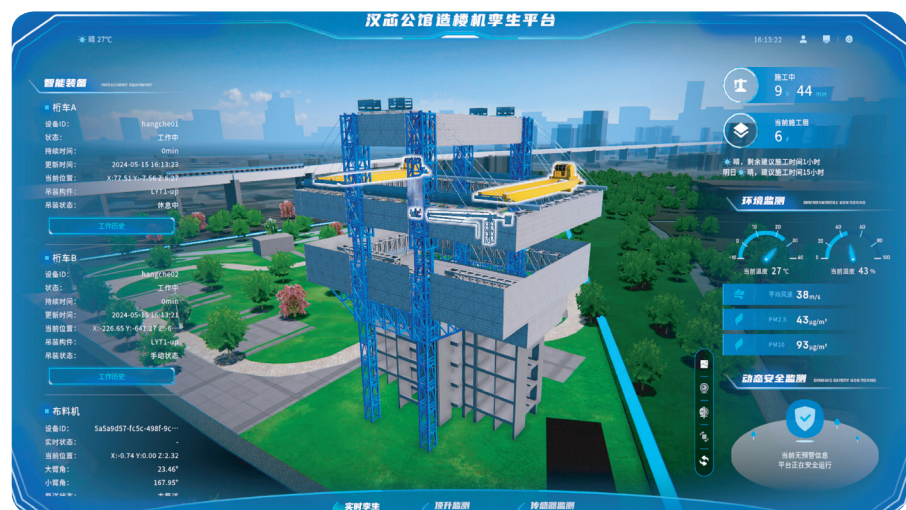
Industrial software: CSCEC accelerates the evolution of the construction software ecosystem and adopts more domestic software to support the high-quality and sustainable development of the construction industry.

The Company's integrated smart construction solution features a collaborative work data foundation, creating a manufacturing system from parts and components to modular units, with on-site assembly and smart logistics. This data-driven approach serves as a digital engine for smart construction during the entire construction process. The solution has been applied in over 100 projects, including Hanxin Mansion and Hanyun Mansion in Wuhan, as well as the Huafu Village project in Shenzhen.

Smart factories: The Company continues to develop smart technologies and optimizes manufacturing workflows to build intelligent, efficient, eco-friendly, comfortable, and employee-centered factories. This offers comprehensive smart factory solutions for the construction industry.

Integrated smart construction solution

Smart construction sites: Focusing on the entire construction process, CSCEC has developed technologies covering multiple areas, such as work safety, project management, and construction robotics. These innovations enable comprehensive sensing, intelligent analyses, and coordinated management



Case

Longgang Modular Smart Construction Industrial Park of Zhongjian Hailong

Zhongjian Hailong Technology Co., Ltd. (Zhongjian Hailong) has built a comprehensive R&D team for modular construction and operates eight modular construction production bases nationwide, covering a total area of roughly 1.33 km². With an annual output capacity of 120,000 modules, Zhongjian Hailong has delivered modules for projects exceeding 3 million m², achieving an average annual growth rate of 25%. The Longgang Modular Smart Construction Industrial Park aims to become China's first national-level green factory producing modular components. The park integrates a highly intelligent modular manufacturing system, including green, smart concrete production lines, automated remodeling

Longgang Modular Smart Construction Industrial Park of Zhongjian Hailong



robots, and smart warehousing and logistics, delivering advanced equipment for the smart prefabrication of green housing.

Major-country construction

Guided by national policies, CSCEC remains committed to self-dependent innovation, with a focus on core equipment, critical technologies, and major projects. The Company continues sci-tech self-reliance and self-strengthening at higher levels to strengthen innovation capabilities and core competitiveness, supporting the long-term development of China's construction industry.

CSCEC has made breakthroughs in six core technologies, including high-precision installation of massive base structures, minimized friction in the vertical sliding for heavy loads, redundant parallel-drive control, automatic adjustment and locking for the moving beam, high-volume instant oil supply, and component brittle-failure safety protection. Together, these breakthroughs have enabled the creation of the world's most powerful and largest 10,000-ton multi-functional testing system, integrating both static and dynamic testing with the longest actuator

10,000-ton multi-functional testing system



stroke available. The system ensures data security for strategic infrastructure and has supported more than 20 key projects, including the Zhangjinggao Yangtze River Bridge and the Shiziyang Grand Bridge in Guangzhou.

CSCEC has developed a series of innovations for precise, stable, and safe repositioning of entire buildings, including alternating walking machine rotation and relocation, position limit beams, hydraulic control systems, and others for error correction, and integrated basement rotation and structure unloading technology, achieving 100% alignment with project expectations. As a result,

we have shortened project timelines by over 90% and realized a material reuse rate of over 85%. So far, we have achieved the largest and heaviest building rotation and relocation project in China, setting a Guinness World Record for the longest arc rotation of a pivoted building. We have applied our technology in the relocation of the Xiamen Houxi Long-Distance Bus Station.

Large-scale building relocation technology and equipment



Cloud construction factory



The cloud construction factory integrates track-mounted construction robots to replicate factory-like working conditions. This setup enables real-time, safe, and efficient on-site industrial operations. It not only speeds up construction but also reduces noise, dust, and light pollution, minimizing disruption to nearby communities. Additionally, it provides a safer and more comfortable environment for construction workers. The cloud construction factory has been implemented in multiple projects, including the China Construction Fourth Engineering Division Sci-Tech Innovation Tower and Yinghuayue Mansion in Guangzhou.

The BeiDou technology offers millimeter-level accuracy and, with the satellite-based augmentation system, delivers precise positioning even in extreme weather or remote locations without internet access. This technology has been applied in over 50 major projects, including the Ping An Finance Center in Shenzhen and CITIC Tower in Beijing.

BeiDou satellite positioning equipment for construction projects



Feature Two

↳ The largest near-zero energy consumption "good community" in southern China-Shanghai Top Scientists Community



Climate Change Response and Green Development Responsibility

Guided by China's 30•60 Decarbonization Goal, CSCEC advances green transition with a global perspective and explores GHG reduction pathways across the Company and the entire value chain to create an innovative model for sustainable development. In response to the global climate challenge, CSCEC integrates the concept of green development into all aspects of business management, following the strategic goal of "one creation and five aspects of strength" and the strategic path of "1+6+6" to accelerate the transition to green, low-carbon development.

Governance

CSCEC has established a "dual carbon" governance system and a Leadership Group on Carbon Peaking and Carbon Neutrality headed by the Chairman of the Board of Directors, with a subordinate Working Group on Carbon Peaking and Carbon Neutrality, responsible for driving progress towards the "dual carbon" goals and relevant tasks in every aspect. Each second-tier subsidiary has appointed dedicated leaders, departments, and personnel

to oversee these efforts, with "dual carbon" metrics and targets embedded into the evaluation systems of subsidiaries.

During the reporting period, CSCEC held 2 "dual carbon" work meetings dedicated to the carbon peaking and neutrality agenda. To improve employees' professional skills and management capabilities, the Company rolled out 16 ESG online courses for third- and fourth-tier subsidiaries, ensuring full coverage of training programs that include climate change topics.



CSCEC convened the first carbon peaking and carbon neutrality meeting of 2024 to review progress and outline the roadmap for advancing the Company's "dual carbon" agenda.



Strategy

CSCEC has embedded climate response into corporate strategies, guided by the strategic goal of "one creation and five aspects of strength" and the strategic path of "1+6". The Company has also clarified "dual carbon" targets and a strategic path. According to the master plan of green development, we take actions for energy efficiency and emissions reduction and strengthen low-carbon investments and operations, with nine "dual carbon" priorities to promote low-carbon and digital transformation.

Leveraging our full-value-chain presence in investment and construction, CSCEC has developed a multi-dimensional climate risk assessment matrix. Climate resilience is embedded in the Company's standards for major projects, full-project-cycle carbon management, and asset operations. As we promote the green transformation of conventional businesses and foster emerging low-carbon industries, we enhance CSCEC's capabilities of climate risk response and green value creation.

Climate risk identification and response measures

Risk type	Climate change risks	Time frame	Potential financial impact	Response measures
	Transition risk			
Policy risks	<p>Tighter regulatory and emissions reduction requirements</p> <p>Under China's 30•60 Decarbonization Goal, SASAC has set carbon intensity reduction targets for central SOEs, and both the National Development and Reform Commission and the Ministry of Housing and Urban-Rural Development have issued requirements on energy conservation and carbon reduction. These changes have intensified regulatory oversight and emissions standards, increasing CSCEC's compliance risks and associated costs.</p>	Long-term	<p>Higher environmental compliance costs</p> <p>Declining profitability</p>	<p>The Company has embedded green and low-carbon principles into the corporate strategy, formulated the <i>Work Plan for Accelerating Energy Efficiency and Carbon Reduction</i> and developed an end-to-end digital, standardized carbon management platform.</p> <p>We have expanded into distributed energy, promoted green construction methods, built low-carbon office spaces, and optimized energy management.</p> <p>We have added the "dual carbon" business unit, improved the "dual carbon" management structure, and focused on policy research and decarbonization talent development.</p>
Technological risks	<p>Emergence of low-carbon, green technologies, materials, and equipment</p> <p>New technologies reshape the way buildings are developed, operated, and maintained. The rise of modular construction, prefabrication, and renewable energy technologies requires companies to adapt to stay competitive.</p>	Mid-term	<p>Rising production costs</p> <p>Declining profitability</p>	<p>CSCEC has developed and released a catalog of 83 green and low-carbon innovation products and promoted their adoption.</p> <p>The Company has strengthened the R&D and use of low-carbon building materials, including low-carbon radiative cooling materials, and promoted smart air-conditioning technologies and low-noise, efficient heat pumps.</p> <p>We have expanded the applications of modular construction, prefabricated interiors, and modular mechanical and electrical systems, while optimizing the production and logistics of prefabricated components. We have developed the concrete modular composite (CMC) products and smart production lines, and continued to upgrade prefab construction.</p> <p>We apply new-generation information technologies, including AI, big data, and cloud computing, and accelerate the promotion of smart construction platforms, smart logistics management, smart mapping tools, and other intelligent equipment.</p>
Market risks	<p>Fluctuations in raw material prices</p> <p>As China's emissions trading scheme expands to include cement, steel, and aluminum sectors, increasingly strict quota allocations drive up upstream costs, which in turn raise procurement costs for construction materials.</p>	Mid-term	<p>Rising operating costs</p>	<p>CSCEC continues to advance technological and material innovation, step up the R&D and application of new materials such as low-carbon solid waste cementitious material, and increase the use of recycled construction materials.</p> <p>The Company has developed a green supply chain implementation plan, incorporated environmental, energy-saving, and emissions-reduction metrics into supplier assessments, and promoted green certification and carbon reduction in the upstream construction materials industry.</p>
	<p>Shifting customer behavior</p> <p>As customers increasingly prioritize environmental protection and low-carbon development, there are growing requirements for low-carbon operations and ecological solutions, driving up both management and operating costs.</p>	Mid-term	<p>Rising operating costs</p> <p>Reduced revenue</p>	<p>CSCEC builds good houses, good communities, and good urban areas, contributes to urban renewal and the energy-saving upgrades of buildings, enhances green operational capabilities, and expands into urban operations.</p> <p>We fully deliver green building standards, seek green building certifications, scale the development of high-rated green, near-zero-energy, and net-zero carbon buildings, and promote commercialization and industrialization under our "dual carbon" agenda.</p>

Risk type	Climate change risks	Time frame	Potential financial impact	Response measures
Reputational risks	<p>Negative reputational impact from business violations</p> <p>Construction activities may cause environmental disruption or biodiversity loss, prompting concern and negative feedback from stakeholders, which could damage the Company's reputation.</p>	Mid-term	<p>Rising financing costs</p> <p>Reduced revenue</p> <p>Increased credit risk</p>	<p>CSCEC has issued a series of guidelines, including the <i>Management Measures of CSCEC for Eco-Environmental Protection</i> and the <i>Management Regulations of CSCEC on Responsibilities for Eco-environmental Protection</i>, to clarify responsibilities.</p> <p>We have established a feedback and interaction mechanism to respond to stakeholder concerns and implemented timely corrective actions, with clear objectives, measures, and disclosed correction plans.</p>
	<p>Weather-related events such as storms, floods, droughts, or heatwaves</p> <p>Severe climate events—typhoons, heavy storms, and floods—pose acute risks that can halt or delay construction, impacting project schedules and quality. These disruptions can lead to direct financial losses and increased construction costs.</p>		Long-term	<p>Decline in asset value</p> <p>Reduced production capacity</p> <p>Rising maintenance costs</p> <p>Rising operating costs</p>
Chronic risks	<p>Long-term climate changes, such as rising temperatures and sea levels</p> <p>There are potential safety hazards in the workplace, requiring companies to increase investment in employee health and safety.</p>	Long-term		<p>Rising operating costs</p>

Climate-related opportunity analysis

Opportunity type	Climate-related opportunities	Potential financial impact
Markets	Many aging buildings face challenges related to insulation and energy efficiency due to climate change, driving the demand for energy-efficient renovation. This has accelerated the adoption of renewable energy in buildings and expanded the green building market in response to growing consumer demand.	<p>Increased revenue in strategic emerging industries from the expansion into emerging markets;</p> <p>Appreciation of fixed assets;</p> <p>Increased market share and revenue growth.</p>
Products and services	There is a growing need to develop and apply more efficient energy-saving technologies, such as high-performance insulation materials, smart lighting systems, and building-integrated photovoltaics. These innovations facilitate the construction industry's transition toward low-energy, low-emission models.	Increased revenue from rising demand for products and services and shifting consumer preferences.
Energy	Renewable energy technologies in buildings—including solar water heaters, photovoltaic power systems, and geothermal heat pumps—are becoming increasingly widespread.	<p>Reduced exposure to future energy price volatility;</p> <p>Growth in clean energy operations.</p>
Resource efficiency	More efficient use of building materials, water, and land resources accelerates the development of a circular economy.	<p>Reduced operating costs;</p> <p>Increased operating income.</p>
Resilience	There is a steady rise in the development and maintenance of climate-adaptive infrastructure projects, including sponge cities, flood control systems, and disaster prevention and reduction initiatives.	Increased revenue and asset appreciation from more adaptive products and services.



From 2021 to 2022

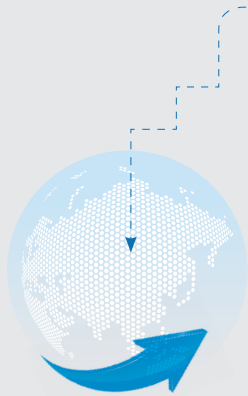
We and our subsidiaries conducted internal audits on energy consumption and carbon emission baselines, studied relevant policies issued by the State Council and ministries, and analyzed carbon emissions and industry dynamics. Based on this, the Company set key targets and defined a roadmap to peak carbon emissions.

From 2022 to 2023

CSCEC launched nine carbon peaking actions covering areas such as blueprint design, corporate governance, construction & investment, surveying and design, construction methods, business transformation, technological innovation, carbon trading, and carbon ecosystem. We also developed a carbon peaking roadmap, built a comprehensive carbon emission monitoring platform, and initiated model projects for energy conservation and carbon reduction.

Between 2024 and 2030

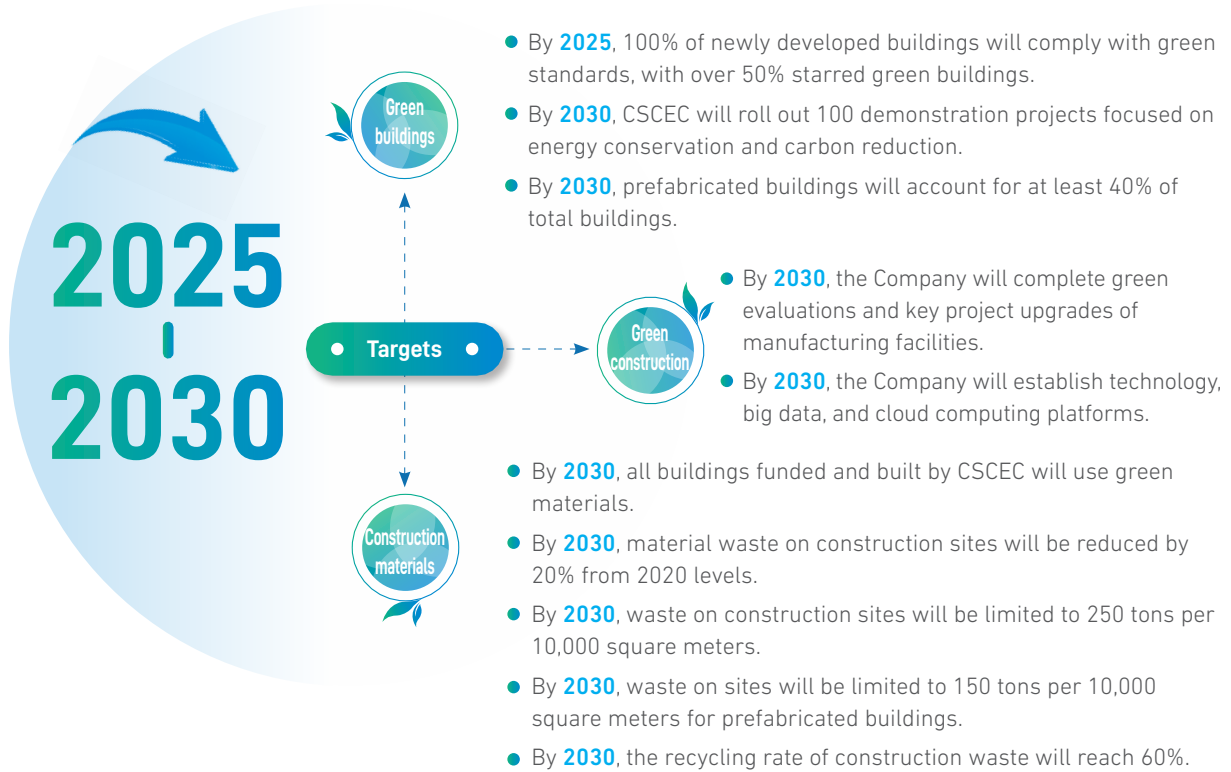
CSCEC will deliver a series of model projects for energy conservation and carbon reduction, develop a green supply chain, and introduce a portfolio of green, low-carbon products. The Company will also advance carbon accounting and verification services, generate technological outcomes, foster talent pipelines, and develop key industry standards. We will drive green finance collaborations, promote industry alliances, and build a globally recognized green brand.



2024

Progress of our "dual carbon" strategy in 2024

- We completed a full-scope carbon inventory for the second consecutive year, covering over **15,000** projects across **7** business segments.
- We finalized acceptance and review of the CSCEC Carbon Emission Monitoring and Comprehensive Management Services Platform research project.
- We issued the *Action Plan for Accelerating Energy Conservation and Carbon Reduction*.
- We introduced green and low-carbon management as a key evaluation metric in the subcontractor and supplier assessment system for the first time.
- We released **97** "CSCEC carbon peaking and carbon neutrality advanced technological outcomes" (third batch).
- We compiled a catalog of **226** products in green, low-carbon development, strategic emerging industry, and sci-tech innovations.
- We delivered **63** site-based green and low-carbon construction achievements.
- We selected the first group of **30** candidate green and low-carbon office locations.
- Our green mall attracted over **8,000** green building material suppliers.
- We established several alliances, including the Carbon Think Tank Alliance, the PEDF (Photovoltaic, Energy storage, Direct current, Flexibility) Alliance, the Innovative Alliance of Solid Waste Recycling, and the CSCEC BIM Innovation Development Alliance.



01 Promoting "dual-carbon" products

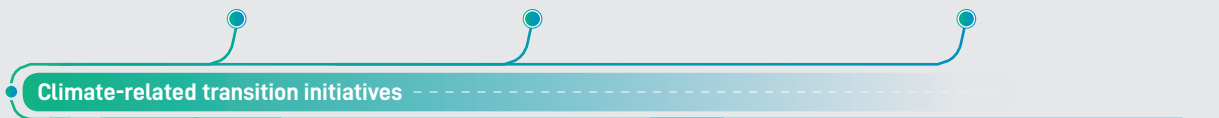
Following the *Guidelines on Promoting and Applying Catalog Products*, CSCEC developed 226 products in green, low-carbon development, strategic emerging industry, and sci-tech innovations. Subsidiaries have adopted 132 of these products.

02 Building model green construction sites

We organize subsidiaries to participate in green construction performance evaluations hosted by the China Association of Construction Enterprise Management and construction technology competitions hosted by the China Construction Industry Association. A total of 237 projects have been rated as starred projects for green construction by the China Association of Construction Enterprise Management.

03 Conducting "dual-carbon" research

Based on the Company's dual-carbon technology roadmap, we have initiated 24 R&D projects in the areas of green, low-carbon development, new materials, and renewable energy.



04 Exploring green construction methods

CSCEC has adopted green, industrialized, and intelligent construction methods to create green building benchmarks. Our innovations include a factory-style smart integration platform, micro-convex support systems, and fully adjustable prefabrication processes.

05 Advancing green financing business

Guided by green development principles, we collaborate with regulators and financial institutions to conduct green financing research. We leverage green bonds, sustainability-linked loans in the real estate sector, green building renovation loans, green asset-backed securities (ABS), and REITs to secure low-cost capital for green projects and R&D efforts.

06 Expanding "dual-carbon" influence

The Company participated in COP 29 under the *UN Framework Convention on Climate Change* and co-hosted the 2024 International Zero-Carbon Cities, Villages, and Buildings Summit with the China Association of Building Energy Efficiency.

During the reporting period, guided by the “One-Ten-Hundred-Thousand-Ten Thousand” project⁰⁵ for carbon peaking, the Company implemented 12 subprojects and 28 detailed measures. We also accelerated the commercialization and marketing of dual-carbon technologies, delivered energy-efficient, low-carbon projects, and expanded the use of the carbon monitoring platform across projects to ensure practical execution.

Our subsidiaries continue to strengthen their organizational frameworks, optimize “dual carbon”

departments and staff arrangements, and study how to formulate subsidiary-specific carbon peaking action plans and duties. They have issued their “dual carbon” policies. Some subsidiaries have established their research institutes for green and low-carbon development. For example, CSCEC Third Construction Bureau coordinates sci-tech innovation for green, low-carbon development, with a consulting center, a zero-carbon building research center, and a low-carbon construction research division, further enhancing the power of sci-tech innovation.

↳ “Dual carbon” policy list (selected examples)

Key policies	Released by
<i>Action Plan for Accelerating Energy Conservation and Carbon Reduction Guidelines on Promoting the Use of Catalog Products</i>	CSCEC
<i>Special Development Plan for Green and Low-Carbon Business (2024 Edition)</i>	China Construction First Group Co., Ltd.
<i>Carbon Peak Implementation Plan</i>	China Construction Second Engineering Bureau Ltd.
<i>Carbon Management System Building</i>	China Construction Fifth Engineering Division Corp., Ltd.
<i>Guide to Green and Low-Carbon Office Practices (Trial)</i>	China Construction Sixth Engineering Bureau Corp., Ltd.
<i>Carbon Control Action Plan</i> <i>First Catalog of “Dual Carbon” Technologies and Products</i>	China State Decoration Group Company Limited
<i>Carbon Peaking Action Plan</i>	China Southwest Geotechnical Investigation & Design Institute Co., Ltd.

Impact, Risk and Opportunity Management

CSCEC identifies climate change as a key operational risk and has incorporated it into *the Risk Element Library (2024 edition)* and the corporate risk identification system. Recognizing the potential implications of climate risks, the Audit and Risk Committee of the Board of Directors conducts regular oversight of all risk management activities, including those related to climate, and drives ongoing assessments of climate risks.

For this report, the Company has conducted surveys

to gather input from relevant functional departments, the ESG Working Group, and external stakeholders familiar with corporate finance. From dimensions such as financial impacts and likelihood of occurrence, we discuss, identify, and evaluate climate risks and opportunities, and their actual and potential impacts on revenue, costs, capital investments, and brand reputation, helping us understand how ESG factors affect our financial performance. Results of the survey guide our analyses and management of climate-related risks and opportunities.

— The “One-Ten-Hundred-Thousand-Ten Thousand” consists of one action plan for carbon peaking, one management platform for carbon emissions monitoring, and one action initiative for employees; ten key low-carbon/zero-carbon demonstration projects and ten enterprises of the new segment of “dual carbon;” 100 key green and low-carbon technologies, 100 green construction demonstration projects, and 100 green and low-carbon international cooperation projects; 1,000 green and low-carbon technology application scenarios, RMB 100 billion in green financing, and 1,000 green and low-carbon offices; 10,000 green and low-carbon construction sites, 10,000 green supply chain enterprises, and 10,000 “dual carbon” professionals.

Metrics and targets

CSCEC maintains ongoing tracking of GHG emissions with an interlinked carbon data management system covering headquarters, subsidiaries, and project sites. A specialized carbon inventory task force comprising 12 internal technical teams has released technical guidelines and Q&A manuals on carbon inventories and invited certified third-party carbon accounting bodies to provide technical guidance and auditing services. For the second consecutive year, CSCEC has completed a full-scale carbon inventory across over 15,000 domestic

projects, spanning seven business segments: housing construction, infrastructure construction, specialized engineering, housing operations, infrastructure operations, office spaces, and manufacturing. This makes CSCEC the first big company in China's construction sector to conduct a comprehensive carbon inventory. Additionally, the Company has investigated the baseline of carbon emissions for nearly 100 overseas projects and evaluated the full lifecycle carbon footprint of more than 30 residential projects.

Emission reduction metrics

4.3↓
%

In 2023, carbon intensity per RMB 10,000 of output declined by **4.3%** year-on-year.

In 2024, the Company met the SASAC's target for carbon intensity per RMB 10,000 of output.

Note: Carbon accounting primarily covers Scope 1 and Scope 2 emissions.

Key "dual carbon" objectives

By 2025

CSCEC aims to achieve visible progress in business transition and low-carbon development, with the emergence of the second growth curve. This is conducive to building a production and performance assessment system aligned with green, low-carbon, and circular development. All surveying, design, and construction projects will fully adhere to low-carbon principles. We will also complete the energy-efficient evaluations of self-owned properties and demonstration projects in key regions. The Company will step up the R&D and application of green, low-carbon technologies, improve construction quality, and widely promote green production and lifestyles, making CSCEC a leading source of original technologies in green construction and a value chain leader.

By 2030

CSCEC will largely accomplish the transition to green, low-carbon business, with new growth drivers in all aspects and a fully-fledged green, low-carbon development model. We will secure breakthroughs in green materials, technologies, industries, and business models, with competitive products and services. CSCEC will serve as a comprehensive green, low-carbon solution provider for urban and rural development and city operations, playing a critical role in the industry's carbon peaking efforts.

By 2060

CSCEC will possess global core competitiveness in green, low-carbon development, with world-class capabilities in low-carbon industries, products, construction, and operations. We will secure a leading position in both domestic and global operations. The Company will realize the green transformation of production methods and play a pivotal role in the construction industry's path to carbon neutrality, contributing significantly to China's goal of carbon neutrality.

Carbon reduction targets

4.22↓
%

By 2027, CSCEC aims to reduce carbon intensity per RMB 10,000 of revenue by an annual average of **4.22%**, representing a cumulative **12.14%** reduction from 2024 levels.

By 2030, the Company will peak carbon emissions.



Advancing Toward a Low-Carbon and Green Future

Witness ESG — Driving green development and low-carbon transition through ESG initiatives

Aligned

with China's goals of peaking carbon emissions and achieving carbon neutrality, CSCEC has embraced a carbon peaking and carbon neutrality development philosophy. The Company has steadfastly followed a green and low-carbon development trajectory that places ecology at the forefront throughout the entire process of corporate development. We have steadfastly advanced green and low-carbon development, while pushing boundaries in construction height, span, and scale through continuous green innovation. We strive to lead the industry in digital, intelligent, and green transformation. To achieve this, we emphasize long-term economic and social benefits, focus on national strategies and our own development opportunities, and adhere to green production and low-carbon operations. Furthermore, we actively promote the application of green technologies and explore resource-efficient, eco-friendly sustainable development pathways. In doing so, we pave the way for a modern future where humanity and nature thrive in harmony.

This chapter highlights CSCEC's ESG-driven contributions to green development solutions for society.



Environmental Management

We continuously improve our environmental management framework and operational mechanisms. Through regular environmental risk assessments and comprehensive performance evaluations, we work to minimize our operational environmental footprint.

Environmental Management System

CSCEC strictly complies with environmental protection laws and regulations, including the *Environmental Protection Law of the People's Republic of China* and local environmental statutes. The Company has established a robust environmental management system by developing and implementing various institutional documents, including the *Management Measures of CSCEC for Eco-Environmental Protection* and the *Eco-Environmental Protection Management Manual (Trial)*.

We have developed a top-down environmental governance structure, and established a Leadership Group on Eco-environmental Protection, with the Chairman as the leader,

the President and leading official for project performance as deputy leaders, and principal heads of headquarters departments as members, along with an organizational working mechanism. We have also optimized environmental protection staffing at all levels, requiring all subsidiaries to hire adequate full-time and part-time environmental management personnel. Meanwhile, we have enhanced the regulation, constraint, and guidance for environmental management for subsidiaries at all levels and projects. These efforts are aimed at consolidating our environmental management system. As of the end of the reporting period, 34 subsidiaries obtained ISO 14001 Environmental Management System certification.



Responsibilities of the Leadership Group on eco-environmental protection

Leadership Group

- Implementing national guidelines and policies on eco-environmental protection and pertinent national laws and regulations;
- Coordinating, planning, and deploying environmental protection, energy conservation, and emission reduction;
- Studying and determining major matters related to eco-environmental protection;
- Studying and solving major problems in eco-environmental protection;
- Recognizing and rewarding model collectives and individuals in eco-environmental protection.

Office of the Leadership Group

- Raising work recommendations to the Leadership Group and organizing the implementation of the Leadership Group's decisions and deployments;
- Drafting and revising the management system of eco-environmental protection and guiding subordinate enterprises in the formulation of eco-environmental protection work systems;
- Guiding and supervising the eco-environmental protection of subsidiaries;
- Organizing eco-environmental protection training and inspections;
- Raising commendations and rewards for eco-environmental protection.



Environmental Risk Management

CSCEC conducts environmental impact identification and management across all project phases. The Company has developed comprehensive environmental management systems to effectively prevent environmental risks.

Environmental risk identification and management

In strict compliance with applicable laws and regulations, such as the *Law of the People's Republic of China on Environmental Impact Assessment*, we apply a lifecycle approach to environmental risk management, covering investment, construction, and operational stages. Our systematic monitoring covers all critical environmental factors, such as air and water pollution, soil contamination, noise pollution, solid waste, toxic/hazardous chemical usage, and ecological impacts on natural systems (mountains, waters, lakes, farmlands, forests, grasslands,

and deserts). We enforce stringent control measures to mitigate all identified environmental risks.

We have identified key environmental risks that subsidiaries and projects (plants and stations) must address during construction phases. Subsidiaries are required to establish corresponding risk management policies and procedures in addition to conducting regular environmental risk assessments and remediation. They must also properly respond to all environmental incidents to promptly eliminate hazards. At the project level, environmental factor identification and evaluation must be performed, with all measures implemented in compliance with environmental impact assessment reports and local government requirements to mitigate risks in a timely manner.



Environmental emergency management

CSCEC has issued the *Emergency Management Measures for Environmental Pollution Incidents* in compliance with applicable laws and regulations, including the *Emergency Response Law of the People's Republic of China* and the *National Environmental Emergency Response Plan*. Concurrently, we have enhanced our emergency response system and operational mechanisms for environmental

pollution incidents, and standardized handling procedures. We have also established a headquarters-level emergency command center for natural disaster incidents. These measures have strengthened our preparedness and response capabilities, enabling effective mitigation of adverse impacts from environmental pollution emergencies. During the reporting period, we experienced no general and above environmental emergencies.

Resource Utilization

CSCEC has integrated circular economy and resource conservation principles across all operations. The Company actively promotes the use of clean energy sources, such as solar, wind, and hydrogen power, while continuously improving resource efficiency.

Energy Utilization

We require all subsidiaries to establish robust energy management systems and implement quota-based controls for energy and resource consumption. At the same time, we strictly prohibit the use of outdated, energy-intensive, and highly polluting production technologies, processes, equipment, and products that are officially banned by the government. Instead, we encourage the adoption of energy-saving technologies, materials, and equipment. During the reporting period, we issued the *Work Plan for Accelerating Energy Conservation and Carbon Reduction*, which defines phased targets and key initiatives for 2024 - 2027. We mandate that each subsidiary align its energy conservation and carbon reduction strategies with its unique business profile and industry trends, strengthen organizational leadership for energy efficiency initiatives, and develop detailed implementation plans. They also need to enhance monitoring, evaluation, and performance assessment mechanisms to continuously improve energy efficiency.

Energy conservation and efficient energy use shall be integrated into early-stage project planning and require separate electricity metering systems for office areas,

living quarters, and production zones at construction sites. We prioritize low-energy construction technologies and methods while actively developing clean energy supply systems. In addition, we apply green and low-carbon technologies to enhance the entire infrastructure lifecycle - from planning and construction to operation and maintenance.

During the reporting period, we won bids for 15 projects in clean energy and water environmental protection sectors, with a total investment value of approximately RMB 50 billion (including RMB 7.5 billion in equity investment). These comprise: 4 water environmental protection projects involving industrial and domestic wastewater treatment; 11 clean energy projects including photovoltaic power generation, pumped-storage hydroelectric stations, new energy vehicle charging infrastructure, and energy stations. Furthermore, our PEDF⁰⁶ (PV, energy storage, direct current, and flexibility) industrial cooperation alliance has grown to include 29 subsidiaries, and has established industry-research partnerships with leading institutions such as Tsinghua University, China Southern Power Grid, and State Grid Corporation of China.



⁰⁶ PEDF refers to an integrated system encompassing "photovoltaic power generation," "energy storage systems," "direct current power supply," and "flexible electricity consumption." They represent the Company's new strategic focus for achieving green and low-carbon transformation.

Case →

Building a "Zero Carbon Village" demonstration project

The "zero-carbon village" demonstration project, developed by China Construction Science & Technology in Jingxia Village, Huangpu District, Guangzhou, spans a total land area of 335.68 hectares. The project has upgraded 282 rural residences with photovoltaic-integrated systems. It has fully adopted industrialized construction methods while incorporating smart home technologies and clean energy systems. Built around the PEDF new energy system, the project focuses on ten key initiatives, including low-carbon smart buildings, a PEDF DC microgrid, an integrated "solar-

storage-charging" energy station, a village-wide rooftop photovoltaic system, and a digital platform for energy conservation and carbon reduction. These efforts collectively establish a comprehensive zero-carbon energy supply and consumption system. In addition, the project promotes circular eco-agriculture and tech-driven tourism development, and has achieved full electrification across Jingxia Village. It has been selected as one of China's first ten "zero-carbon village" pilot projects, providing a replicable, standardized model for nationwide rural carbon neutrality transformation.

Water Resource Management

To enhance water conservation, we require the installation of water-saving fixtures in all office and living areas at construction sites. Smart water meters

are put in place to measure and analyze on-site usage, while water-saving technologies are fully applied to maximize efficiency.



Water conservation awareness

We organize activities during events like World Water Day and China Water Week to raise employees' awareness of water conservation.

Water conservation planning

We implement efficient water-use plans for production and daily operations, optimize water supply networks at construction sites, and employ water-saving construction methods.

On-site water management

We implement anti-leakage measures to reduce losses in pipelines and fixtures; install rainwater harvesting and greywater recycling systems to treat and reuse wastewater; and closely monitor high-consumption processes like concrete curing and road sprinkling to minimize waste.

Use of Building Materials

In actively building a modern construction industry ecosystem, CSCEC has collaborated with upstream and downstream partners to reduce carbon emissions across building material supply chains. The Company has accelerated the transition to green, low-carbon construction material production, and upgraded concrete production lines with eco-friendly technologies.

Meanwhile, we prioritize certified green building materials, and have significantly increased their utilization rate. Certified wood usage has totaled 269,000 m³ (13.45% of total consumption). In addition, our subsidiary, China Construction E-Commerce Co., Ltd. (yzw.cn), has launched a green building materials marketplace to expand offerings from certified suppliers.

Case

Low-carbon recycling technology for waste wooden formwork

Using its proprietary low-carbon recycling technology for wooden construction waste, CSCEC Third Construction Bureau has developed an innovative form of recycled low-carbon timber made from discarded formwork. The solution delivers near-zero emissions in formwork support systems



while simultaneously cutting project costs and enhancing construction quality. This world-leading technology converts waste wooden formwork into high-value recycled materials through an advanced recycling process, enabling true resource circularity and significant waste reduction.

Emission Reduction and Pollution Control

CSCEC adheres to the principle of targeted, scientific, and law-based pollution control. We have made continuous efforts to prevent and control pollution, to reduce pollutant emissions at the source. During the reporting period, the Company registered zero penalties due to non-compliant emissions.

Wastewater Management

CSCEC strictly complies with laws and regulations such as the *Water Pollution Prevention and Control Law of the People's Republic of China*, and emphasizes the supervision of wastewater discharge during construction and operations. We prioritize centralized collection and treatment of domestic wastewater to ensure compliant discharge. During the reporting period, the Company recorded no incidents of negative impacts on biodiversity due to sewage discharge.

During the reporting period, CSCEC's subsidiary - China State Construction Development Co., Ltd. (CSCEC Development) - provided water supply and drainage services for over 6 million residents across 20 cities in China. With a total daily treatment capacity of nearly one million tons and a pipeline network exceeding 11,000 km in length, CSCEC Development delivered sewage treatment services to nearly 100 towns and 5,000 villages, benefiting approximately 350,000 households and 1.2 million people.

Wastewater treatment measures



- On construction sites, we establish wastewater treatment facilities, such as sedimentation basins (three-stage and five-stage sedimentation). According to relevant regulations, we employ technologies such as segregated drainage systems and integrated wastewater treatment equipment in sewage treatment, ensuring that sewage is discharged only after passing compliance testing.
- For wastewater from grease traps and septic tanks on construction sites and in living areas, we engage professional companies for regular emptying with detailed records kept.
- For storage sites of toxic materials and oils such as chemicals, we employ a stringent design method for water barriers and perform proper collection and treatment of leachate.
- Oily wastewater from machine maintenance shall not be discharged directly into a water body but be collected for treatment in an oilwater separator.
- Water used for road cleaning, vehicle washing, and concrete curing is recycled and reused to minimize wastewater discharge.
- On-site silt-laden muck is dewatered for reuse or transported offsite in sealed containers.

Waste Gas Management

CSCEC strictly complies with laws and regulations, such as the *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution*, and sticks to the "seven 100%⁰⁷" in dust control. At construction sites, we monitor dust concentration in real time and enforce fully enclosed perimeter

management. Water-spraying dust suppression facilities cover all areas of construction activities, and roads at construction sites are hardened. Construction vehicles are loaded without spillage, leakage, or overfilling, and all of them shall undergo wheel washing before entering or exiting the site.

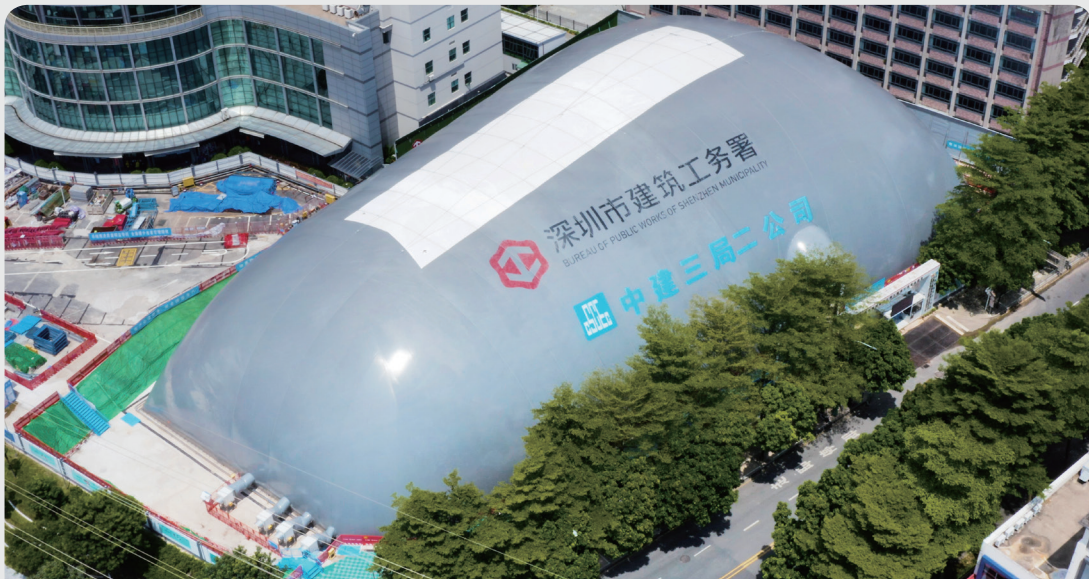
Case

The first successful application of an air-supported membrane structure for foundation pits at construction sites in South China

CSCEC Third Construction Bureau has successfully built an air-supported membrane structure for the Shenzhen Eye Hospital project. This innovative green construction technology enables dust suppression, noise reduction, energy efficiency, fire resistance, and smart operation capabilities. Its exterior featuring a diagonal mesh tightly anchors the membrane to the ground foundation. By maintaining a stable pressure difference

between the interior and exterior, the system creates a fully enclosed, column-free space that effectively contains construction dust. To further enhance dust control, the project installs vehicle wash bays and three-stage sedimentation basins at entrances/exits of the structure, preventing mud from being tracked off-site. These measures achieve over 95% dust suppression efficiency across the construction zone.

↳ The first air-supported membrane structure for foundation pits in South China



— The "seven 100%" refers to 100% enclosure of construction sites, 100% coverage of exposed soil, 100% wheel washing for exiting vehicles, 100% hardening of main site roads, 100% wet-process operations, 100% enclosed transport of construction waste vehicles, and 100% installation of video surveillance and dust monitoring systems.

Waste Management

In accordance with the *Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes* and related regulations, we enforce standardized and responsible solid waste disposal practices. All projects (plants and stations) shall: develop waste management plans following the reduce-recycle-treat-harmlessly principle and file them officially; systematically manage waste generation, collection, storage, transportation, utilization, and disposal; and strictly prohibit unauthorized dumping, scattering or stockpiling of materials. These measures ensure full compliance with national and local environmental standards.

For hazardous waste management, the Company partners exclusively with licensed treatment providers to ensure enclosed waste transportation to qualified disposal facilities. Following strict categorization rules, chemical waste (e.g., oil/paint drums) is stored in specialized containers with anti-leakage treatment prior to transport, while heavy metal waste (e.g., batteries and ink cartridges) undergoes segregated collection and professional decontamination by certified environmental processors.

For recyclable materials, such as steel reinforcement and timber, we implement sorted collection before

selling them to recycling enterprises through centralized bidding. As for waste concrete and masonry materials, we process them into recycled aggregates for use in road base layers or construction products.

For non-recyclable waste, we entrust municipal sanitation departments for disposal in compliance with the *Standard for Pollution Control on the Landfill Site of Municipal Solid Waste*.

During the reporting period, CSCEC issued the *Notice on Further Strengthening Standardized Disposal Management for Idle and Waste Materials*, clearly defining the recycling and disposal procedures. We fully launched online recycling services and established the mutual assistance platform - yzw.cn - to offer end-to-end solutions for material recycling and disposal. The Company formed an Innovation Consortium for Solid Waste Utilization, aiming to deepen the integration of innovation, industry, and capital chains in the solid waste sector, thus advancing the resource recycling industry through collaboration. In the meantime, we progressed with the second batch of pilot projects for "zero waste site." Taking this initiative as an opportunity, we minimized waste generation, boosted recycling rates, enhanced resource efficiency, and achieved waste and carbon reduction across construction processes.

Reduce Environmental Impact

CSCEC strictly complies with the *Law of the People's Republic of China on Noise Pollution Prevention and Control and other relevant regulations*, and takes comprehensive measures to effectively mitigate noise and light pollution.

CSCEC implements comprehensive noise mitigation through a series of approaches: We deploy eco-friendly low-noise/vibration machinery, guarantee regular maintenance, and put in place acoustic barriers to reduce operational impact; strategically schedule construction to avoid noisy operations during midday

and nighttime periods; set up uninterrupted soundproof enclosures around all construction sites; conduct real-time noise monitoring to ensure strict compliance with China's noise standards.

To mitigate light pollution, CSCEC has introduced targeted measures: We shield welding operations to avoid light spillage of arc glare to surrounding areas; equip outdoor construction lighting with directional covers that concentrate illumination strictly within work zones during night operations.

Green Development

Steadfastly following a green and low-carbon development trajectory that places ecology at the forefront, we integrate green, low-carbon, and circular economy principles into the design, R&D, production, and promotion of products and services. Through innovative approaches including eco-design, sustainable manufacturing, green construction, environmental operations, green office practices, and green financing initiatives, we fully capitalize on development opportunities presented by the green transition.

Green Building

CSCEC has actively engaged in green buildings, zero-carbon buildings, and near-zero-energy buildings through innovative green construction practices. We promote prefabrication methods, drive energy-efficient retrofits for existing buildings, and integrate renewable energy solutions. All these initiatives contribute to our mission of delivering eco-friendly and low-carbon building solutions for society.

CSCEC plays an active role in developing green building standards and rules for low-carbon technologies, materials, and quality assessments. We also work with the government to develop carbon emission policies and supervision systems for the construction sector. Specifically, we led the compilation of critical national, local, and group standards, including the *Guidelines on Carbon Accounting of Construction Enterprises*, the *Standard for Carbon Emissions Measurement*

and *Accounting in Urban and Rural Development*, the *Technical Standard for Zero Carbon Buildings*, and the *Evaluation Standard for Green Construction of Buildings and Municipal Works* of the Ministry of Housing and Urban-Rural Development, promoting carbon emission policies and regulatory frameworks in the building sector. At the same time, the Company expanded green certification initiatives. As of the reporting period, we completed 1,013 green/low-carbon projects and 71 green building developments, including 18 near-zero/zero-carbon certified projects.

During the reporting period, CSCEC's subsidiary China Overseas Grand Oceans Group Limited (COGOGL) implemented the *Commercial Green Lease Code* for retail properties and the *Office Green Lease Code* for office buildings. In 2024, COGOGL signed the codes with 92% of existing tenants and all new tenants.

100%

Key performance 

The Company promises that in 2025, **100%** of the new buildings invested in and developed by CSCEC will comply with green building standards, and star-rated green buildings will exceed **50%**.

Whole-lifecycle green building



Guided by green and low-carbon principles, we develop green and low-carbon design solutions for each project based on local conditions. Systematically incorporating low-carbon materials and construction methods, we optimize processes through standardized designs and BIM technology.

We actively adopt new construction methods that are environmentally friendly, industrialized, and intelligent. To reinforce our commitment to sustainable building practices, we have introduced low-carbon building materials, adopted prefabrication solutions, applied energy-saving and emission-reducing technologies, and increased renewable energy integration.

We enhance building energy efficiency through rigorous consumption monitoring and the application of advanced technologies, including magnetic levitation high-efficiency machine rooms, high-efficiency intelligent lighting, and rooftop PV renewable energy. This has contributed to energy saving and carbon reduction.

Case

Building a multi-functional, fully integrated low-carbon community

NEXUS Ideal Land project in Jiading District, Shanghai is the largest and most functionally comprehensive low-carbon community in China undertaken by CSCEC Second Construction Bureau. Combining energy-efficient buildings, low-carbon transportation, and carbon sinks, the project achieves higher energy efficiency, reduced solid waste, and optimized water conservation and recycling. It incorporates a distributed PV system with 40% rooftop coverage, generating 2.57 GWh annually. Its sponge city design ensures a 50% permeable paving rate, while on-site wet waste treatment further cuts emissions. Over the past year, the project reduced

NEXUS Ideal Land, Jiading District, Shanghai



carbon emissions by 5,052 tons and lowered per capita carbon intensity by 32% compared to the baseline, earning zero-carbon certification.



Scan the QR codes to experience "green and intelligent manufacturing"



Building houses like assembling building blocks



Green buildings that generate power, recycle resources, and absorb waste



Experience healthy lifestyles and discover the role of technology in low-carbon buildings

Green Technology Research and Development

We have integrated R&D of green and low-carbon technologies into our overarching corporate technology strategy. With a focus on green building materials, high-efficiency construction equipment, and smart building systems, we have substantially increased investments in technological research to support carbon peaking and carbon neutrality objectives. We have vigorously developed green construction and intelligent building technologies, and worked for breakthroughs in critical areas including building energy efficiency, Building Integrated Photovoltaic (BIPV), and the PEDF system. These innovations have been deployed extensively across our projects.

During the reporting period, as part of our green and low-carbon transition initiative, we launched 24 R&D

projects in construction-related new energy and green technologies, including "Research on Green and Low-Carbon Key Technologies and Development Strategies" and "Development and Application of Efficient Construction Technologies and Equipment for Offshore Photovoltaic Systems." We also established a systematic R&D framework for green and low-carbon technologies, reinforcing our leadership in pioneering sustainable solutions for the industry. Furthermore, we unveiled our third batch of 97 advanced scientific and technological achievements for carbon peaking and carbon neutrality. These innovations, spanning green construction, construction industrialization, and smart construction technologies, have been evaluated by industry experts as meeting "internationally advanced" and "world-leading" standards.

Green and Low-carbon Products

Focusing on cutting-edge green and low-carbon development, CSCEC has expanded the deployment of carbon peaking and carbon neutrality solutions. We have issued the *Guidance on Promoting the Application of Catalog*

Products and published a catalog of 83 innovative green and low-carbon products. We also actively drive the adoption of these catalog products across subsidiaries, with total applications valued at RMB 6 billion.

R&D of
green and
low-carbon
products

China Overseas Holdings Limited (COHL) continues to enhance its comprehensive range of green and low-carbon solutions, including its established Modular Integrated Construction (MiC) and Multi-trade integrated Mechanical, Electrical & Plumbing (MiMEP) systems, and Building Integrated Photovoltaics (BIPV) offerings. The Company has further strengthened its portfolio through the development of advanced low-carbon building materials such as lightweight nanofoam concrete and inorganic fiber composite aerogel panels. Complementing these innovations, COHL has introduced a suite of smart green technologies under its proprietary brands, featuring Haibo smart charging sockets, Haibo smart charging piles, Haibo intelligent lighting systems, along with the X-StarT IoT platform, X-StarT cloud display interface, and X-StarT edge computing system.

China West Construction Group Co., Ltd. has intensified its focus on green and low-carbon product design. The company's new materials division has seen its Chengdu and Huanggang workshops certified as national-level and provincial-level "Green Factories" respectively. Seven of its production facilities have attained "Zero-Carbon Factory" status, progressively strengthening the sustainable qualities of its product portfolio.

China Construction Science and Industry Corporation Ltd. (China Construction Science and Industry) has deployed its energy storage solutions, including the Power BOX, solid-state battery storage systems, and modular energy storage products, across over 50 projects, such as the Shenzhen Design Building. These implementations have demonstrated a 30% average increase in photovoltaic power utilization efficiency, contributing to the development of the new energy industry and energy structure optimization.

Green Finance

Adhering to the fundamental principle of "strengthening industry through finance," the Company endeavors to develop technology finance, green finance, inclusive finance, pension finance, and digital finance. Internally, we systematically identify green financing needs, explore implementation scenarios for green finance initiatives, and build a green and low-carbon financial service system. Externally, we actively engage with commercial banks, securities firms, financial leasing companies, stock exchanges, and other financial institutions to foster collaboration and knowledge-

sharing in green finance. Together, we advance the implementation of green financial products tailored to the construction and real estate industry, such as social responsibility loans and sustainability-linked loans and bonds. These efforts provide sustainable, low-cost funding for the Company's green building projects, including ultra-low energy consumption buildings and near-zero energy consumption buildings. They also drive progress in green construction, low-carbon initiatives, energy efficiency, environmental protection, technological innovation, and digital transformation.

Green finance
initiatives

China State Construction International Holdings Limited (CSCI) engages in green finance practices through various instruments, including green project loans, green medium-term notes (MTNs), and green corporate bonds. In 2024, CSCI was granted an HKD 500 million social responsibility loan from China CITIC Bank International, marking the largest credit facility ever extended to a Hong Kong construction company. The proceeds fund the Kai Tak Olympic Avenue Light Public Housing (LPH) project, which adopts eco-friendly, safer, and labor-saving construction methods to help improve Hong Kong's living environment.

In September 2024, CSCEC Third Construction Bureau successfully issued sustainability-linked corporate bonds on the Shanghai Stock Exchange. The bonds use "green construction certification rate" as a key performance indicator (KPI), with the bond terms linked to the number of its projects achieving "one-star or higher" ratings under China's green construction evaluation standard. With an issue size of RMB 1.5 billion, a tenor of 3+N years, and a coupon rate of 2.24%—a record low for CSCEC subsidiaries and around 10 bps lower than comparable bonds at the time, this issuance sets a benchmark for CSCEC's large-scale adoption of green construction technologies.

In April 2024, China Construction Eighth Engineering Division pioneered an innovative RMB 2 billion hybrid bond on the Shanghai Stock Exchange, merging features of sci-tech innovation bonds with low-carbon transition bonds. The 5-year bond, offering a 2.5% coupon rate, represents a first-of-its-kind financial instrument for the construction sector. It integrates the company's green construction technologies, BIM-based carbon emission management system, and its low-carbon building materials and energy management optimization platform. This issuance is the market's first low-carbon transition-linked bond tying interest rates to construction-phase carbon intensity metrics, setting a benchmark for green finance adoption in the industry.

China Construction Capital Holdings Co., Ltd. (China Construction Capital) actively promotes inclusive finance to support small and medium-sized enterprises (SMEs). Through its supply chain finance platform, it has delivered efficient digital factoring services to over 13,000 SMEs, with cumulative transaction volumes exceeding RMB 31 billion. This initiative helps alleviate SMEs' persistent challenges of limited access to affordable financing, promoting coordinated development across the industry chain.

China State Construction Finance Co., Ltd. (CSC Finance) has established priority-service "green channels" in the technology finance and green finance sectors, offering preferential pricing with cumulative credit disbursements reaching RMB 2.42 billion, a 48.7% year-on-year increase. To facilitate CSCEC subsidiaries' intelligent, low-carbon transition, CSC Finance has pioneered innovative engineering guarantee solutions, eliminating both processing fees and margin deposit requirements for the year. It has successfully issued 150 guarantee instruments for green construction projects, with a total face value exceeding RMB 1.6 billion and underlying contract values of approximately RMB 20 billion.

Green Office

Upholding the principle of “pursuing conservation and running enterprises economically”, CSEEC systematically identifies and mitigates environmental risks across all office facilities. As part of our sustainability efforts, we have launched a campaign to establish 1,000 green and low-carbon office spaces, with the first 30 sites selected as pilot demonstration projects. We have conducted comprehensive

energy audits of our offices and disclosed the findings in the *Corporate Office Energy Consumption Research Report*. In addition, we have introduced the *Initiative on Green and Low-Carbon Behavior of Employees*, encouraging all staff to embrace green development principles, enhance green innovation competencies, and adopt eco-friendly practices in their daily work and personal lives.

Case

CCFED Guizhou Science Research Institute completes a near zero-carbon retrofit of the entire park

Aligned with the “zero-carbon industrial park design certification,” China Construction Fourth Engineering Division (CCFED) Guizhou Science Research Institute has developed a comprehensive zero-carbon technology park through its fully integrated in-house approach spanning “development, design, construction, and operation.” On the 22,600-square-meter site, which includes 10,400 square meters of built space, the institute has successfully executed this pioneering eco-friendly initiative. Focusing on low-carbon construction and zero-carbon operation,

the project has applied 8 major technical systems with 33 specialized energy-saving designs and carbon reduction measures. It has incorporated 60 distinct low-carbon technologies, achieving “deep green standard + zero-energy consumption” in core buildings. Operational data shows an annual carbon emission of 250.09 tons, offset by 300.06 tons of CO₂ through renewable energy generation, thereby resulting in a net carbon offset of 49.97 tons. The park has achieved operational carbon neutrality by generating surplus renewable energy, establishing optimal conditions for green office environments.

Biodiversity Conservation

The Company actively responds to international initiatives, including the *UN Convention on Biological Diversity* and the *Kunming-Montreal Global Biodiversity Framework*, and supports declarations such as the *Glasgow Leaders’ Declaration on Forests and Land Use*. We adhere to national and local biodiversity-related laws, regulations, and guidelines across all operational jurisdictions, and strive to achieve net biodiversity gain in our production and business activities. During the reporting period, we progressed the development of our *Biodiversity and Zero-Deforestation Commitment*, defining systematic targets and roadmaps for biodiversity conservation and deforestation-free

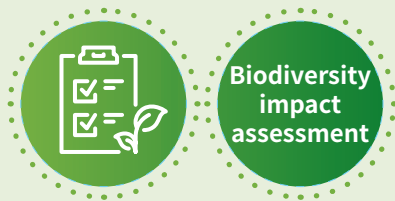
operations. We also encouraged subcontractors and partners to adopt this commitment, promoted the integration of biodiversity conservation principles into their practices, and facilitated concrete actions for protection and restoration.

We integrate biodiversity conservation and zero-deforestation principles into project design, investment, and construction, with particular emphasis on protecting species listed on the IUCN Red List of Threatened Species. We strive to avoid, minimize, and mitigate potential adverse impacts on biodiversity arising from our

activities, while progressively establishing a biodiversity management system. This system embeds the identification, analysis, and management of biodiversity risks into institutional processes. During the reporting period, no negative ecological impacts resulting from our investment, construction, or operational activities were identified.

During the reporting period, CSCEC Development participated in the investment and operation of a

public-private partnership (PPP) project targeting the remediation of polluted water bodies in urban areas of Jiangyin, Jiangsu Province. Based on the principle of adopting targeted treatment measures, the project implemented ecological restoration efforts across 23 rivers, utilizing methods such as aeration, ecological floating islands, and the planting of submerged and emergent vegetation. These measures have achieved long-term enhancements in aquatic ecosystem functionality and strengthened environmental resilience.



Prior to project commencement, we collect the EIA report to help assess the project's potential impact on local biodiversity. In the process, specific wastewater control measures are formulated accordingly.

We convene briefings on sewage control measures for project management and construction teams to clarify specific management measures.

We carry out regular inspections to ensure the effective implementation of sewage control measures.

We invite professionals to conduct regular biodiversity surveys in project perimeters. Based on the findings, we take appropriate measures to avoid adverse impact.

Case →

Implementing the "Nest Protection Initiative" to build an "Eco-friendly Road"

Constructed by CSCEC, the Isiolo-Kulamawe (IKM) Road Project in Kenya is located in an ecologically sensitive area. Along the route lies critical habitats for migratory birds, such as weaverbirds. To address the potential disruption of avian breeding grounds caused by traditional construction processes, CSCEC International innovatively introduced the "Nest Protection Initiative", a program integrated throughout the project's entire lifecycle. Our goal was to build a sustainable "green corridor" for safe migration of birds and other wildlife. During the project, we adjusted construction schedules to avoid the birds' breeding season. Artificial nests were installed as alternative nests, while segmented construction and a "restore-along-with-construction" approach ensured simultaneous progress in both engineering and vegetation recovery. This significantly reduced

↳ "Nest Protection Initiative" along the Isiolo-Kulamawe (IKM) Road Project, Kenya



exposed land area, minimizing disturbance to the local ecosystem. Moreover, these efforts contributed to ecological restoration and enhancement, earning high recognition from local governments and communities.



Fostering Inclusive Development Toward a Better Future



Witness ESG—Securing customer satisfaction, employee well-being, and social harmony through ESG initiatives

CSCEC

regards it as the greatest pursuit to safeguard and foster the shared interests of all people. Leveraging our expertise in Chinese approaches to construction, we tackle urgent, daunting, and critical tasks while delivering high-quality products and services that benefit the public. To this end, CSCEC has established a Branding Coordination Group and developed a "133" work system for cultural enhancements. We have implemented the *Creed of CSCEC* and the *Ten Codes of Conduct and Nine Aspects of Protocol* and released their overseas versions. In addition to the "Be a Courteous CSCEC Employee" campaign, the Company has developed a CSR culture, with a strong focus on safety, product quality, talent development, and community engagement, ensuring that the benefits of development are shared with stakeholders.

This chapter invites you to witness CSCEC's ESG journey to expand a happy living environment.



Safety and Health

Putting people and life first, CSCEC sticks to the bottom line: development must never come at the cost of human life. Committed to "starting from zero and striving for zero," CSCEC continues to strengthen the safety management system, deepen supervision and inspections, harness technology to enhance safety, and foster a safety culture. These efforts protect the health and lives of employees and suppliers, elevate overall safety levels, and reinforce the bottom line of safety and health, creating a safe and stable environment that supports the Company's high-quality, sustainable growth.

Safety Management System

CSCEC continues to enhance safety management systems in strict compliance with the Chinese laws such as the *Law on Work Safety* and the *Law on Prevention and Treatment of Infectious Diseases*, as well as the *Measures for the Supervision and Administration of Work Safety in Central SOEs* issued by SASAC.

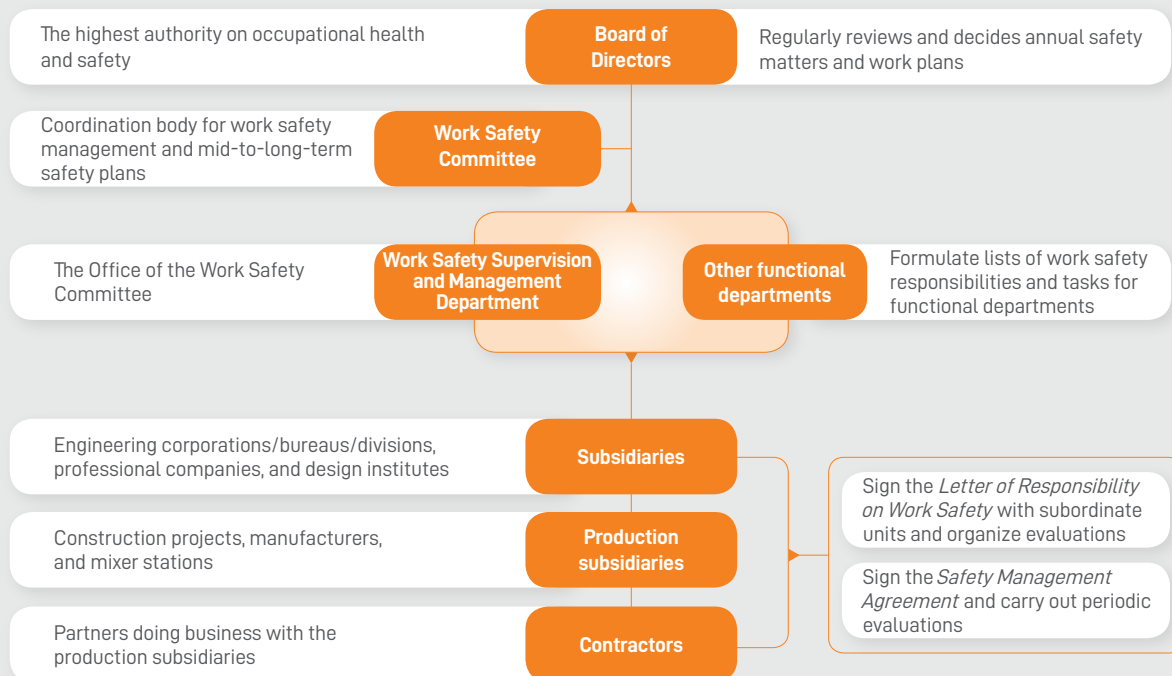
Safety management structure

The Board of Directors serves as the highest authority for occupational health and safety at CSCEC, responsible for reviewing and deciding annual safety matters and work plans. The Work Safety Committee functions as the Company's main coordination body for work safety management, holding regular meetings to discuss and deploy work safety priorities. The Committee's office is housed within the Work Safety

Supervision and Management Department, which hosts work safety meetings for key agenda implementation and organizes work safety evaluations to ensure that safety responsibilities are fully fulfilled across the Company. The President oversees work safety matters, supported by a full-time Safety Director to assist senior executives in managing occupational health and safety. Subsidiaries are required to establish their work safety management units, appoint dedicated safety personnel, and urge front-line operators and sub-suppliers to shoulder their responsibilities. In 2024, the Board of Directors and the General Manager's Working Conference made 19 arrangements for work safety research and deployment and 10 additional meetings, including quarterly briefings, virtual conferences, and regional workshops, to promote the execution of work safety priorities.



↳ Safety management system

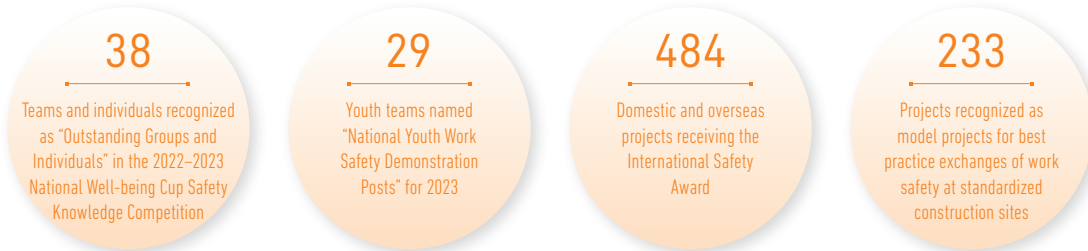


CSCEC has been awarded the Occupational Health and Safety Management System Certification by the Quality Assurance Center of CAQ. The Company's occupational health and safety management system meets the GB/T 45001-2020 / ISO 45001:2018 standards, covering construction engineering, municipal utilities, and infrastructure projects. The certification remains valid from December 19, 2022 to December 21, 2025. All second-tier subsidiaries engaged primarily in general contracting have also obtained the ISO 45001 occupational health and safety management system certification.

Safety management goals

CSCEC has formulated the *Three-Year Action Plan for Fundamental Work Safety Improvements (2024–2026)*, targeting zero accidents and zero fatalities. The plan focuses on 30 key tasks in 10 major areas and combines an evaluation mechanism of "dedicated oversight, quarterly reviews, and one-vote veto." Together, these measures form a multi-layered safety governance system characterized by penetrating accountability, technical support, and cultural enhancement. In 2024, the Company advanced the three-year action plan, along with SASAC's "Year of Risk Elimination" initiative. We also developed and implemented the *Special Action Plan for Fundamental Machinery Safety Management*. Through the "126" work measures, CSCEC eliminated safety hazards in real time, maintaining stable work safety.

Honors | In 2024



Safety management policies

CSCEC continues to strengthen safety management systems by formulating management documents such as the *Management Measures of CSCEC for Work Safety* and the *Management Measures of CSCEC for Occupational Health*. Based on the "7+2" work safety management elements⁰⁸, the Company has introduced several policies, including the *Sub-supplier Safety Management Measures*, *Overseas Work Safety Management Measures*, *Work Safety Management Evaluation Measures for Subsidiaries*, *Management Measures for Subsidiary Work Safety Assessments*, *Management Rules for Reporting Work Safety Accident Information*, *Management Rules for Rewarding the Internal Reporting of Work Safety Hazards*, and *Standardized Guidelines for Construction Site Work Safety Protection*. In addition, the Company plays a key role in drafting national and industry standards, such as the national standard *Specifications of the Provision of Personal Protective Equipment—Part Twelve: Building* and the revised *Work Safety Management Standards for Construction Enterprises* by the Ministry of Housing and Urban-Rural Development. CSCEC has also completed research in areas such as confined space operations, hot work, major hazard management, and emergency response.

Company-wide safety responsibilities

To consolidate safety responsibilities at all levels, CSCEC

signs the *Letter of Responsibility on Work Safety or Safety Management Agreement* with subsidiaries according to internal policies such as the *Subsidiary Work Safety Performance Evaluation Measures* and *Subsidiary Work Safety Management Assessment Measures*.

In 2024, the Company signed the *Letter of Responsibility on Work Safety* with 19 headquarters departments in the form of work checklists and with 42 subsidiaries under the principle of "one subsidiary, one policy" for the first time, clearly outlining work safety management objectives. Meanwhile, the Company enhanced process evaluations and regular assessments by integrating assessment results into the subsidiaries' annual business performance evaluations. Work safety performance of subsidiaries is assessed annually, and the outcomes determine incentives or penalties.

Safety management of sub-suppliers

CSCEC continues to enhance safety management for sub-suppliers through penetrating supervision. In 2024, the Company issued the *Sub-supplier Safety Management Measures*, which clarifies safety management requirements and tightens the safety evaluations and daily management of sub-suppliers. Unsafe behaviors are categorized into five types, including incident-related, regulatory violations, and media exposure, and are subject to dynamic punitive actions. These efforts have improved the safety performance of sub-suppliers.

Safety Supervision and Inspection

Internal safety inspections

Given the criteria for determining major construction accidents and hazards, CSCEC has developed 980 standards for identifying significant risks and 4,477 corporate standards for general risks. Subsidiaries use these standards to classify and control risks, with inspection and rectification efforts to create a sound

mechanism of risk self-inspection and self-correction. In 2024, the Company established three dedicated work safety inspection teams to conduct inspections nationwide and formed 13 teams to perform cross-inspections. Remote video checks were conducted for key overseas projects. During key periods and in critical

⁰⁸ The "7+2" work safety management elements include organizational system, institutional system, responsibility system, risk control system, education and training system, expert support system, supervision and guarantee system, emergency management system, and occupational health system.

regions, we intensified work safety on-site inspections and increased the inspection frequency of key projects. In 2024, more than 1,000 projects were checked, reinforcing safety and stability during important periods and in key regions and projects. Our subsidiaries also conducted safety checks annually, quarterly, monthly, and on a daily and ad-hoc basis to strengthen risk prevention and hazard mitigation, preventing serious safety incidents.

External safety inspections

CSCEC is subject to unannounced inspections by government agencies, including the State Council's Work

Safety Commission, the SASAC, and local authorities. The supervisor is stationed on-site to conduct targeted inspections and acceptance checks for hazardous construction operations. For difficult projects carried out in complex conditions, the Company organizes expert reviews and engages third-party specialists to verify work safety readiness, ensuring robust external oversight. In recent years, our subsidiary China Construction Yingda Insurance Brokerage Co., Ltd. has conducted 377 risk assessments as part of a group insurance program for work safety responsibility, delivering accurate risk reports that help enhance on-site safety management.

Tech-empowered Safety

CSCEC prioritizes tech-empowered safety and has developed and applied an intelligent safety platform and multiple work safety technologies. We leverage AI and image recognition technologies to automatically

detect and analyze unsafe behaviors and hazardous conditions at construction sites, with real-time alerts. These innovations enhance fundamental safety for a safe CSCEC.

Tools for safety

Tools	Details
Platforms Intelligent Safety Platform of CSCEC "Smart Construction Site System" – C-SMART	The Intelligent Safety Platform of CSCEC has added five new modules to the eight original functions—hazardous operations, grid-based safety management, safety education, safety inspection, and key projects of safety management. The platform's coverage has extended from 15 subsidiaries to 26, increasing the business substitution rate from 25% to 55%.
	Developed independently by China Overseas Land & Investment, the C-SMART system leverages IoT sensors to monitor equipment operations, environmental conditions (such as dust and noise), and worker behavior in real time. Integrated with AI algorithms for risk prediction, the system enhances intelligent safety management functions and has been promoted across overseas projects.
Systems Tower Crane Erection and Dismantling Monitoring System Smart Charging System	The General Contracting Company of China Construction Third Engineering Bureau Co., Ltd. piloted a safety monitoring system for tower crane erection and dismantling. The system enables intelligent analysis, identification, and early warning of potential hazards during tower crane ascending and descending operations. Leveraging IoT technologies, it supports remote, efficient supervision.
	China Overseas Property Holdings Limited has developed a proprietary "Haibo Smart Charging Socket", featuring safe charging, energy efficiency, and intelligent power control. With its multi-layer protection design and integrated smart charging cloud platform, the system effectively mitigates the fire risk associated with electric vehicle charging.
Equipment Mid-air builder Tower Crane for Training Smart Safety Helmet	China Construction Third Engineering Bureau Co., Ltd. has developed the fourth-generation lightweight top-formwork system, known as the "mid-air builder". Integrating mechanical operation and smart controls with existing concrete supply chains and concrete high-rise pumping technology, the system automates the cast-in-place construction of high-rise reinforced concrete structures. It offers significant advantages in speed, safety, mechanization, and labor efficiency.
	China Construction Machinery Co., Ltd. has developed a proprietary tower crane for training purposes. It enables trainees to rapidly understand the mechanism of tower cranes, offering realistic simulation scenarios for operators, tower crane drivers, and safety managers.
	China Construction First Group Co., Ltd. has developed the "Xingxuan Smart Helmet", the first in the industry to apply the next-generation wireless sensor network technology. The helmet realizes intelligent safety risk alerts and overcomes challenges of indoor communication and positioning.

Safety Culture

Committed to strengthening the Company's safety culture and work safety capabilities of all employees, CSCEC regularly conducts campaigns and training on work safety knowledge and skills, organizes themed

activities during the "Work Safety Month", and promotes the "Seven-Step Behavioral Safety". We also carry out pre-shift safety briefings to heighten employees' safety awareness and foster a strong culture of work safety.

Education on safety culture

Safety training

New hires are required to complete a three-month safety internship. The Company also strengthens ongoing education for certified safety engineers and has delivered training to over 70,000 participants on safety regulations, technical capabilities, and risk awareness. We also roll out programs such as safety engineer training camps and safety lecturer competitions.

Work Safety Month activities

During the Work Safety Month, the Company organizes fire drills, emergency evacuation simulations, and training on fire safety equipment. Public education campaigns are also held to promote fire and emergency rescue knowledge. During the Work Safety Month in 2024, CSCEC conducted over 21,000 emergency drills, engaged more than 62,000 participants in equipment knowledge competitions, and carried out over 30,000 safety education sessions.

Seven-Step Behavioral Safety

The Seven-Step Behavioral Safety targets the "last step" of risk that may lead to accidents by standardizing operational behavior and enhancing safety management practices. Promotional videos have been produced in six languages, including Chinese, English, Spanish, and French.

Pre-shift safety briefings

CSCEC oversees sub-suppliers' implementation of pre-shift safety briefings, which help instill a stronger sense of safety and responsibility among workers. These briefings clarify tasks and responsibilities, reduce the likelihood of accidents, and improve overall work efficiency and quality.

Occupational Health Protection

Following the Law of the *People's Republic of China on the Prevention and Control of Occupational Diseases*, we have formulated the *Management Measures for Occupational Health* and improved the occupational health and safety management system and supervision mechanism. The Company standardizes occupational health management, prevents occupational illnesses,

and protects employees' safety. We have realized health screenings for 100% of operators. Meanwhile, night school training for migrant workers, the publicity week of the Law on the Prevention and Control of Occupational Diseases, and the "Worker Village" program advance occupational health and safety for operators.

Quality Assurance

Guided by the strategic goal of "one creation and five aspects of strength", the strategic path of "1+6+6", CSCEC practices the core values of "Quality Assurance and Value Creation". The Company continues to enhance the quality management and service assurance system as we accelerate our efforts to become a world-class enterprise.

Quality Management

CSCEC continues to standardize the quality management system, take innovative measures for lean project quality management, and set realistic quality control

objectives. Through targeted initiatives such as quality management campaigns and training, the Company has raised the quality awareness of all employees and

elevated quality management levels to polish CSCEC as a quality brand.

Quality management system

Based on the ISO 9001 quality management system certification, we perfect our organizational, regulatory, and supervision frameworks for quality management. Quality risk management and quality control requirements are embedded into all business processes to ensure consistent product quality. By the end of the

reporting period, 296 subsidiaries had achieved third-party ISO 9001 quality management system certification. In 2024, the Company published the series of *Manual of Standardized Project Quality Management* to improve quality management and issued the *Lean Project Quality Management Guide* and *Emergency Response Procedures for Quality Incidents*, which supplements the quality management system. We also refined policies for quality checks and product recalls, with a 100% pass rate for all completed projects and zero major quality incidents.

CSCEC quality system framework



Key performance

In 2024: 9.1%

R&D-focused subsidiaries that received quality management certification

R&D-focused subsidiaries refer to enterprises whose main business is the R&D and innovation of new technologies (including the design and development of new products). They generally have R&D departments or institutions, and their R&D investments reach a considerable scale.



CSCEC Quality Management System Certification



Quality management objectives

CSCEC has set clear quality goals and planning requirements, including the "Five Zero" goals for 2024: zero design defects, zero rework during construction, zero handover defects, zero repeated customer complaints, and zero quality incidents. The Company also released the *2024 Quality Work Priorities*, outlining eight

quantitative KPIs and 28 key tasks in nine categories, all of which were completed on schedule.

All projects are required to establish quality objectives with detailed implementation plans, and annual targets are cascaded from mid- and long-term plans. In addition,

quality managers are required to sign target responsibility agreements, which include measurable KPIs and a performance-based reward and penalty mechanism.

Key performance 

Quality risk management

CSCEC has issued the *Emergency Response Measures for Quality Incidents*, redefining classification standards based on incident severity and impact. The document also clarifies responsibilities at all levels and daily requirements, significantly improving the Company's capacity to prevent and respond to quality emergencies.

From 2022 to 2024

Signing rate of post-specific quality responsibility agreements for projects under construction

100%

Full-process quality risk management

Special risk management actions

CSCEC has launched a targeted campaign to address hidden quality risks in ongoing projects, while subsidiaries at all levels have conducted self-inspections, random checks, and supervisory audits for 100% of projects under construction, with results submitted to differentiated regulatory units.

Quality differentiated supervision

According to procedures, we organize differentiated supervision work meetings, mid-term evaluations, and annual assessments, which are reflected in diagnostic reports of differentiated quality supervision.

Quality incident handling

Quality incidents are promptly investigated and documented. The Company completes quarterly supervision of how the 2024 "1+5" *Major Risk Prevention Plan is implemented*, and has finalized the quality risk section of the *2025 Major Operational Risk Forecast and Assessment Report*.

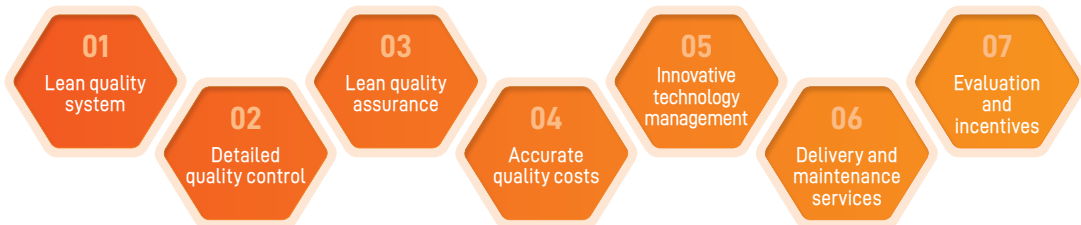
Lean project quality management

In 2024, CSCEC developed the *Lean Project Quality Management Guide*, which centers on lean quality management with a focus on "doing it right the first time". Through meticulous process management, we shift our management from production-driven to a dual emphasis on both product and service excellence. Guided by the "Five Zero" quality management goals, CSCEC has defined 11 categories of lean quality process standards and introduced 114 improvement measures to ensure

consistent excellence and stability in product quality.

In November 2024, CSCEC hosted the 8th Project Management Forum in Guangzhou on the theme of "Improving Foundation and Quality, Advancing Lean Construction". During the event, the Company issued documents, including *Guidelines for Managing Temporary Construction of Projects*, and 14 subsidiaries shared their experience on lean construction and other topics.

CSCEC lean quality management



Better quality management capabilities

To foster a quality culture, CSCEC has conducted targeted training programs on product quality and safety, improving the quality awareness of employees. In 2024, the Company organized four tiered and focused seminars on lean management, engaging around 200,000 participants in both online and offline learning sessions. These events boosted the quality awareness and capabilities at all management levels.

Key performance



Special campaigns on quality management and control

CSCEC has rolled out diverse quality management and control actions to strengthen quality management at every project stage.

Customer Service

CSCEC continues to enhance the customer service management system, aiming to improve service quality in all aspects. The Company focuses on the specific needs of customers and offers comprehensive services that span the entire project lifecycle.

The Company has issued *Rules on Promoting High-Quality Marketing*, which specifies a "customer-centered" philosophy in business operations. The documents call for subsidiaries to prioritize meeting customer needs and creating value for customers, while improving customer satisfaction through best-in-class service, engineering, and execution.

Full-lifecycle quality management and control actions

Expertise input

- Our designers come up with design quality management plans that systematically account for stakeholder needs. We also integrate procurement into the design phase, conduct constructability analyses, and guarantee the quality of design documents, procured equipment, and materials. Design representatives are required to visit construction sites to address construction quality issues.

Process control

- CSCEC has emphasized full-process quality control—preventive control before a project, management and control during a project, and inspection after a project—and promoted standardized manuals and illustrations to standardize project quality management procedures. We also implement a quality responsibility label system, ensuring 100% compliance with national standards for delivered projects.
- We refine the early-stage planning and process guidance mechanisms to drive first-time quality excellence through source and outcome control.

Quality excellence

- CSCEC conducts quarterly assessments for high-quality projects. Nearly 120,000 participants have taken part in a central SOE comprehensive quality management knowledge competition, with an average score of 94.2, a 195.5% increase in the number of participants, and an increase of 9.95 points over the previous year, earning the Company an Organizational Excellence Award.
- We have completed project submissions and evaluations with the China Association for Quality, China Construction Industry Association, China Association of Construction Enterprise Management, and China Civil Engineering Society, achieving 1,265 QC awards, 52 "Trusted Quality" team awards, 97 design honors, and 28 engineering quality standard awards. We have four recipients of the Mao Yisheng Science and Technology Award for Construction Engineers.

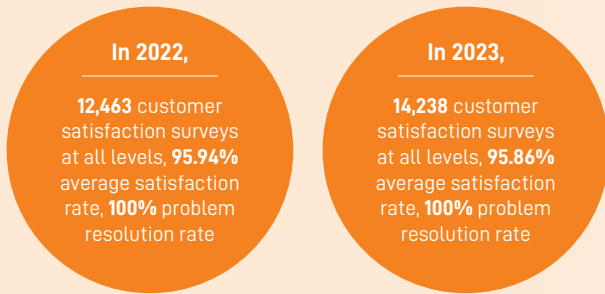
Customer satisfaction management

Prioritizing customer satisfaction, the Company conducts regular surveys. In 2024, the Company coordinated customer satisfaction surveys among 24 subsidiaries focused on design and construction. Covering owners of all ongoing projects, the surveys utilized questionnaires supplemented with in-person and phone interviews. The entire process—from questionnaire design, distribution, to data collection and report generation—was carried out through the Company's integrated marketing platform.

CSCEC has developed two sets of customer satisfaction survey templates tailored to design and construction.

Targeting contractual signatories, the Company invites clients from the corporate level, second-tier subsidiaries, and third-tier subsidiaries to evaluate their satisfaction across five phases: bidding, contract negotiation and signing, contract performance, settlement, and maintenance. They also provide

suggestions on our subsequent work. After in-depth analyses of survey results, the Company identifies key factors of satisfaction and takes practical improvement measures. A long-term mechanism for customer satisfaction surveys has been established to elevate customer service.



Key performance

In 2024

12,711 customer satisfaction questionnaires distributed, 11,174 valid questionnaires received

Overall satisfaction score → **96.9**

- 99.2% Clients rating their experience as satisfactory or above,
- 98.5 Overall satisfaction score for surveying and design services,
- 96.3 Overall satisfaction scores for construction services

Product and service complaint handling

CSCEC has established a dedicated complaint handling department and formulated the *Performance Complaint Management Measures*. The document is founded on the principles of problem orientation and accountability, factual and objective assessment, prioritized performance and service, and continuously improved management.

Key performance

In 2024

Resolution rate for all customer complaints

100%

▾ Performance complaint handling process

- For project performance complaints, CSCEC coordinates responses and supervises handling. In severe cases, dedicated task forces are formed, and on-site oversight is implemented when necessary.
- We have face-to-face conversations with subsidiaries to verify the reason and validity of complaints and promptly initiate the handling process.
- Invalid complaints are resolved through direct communication between the subsidiary and those who make a complaint for effective resolution of disputes, with written documentation submitted to the Company for closure.
- For valid complaints, the responsible subsidiary immediately visits the project site, engages with those who make a complaint, conducts investigations, and submits an initial report with proposed solutions to the Company for review and documentation.
- Third-tier subsidiaries then refine the complaint resolution plan based on the core concerns and initial solutions, detailing specific measures, accountability, and a timeline. The plan is implemented upon approval by second-tier subsidiaries.

Responsible marketing

CSCEC strictly complies with the *Advertising Law of the People's Republic of China* and other applicable regulations to build a responsible marketing system. The Company has issued the *Rules on Promoting High-Quality Marketing*, which upholds a "customer-centered" philosophy. It also clarifies ten strict prohibitions, ten forbidden behaviors, and the "Two Priorities and Two Emphases" strategy to elevate marketing quality at its source in line with high-quality development goals in the new era. The newly issued *Bidding Complaint Management Measures* calls for competition compliance among subsidiaries and upholds industry order. In

addition, the *Implementation Plan for the "Two Priorities and Two Emphases" Marketing Strategy* has been formulated, guiding subsidiaries to maintain strategic focus and commit to responsible, high-quality marketing.

In 2024, CSCEC held the first company-wide meeting on market training and marketing policies in recent years. The meeting covered new policies and systems, with systematic training on bottom-line management and fair competition. Industry experts were invited to interpret relevant regulations, further heightening employees' awareness of responsible marketing.

In 2024

Coverage of responsible marketing training for all marketing personnel

27,497 marketing staff members, 7.61% the proportion of marketing staff in the workforce



ISO 27001 information security management system certification



Information security and privacy protection

We continue to strengthen our data security and privacy protection framework for a comprehensive cybersecurity network. In 2024, the Company reinforced governance around data privacy by evaluating data security, personal data protection, and data export demand, and ensuring law-based data collection. Privacy protection policies were piloted on three digital platforms: the CSCEC Mobile Portal, Zhugongying Procurement Supply Chain Platform, and Smart Safety Platform. During the reporting period, CSCEC was granted the ISO 27001 information security management system certification, further cementing the Company's digital security infrastructure.

Information security and privacy protection

Organizational system	At the board and executive levels, CSCEC has clarified responsibilities for information security and cybersecurity governance. The Company has established a Digitalization and Cybersecurity Leadership Group of CSCEC, chaired by the Chairman, to oversee the implementation of national cybersecurity laws, regulations, and policies. This group studies and arranges plans for information security and privacy protection, monitors progress, and supervises execution.
Policy support	The Company has formulated and released policies, including the <i>Data Management Measures</i> , <i>Cybersecurity Management Regulations</i> , and <i>Detailed Rules for the Management of Personnel Cybersecurity</i> , further reinforcing the governance framework.
Information security audits	We have invited three independent assessment agencies to conduct security audits of our information security management system and information system. All critical information systems have reached level 3 cybersecurity.
Response management and emergency plans	The Company has developed and routinely executes cybersecurity emergency response drills, targeting frequent and risky scenarios such as ransomware attacks and data leaks. These drills are used to refine response protocols and improve the Company's emergency response procedures for cybersecurity incidents.
Cybersecurity training	Cybersecurity training requirements are embedded in job responsibilities. CSCEC mandates training for new hires, personnel in critical roles, and IT operations staff in our personnel cybersecurity management. In 2024, the Company conducted two cybersecurity training programs, including Cybersecurity Publicity Week sessions and cybersecurity training for IT managers at subsidiaries.
Performance evaluations	In 2024, cybersecurity and data security accounted for 40% of the digitalization performance evaluation for subsidiaries. The assessment was directly linked to annual performance evaluations of subsidiaries, reinforcing accountability for cybersecurity and data security across all business units.

<p>Key performance</p> <p>In 2024</p>	0	Major information security incidents and complaints related to customer privacy violations or data loss
	80%	Employee participation rate in data security and privacy protection training

Innovation-driven Development

Adhering to the guiding principle of "Technology Drives Development, Innovation Shapes the Future", we follow national policies and practice the new development philosophy. We advance follow-on, integrated, and original innovation while leveraging both managerial and technological innovation to foster core competitiveness.

Research Institute focuses on foundational, strategic, and cutting-edge research. Second-tier research institutes develop comprehensive technologies tailored to business segments and regional needs. Third-tier units and projects explore critical technologies for on-site application.

In 2024, CSCEC revised key policies governing R&D projects, innovation outcomes, and subsidiary technology evaluations, further improving our technology management system. Guided by the Company's 14th Five-Year Plan for Science and Technology and systems such as *R&D Project Management Measures*, CSCEC invested RMB 45.459 billion in R&D during the reporting period.

CSCEC has established an innovation platform, which integrates research capabilities and shares resources for R&D on core technologies in all aspects, shaping a new paradigm in sci-tech innovation. By the end of 2024, the Company had launched three state-level innovation platforms, including the National Center of Technology Innovation for Digital Construction, the National Green Building Key Laboratory, and the National Engineering Research Center for Soil Nutrient Management and Pollution Remediation. We also operated five state-level corporate technology centers (including sub-centers),

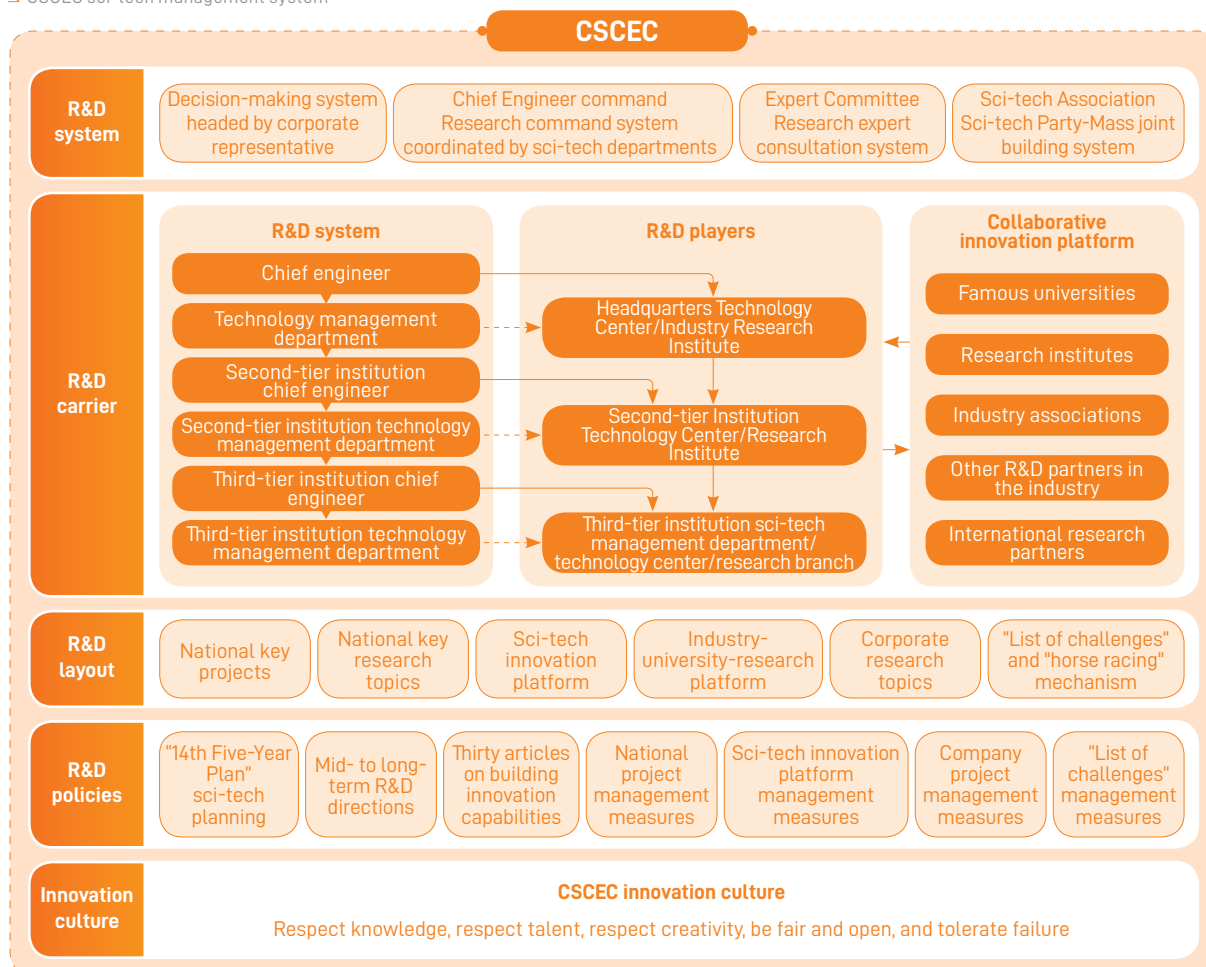
R&D system
CSCEC operates a collaborative three-level R&D system, which is structured reasonably. The CSCEC Industrial

nine academician research centers, 75 provincial/ministerial-level enterprise technology centers, 72 provincial/ministerial-level innovation platforms, 19 postdoctoral research centers, and managed 228 high-tech enterprises.

At the same time, CSCEC has strengthened responsibilities for confidentiality management,

standardized confidentiality, and enforced the requirements of the *Headquarters Trade Secrets Catalog*. In 2024, we classified the confidentiality of nearly 40 trade secret documents. The Company has tightened the review of information provided to external parties, established a corresponding mechanism with specific confidentiality responsibilities, and strictly executed the approval process.

CSCEC sci-tech management system



AI-powered digital transformation

CSCEC leverages AI technologies to drive digital transformation and build a multi-dimensional empowerment system. The Company simultaneously advances both specialized and general application scenarios and enhances management efficiency through initiatives like intelligent office systems and smart supply chains. CSCEC puts in place a mechanism for tracking

cutting-edge technologies and regularly analyzes developments in generative AI and large models. These insights facilitate the establishment of data sets and a data asset system. Additionally, the Company enhances AI competency through specialized training programs and industry AI forums, positioning ourselves as a benchmark for digital transformation in the construction sector.

AI-empowered digital transformation

Specialized and general application scenarios

CSCEC focuses on areas such as project scheduling, procurement supply chains, contract risk, cost engines, professional knowledge Q&A, and office scenarios. The Company has launched functions including smart procurement experts, smart meetings, smart documents, and smart customer service.

Technology tracking and analysis

CSCEC regularly evaluates the latest AI models and assesses their general and specialized capabilities based on construction industry knowledge and scenarios, with evaluation reports produced. The Company has published 842 articles on topics such as technology sharing and frontier research in the digital innovation community, CSCEC Mobile Portal.

Data set development

CSCEC has completed the first high-quality data set among central state-owned construction enterprises—the High-Quality Data Set for the Construction Industry Supply Chain (rated at Level 4 quality).

Enhancement of AI application capabilities

In 2024, CSCEC conducted two specialized AI training sessions and initiated the first Application Scenario Innovation Competition. The Company also hosted the “AI-empowered Construction, Industry Renewal” AI forum for the construction industry, fostering an industry ecosystem.



CSCEC serves as the leader for the Architectural Application Working Group of the Artificial Intelligence Committee under the Ministry of Industry and Information Technology's National Information Technology Standardization Technical Committee, undertaking the formation of industry standards.



On November 29, 2024, the Company hosted the “AI-empowered Construction, Industry Renewal” AI forum for the construction industry, fostering an industry ecosystem.

Technology commercialization

CSCEC has intensified efforts in the commercialization and market applications of technologies. The Company has revised the *Management Measures of CSCEC for Scientific and Technological Achievements*, incorporating provisions related to “innovative products”. These provisions outline the basic principles, evaluation and recognition procedures, and management of innovative

products, effectively converting sci-tech achievements into productivity. CSCEC has built a robust mechanism for patent and copyright protection, leveraged the Company’s advanced technologies and resources to build collaborative platforms, and driven sustainability through IPR protection. Additionally, the Company consolidates responsibilities and functions of confidentiality management to standardize classification.

Key performance 

In 2024 **1** First Prize of the National Technological Invention Award | **1** Second Prize of the National Science and Technology Progress Award | **3** National Engineer Awards | **15** Projects, including Chengdu Tianfu International Airport, received the Zhan Tianyou Award

10 Projects undertaken by CSCEC under China's 14th Five-Year National Key R&D Program, including the "Research and Application of Key Technologies for Modular Integrated Building Construction" | **22** Projects under the National Key R&D Program | **4** subsidiaries recognized in the sixth list of "little giants" among specialized, high-end, and innovation-driven SMEs, **2** subsidiaries recognized as national manufacturing single-item champions

By the end of 2024,

102 National and industry standards that we drafted | **68,577** Valid patents, including **10,362** invention patents, with a leading position in the industry in both quantity and quality of patents |

Indicators	2024
Invention patents applied to the main business	10,362
Patent applications	13,381
Authorized patents	13,984
Valid patents	68,577
Valid Patents per million RMB of revenue	0.03144
Trademark applications	265
Trademark registrations	178
Cumulative trademark registrations	1,357
Software copyrights	2,929
Software copyrights per million RMB of revenue	0.0013

Case 

Jointly developing the world's first AIDC international standard for industrial construction

In October 2024, thanks to the leadership of China and input from multiple nations, the world's first international standard for AIDC (automatic identification and data capture) in industrial construction, *ISO/IEC 8506 Information Technology—Automatic Identification and Data Capture Technology—AIDC Application in Industrial Construction*, was released on the website of the International Organization for Standardization. The standard fills the gap in the global AIDC application framework for industrial construction.

The formulation of the *ISO/IEC 8506* was jointly led by China Construction Science & Technology and the Article Numbering Center of China, covering standards and requirements for automatic identification and data capture technologies, including labeling, data, information services, and application guidelines, throughout the full lifecycle of industrial construction. As the "foundational standard" for AIDC in industrial construction, *ISO/IEC 8506* lays a solid groundwork for future international standards in the area.

Sustainable Supply Chain

CSCEC aggregates the core capabilities of stakeholders across its value chain, empowering upstream and downstream partners in the industry to practice sustainability concepts. Together, we jointly explore the establishment of a responsible supply chain system, and advance the sustainable supply chain ecosystem toward a new stage of development.

CSCEC places great importance on its subcontractor partners (hereinafter referred to as "suppliers") and has established a supply chain management organizational system led by the Company's centralized procurement leadership team (chaired by the Company's president), with coordination from the Company headquarters' project performance management department and collaborative management by procurement, engineering, and finance departments at various subsidiaries. In 2024, the Company formulated the overall supply chain planning document, *Supply Chain Development Guidelines*, based on which we further refined the "1+6+N" supply chain management system series.

In August 2024, CSCEC held its first Supply Chain Management & Partnership Conference. The event gathered approximately 19,000 attendees, including representatives from subsidiaries, outstanding suppliers, and frontline workforce delegates. Under the theme "Consolidating Foundations and Supply Chain to Create Mutual Success," the conference examined emerging trends and challenges in the construction industry while mapping out critical supply chain development priorities. The Company unveiled eight cooperative development initiatives for its supply chain ecosystem during the conference.

▾ The "1+6+N" supply chain management system



▾ CSCEC's eight initiatives for supply chain collaborative development



ESG Management of Suppliers

In 2024, the Company revised and issued management regulations, including the *Subcontractor and Sub-Supplier Resource Management Measures* and *Subcontractor and Sub-Supplier Safety Management Measures*, establishing a comprehensive supplier management system and review process. Starting with supplier screening and qualification reviews, we implemented detailed categorization and comprehensive evaluations. For underperforming suppliers, we enforced penalties or terminated collaborations, while for core and high-quality suppliers, we introduced incentive policies to strengthen partnerships

with enterprises demonstrating strong contract fulfillment, timely service, and ethical business practices.

Investigation and qualification

We require suppliers to hold certifications in quality, safety, and other key areas, and prioritize those with strong reputations, well-managed operations, and green certifications. During the qualification phase, we assess critical criteria such as technical capabilities, employee welfare standards, and environmental management practices.

↘ Number of suppliers

Region	2022	2023	2024
Northeast China	4,243	4,001	4,007
North China	18,335	16,147	16,372
East China	42,135	40,452	42,187
Central China	19,793	17,243	17,729
South China	14,806	13,808	14,747
Southwestern China	13,386	12,952	13,603
Northwestern China	8,740	8,222	8,757
Total	121,438	112,825	117,402

Classification and assessment

Based on their qualifications and expertise, we classify suppliers into five major categories, including material supply, equipment supply, specialized subcontracting, labor subcontracting (construction labor), and professional services. A comprehensive and continuous evaluation system with defined assessment criteria is in place to conduct holistic supplier evaluations,

followed by tiered classification based on performance. In accordance with the *Subcontractor and Sub-Supplier Resource Management Measures*, we implement both comprehensive and dynamic evaluation mechanisms. Annually, subsidiaries at all levels identify their top-performing suppliers, and designate them as key suppliers.

Key performance 

Tier-1
suppliers

117,402

Key tier-1 suppliers of CSCEC's
secondary subsidiaries

8,348

Supplier assessment methods

Online review and evaluation

We adopt a real-time evaluation system characterized by "order-by-order review," and conduct supplier evaluations upon completion of each delivery and settlement.

We conduct at least one annual comprehensive supplier evaluation, and perform thorough and detailed assessments of all active suppliers' ESG performance.

Offline tracking and management

Before

Before procurement, we conduct field inspection and agree on the handling plan and penalty mechanism for quality issues in the procurement contract.



During

The construction subsidiary, the supervisor, and the constructor together accept the goods on site. Any unqualified materials, once identified, shall be immediately withdrawn from the site and be timely recorded.



After

In the dynamic and regular assessments of suppliers, we focus on the assessment of compliance, and strengthen the application of evaluation findings.

Penalty and removal

We have established a supplier penalty and removal mechanism, which outlines corrective actions for non-compliant behavior to mitigate ESG risks across the supply chain. For underperforming suppliers, we implement disciplinary measures including a one-year transaction ban, two-year disqualification from regional joint procurement, and initiation of removal procedures.

Communication and empowerment

We require subsidiaries to regularly organize supplier engagement activities, including conferences, open days, award ceremonies, and supply-demand matchmaking sessions. In 2024, we released the *Supply Chain*

Management Research and Supplier Symposium Initiative, mandating symposiums at both the headquarters and subsidiaries at all levels. Over 7,000 suppliers participated in these sessions, including 115 at the headquarters-level symposiums.

In addition, we have established a closed-loop management system for supplier complaints to promptly address issues related to contracts, settlements, safety, environmental protection, payments, and other matters, thereby safeguarding the rights and interests of all parties. Simultaneously, we provide training programs for suppliers to enhance their capabilities.

In 2024, Product quality and safety training programs for suppliers

Total participants	Total training hours	Total training sessions
1,169,775	194,962.5 hours	389,925

Key performance 

Case

Create an on-line supplier service platform

In August 2024, CSCEC officially launched the Zhugongying supplier service platform. Deeply integrated with the supply chain platform on yzw.cn, the platform enables seamless, end-to-end project lifecycle management - from bidding and contracting through mobilization, execution, settlement, to final demobilization - while ensuring fully integrated construction operations. By eliminating information silos and streamlining communication, the Company significantly enhances project delivery performance, and creates an efficient,

Launch of the Zhugongying supplier service platform



collaborative and open partnership ecosystem that drives mutual success.

ESG Collaboration Philosophy in the Supply Chain

Guided by the principles of centralized, specialized, and ecosystem-based management, CSCEC has built an integrated supplier collaboration system. The system centers on centralized procurement across all subsidiary levels while incorporating diverse procurement models. Regional joint procurement represents the highest level of centralized procurement. In 2024, we maintained partnerships with over 2,600 framework agreement suppliers, securing stable and continuous supply chain cooperation.

We uphold equal treatment for SMEs through diversified procurement support, dedicated feedback channels, and technical and managerial training programs, aiming to foster collaborative resilience in our supply chain. Concurrently, we operate four global procurement centers (Europe, Middle East, North Africa, and Asia-Pacific) to strengthen strategic partnerships with overseas suppliers and enable qualified suppliers' global expansion.

Implementing ESG collaboration philosophy in the supply chain



In 2024, the Company facilitated 308 joint procurement events by 11 regional joint procurement centers, with the total procurement volume reaching RMB 232.7 billion. This initiative received strong recognition from suppliers. Through improved centralized procurement management, we achieved a 29.3% centralized procurement rate and a 10% increase in average supplier transaction volume.



The Company actively encouraged suppliers to transition toward high-end resources, thereby continuously enhancing the expertise of the supplier pool. In 2024, the number of specialized, sophisticated, and innovation-driven ("little giant") suppliers, including single-category champions, rose by 2,082, with collaborative procurement volume increasing 14-fold.



Subsidiaries of the Company partnered with suppliers through strategic procurement, centralized procurement, and other initiatives to cultivate a stable core supplier network. Despite evolving industry challenges, over 50% of suppliers have maintained partnerships with us for three consecutive years.

Sustainable Supply Chain Initiatives

CSCEC is committed to developing a sustainable supply chain guided by ESG principles, and maintaining high standards across all dimensions, including quality, environmental protection, compliance, health, and safety. We foster fair, equitable, and productive long-term partnerships with all collaborators.

Improving the sustainable supply chain governance framework

We have developed the *ESG Work Plan*, which identifies supplier qualification management and supply chain ESG management policies as core metrics. In 2024, we significantly enhanced our supply chain governance system through the development and implementation of the "1 Guideline + 3 Management Measures" regulatory package.

Building a sustainable supply chain

The Company integrates ESG principles into all phases of supply chain management, with dedicated efforts to build a sustainable supply chain.

The "1 Guideline + 3 Management Measures" for sustainable supply chain management

- The *Guidelines for Supply Chain Development* aims to advance supplier ESG management by integrating key ESG indicators throughout the entire supply chain management process.
- The *Subcontractor and Sub-Supplier Resource Management Measures* focuses on supplier ESG management, and requires for rigorous identification and control mechanisms across all supplier management stages, including quality, environmental protection, labor rights, and ethical business practices.
- The *Subcontractor and Sub-Supplier Settlement Management Measures* requires all subsidiaries to complete settlements with suppliers according to contractual terms, while streamlining management processes to fully protect the rights and interests of both parties.
- The *Subcontractor and Sub-Supplier Internal Complaint Management Measures* stipulates that all subsidiaries treat suppliers fairly and impartially, actively resolve their difficulties, and respond to their complaints in a timely and efficient manner.

Key performance

6,955 / 26%

ESG management initiatives for the supply chain

In 2024, **6,955** qualified green suppliers joined the green building materials marketplace on yzw.cn, with total procurement volume reaching RMB **248.7** billion, a **21%** year-on-year increase. Over **1,000** green procurement evaluations were completed.

The regional joint procurement initiative provided evaluation-based incentives for all green suppliers, resulting in more than **500** green-certified suppliers (over **26%** of awarded contracts).

Environmental

- In procurement bidding, we have introduced additional indicators for "dual carbon" based on application scenarios and bidding types.
- We collect evidence and conduct on-site inspections to verify partner suppliers' green carbon certification status, progress in green factory construction, and their management of resource and energy conservation.
- Through supply-demand meetings and business collaboration, we have launched the "green, environmental protection, and low carbon" initiative for our partners. This initiative aims to strengthen our collaboration with environmentally friendly enterprises and promote the application of green products.

Social

- By developing the *Management Measures for Centralized Procurement of Labor and Professional Contracting* and the *Labor Management Manual*, we integrate factors such as workforce management and occupational health and safety into the supplier selection and evaluation system. At the same time, we require labor suppliers to develop a wage payment management system for migrant workers. Subsidiaries at all levels establish dedicated migrant worker accounts in compliance with national regulations and consistently enforce the general contractor's obligation to disburse migrant worker wages.
- We establish tiered procurement standards, provide a technology-sharing platform, and implement flexible payment cycle management to ensure fair treatment of SMEs and prevent resource monopolies. This guarantees equal development opportunities for these businesses within the supply chain system.

Governance

- The "Project Integrity Contract" is a necessary annex to our contracts to ensure that both parties perform the project contract in an efficient and clean manner.
- Suppliers found guilty of counterfeiting, bribery, bid collusion, or identified by national or local professional organizations for law violations, as well as those producing substandard products, are placed on the list of misbehaving suppliers and face removal.
- We have strengthened our efforts to establish a compliance and anti-corruption system, and created a risk monitoring and prevention center on yzw.cn through initiatives such as contract transparency and digital whistleblowing mechanisms. By embedding business ethics standards into the entire procurement, construction, and delivery process, we have built a traceable, integrity-driven supply chain ecosystem.

Labor rights protection

CSCEC protects workers' legal rights and actively establishes worker training centers. We promote stable employment and implement diverse worker welfare programs to contribute to social harmony and stability.

Domestic workforce management

The Company has issued the *Labor Management Manual* and the *Migrant Worker Wage Payment Supervision Measures for Subcontractors* to effectively safeguard workers' legitimate rights and interests. At the same time, we have continued to improve worker training, deployment, evaluation, and incentive systems, and established an end-to-end service system for industrial workers. Through digital platforms, we have enhanced core support in three key areas: human resources, ecosystem development, and skills training, while actively cultivating technical experts and a new generation of construction craftsmen.

Our efforts facilitate the transformation of traditional construction workers into skilled professionals for the modern construction industry, thereby advancing supply-side structural reform in the construction sector.

Overseas workforce management

We strongly emphasize workforce management for international projects, and have actively built a comprehensive, multi-tiered system to safeguard worker rights and enhance capabilities. In 2024, aligning with national policies and overseas operational needs, we implemented pre-departure training and assessments for workers assigned abroad. Throughout the year, we conducted over 50 training sessions with more than 4,000 participants. These initiatives have substantially improved workers' professional competencies and legal awareness, while significantly strengthening their safety preparedness and emergency response capabilities.

Employee Rights and Development

Recognizing human capital as a core competitive advantage, we always follow the basic human resource management principal of "career, emotion and treatment" and "individual concern." We fully leverage the leadership role of our Talent Leadership Group to conduct policy research, strategic planning, and macro-level guidance for talent development and workforce building, while overseeing implementation.

We have fully executed specialized talent development plans during the 14th Five-Year Plan period, and advanced the "Seven Key Talent Projects"⁰⁹ through a multi-dimensional approach to enhance overall organizational effectiveness. These efforts create a robust workforce structure with strong executive leadership, solid mid-level support, and a deep foundation of skilled professionals.

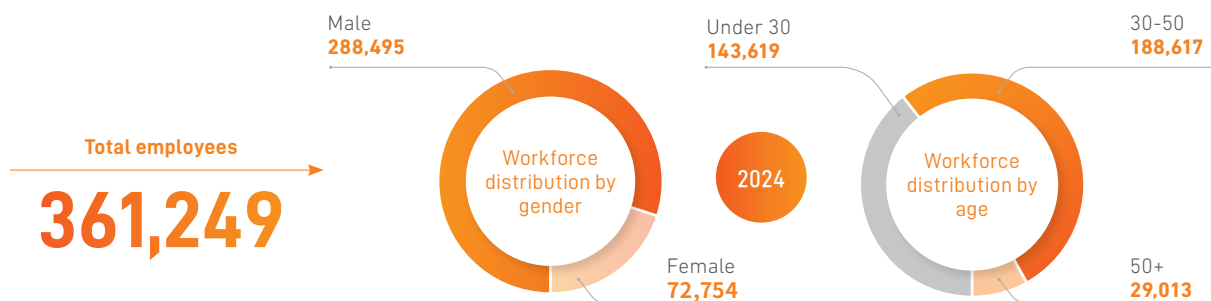
Employee Management

Adhering to the principles of equality and inclusion in employment, the Company strictly complies with relevant legislation including China's *Labor Law* and *Labor Contract Law*, and has established the *Guidelines for Open Recruitment*. We conduct fair and transparent hiring through diverse channels and execute formal labor contracts. In compliance with local wage regulatory requirements, we ensure timely salary payments, full contributions to social insurance, and protection of employees' entitlements including statutory leave and rest periods. Throughout recruitment and employment processes, we ensure equal treatment regardless of region, gender or age while conducting

legally compliant background checks. We maintain zero tolerance for child or forced labor. During the reporting period, there were no instances of discrimination, child labor, or forced labor.

As a central SOE, we steadfastly fulfill our corporate social responsibility by operating online platforms for campus and public recruitment, offering 24/7 hiring services to candidates worldwide. We take the lead in organizing job fairs at key universities, while our subsidiaries host recruitment events at global institutions to attract candidates across diverse regions, ethnicities, and cultural backgrounds.

Employee composition



⁰⁹ The Seven Key Talent Projects include leadership personnel, scientific and technological talents, top-tier talents, young talents, international talents, new business talents, and talent management teams.

Employee Rights

CSCEC highly prioritizes employee well-being through enhanced remuneration policies and transparent democratic communication. We proactively address staff concerns while cultivating an inclusive, harmonious workplace to boost employee satisfaction.

Compensation and benefits

We continually optimize salary structures and benefits systems. Our mid-to-long-term incentive mechanism fosters collaborative labor relations, uniting employees and the Company in a shared community of interests, career growth, and long-term success.

↳ Compensation and benefits system

Compensation and benefits system	Content
Compensation structure	We have established a fair, comprehensive compensation system grounded in the principle of "distribution according to work," with scientifically calibrated salary levels for all employee categories. Our compensation structure comprises base salary, performance-based pay, allowances and subsidies, and mid-to-long-term incentives. Through company-wide performance management, we prioritize compensation for top performers, key innovation talent and other critical roles, frontline positions, and highly-skilled specialists.
Benefits program	While actively advancing our corporate annuity policy, we encourage subsidiaries to develop tailored healthcare policies and optimize employee benefit systems based on their operational realities. Particular attention is given to supporting new graduate hires, employees facing hardships, and retired staff.
Mid-to-long-term incentive mechanism	Through diversified mid-to-long-term incentives, including equity incentives for listed companies and profit-sharing schemes for tech-focused enterprises, we have established a comprehensive "co-building, co-creation, shared rewards, and shared responsibility" incentive mechanism. This system sustains motivation among core talent, driving proactive engagement, ownership, and innovation. To date, these programs have rewarded over 8,000 employees.

Democratic communication

CSCEC safeguards employees' democratic rights through institutionalized participation mechanisms. The Company has issued the *Guidelines on Enhancing Workers' Congress Operations* to standardize these practices across all subsidiaries, achieving 100% coverage of collective bargaining agreements and labor contracts. Notably, nine subsidiaries have earned recognition as National Model Units in Democratic Management. Our workers' congress system actively solicits employee proposals and conducts regular inspections by

worker representatives. Over the past two years, three congress sessions have collected 108 staff proposals across four categories, with 17 formally adopted for implementation. We empower worker directors and supervisors to participate in reviewing major corporate decisions, particularly those affecting employee welfare, ensuring they effectively fulfill their dual roles of representing workforce interests while contributing to corporate governance. Moreover, we maintain multiple channels for employees to appeal grievances, thereby ensuring prompt resolution of rights violations or unfair treatment cases.

↳ CSCEC 2025 Work Conference & Third Session of the Third Workers' Congress



Employee care

We have built a caring, employee-centered service system. By organizing cultural and sports activities such as the 2024 Employee Sports Games, we help staff maintain a healthy work-life balance. Dedicated support mechanisms have

been established for specific groups, including female employees, frontline workers, retirees, and employees with disabilities. These initiatives have effectively boosted employees' sense of happiness and belonging.

Employee care initiatives

Employee care initiatives	Content
Female employees	We have developed a dedicated training and education system for female employees, and integrated their development into the Company's overall training strategy while expanding training opportunities for them. To support their career growth, we have optimized advancement paths for women and actively work to increase female representation in the Company's talent pool. We provide tailored initiatives such as International Women's Day (March 8th) celebrations, breast and cervical cancer screenings, and comprehensive support in legal, educational, health, and wellness matters.
Young employees	To address the key challenges and development barriers faced by young employees, we have conducted a comprehensive youth development survey and compiled a detailed research report. Leveraging these insights, we have mobilized resources to create a youth-friendly workplace through targeted initiatives. We have organized 3,475 support activities for young employees and established dedicated service centers, including "Youth Home" and "Mind Haven." In addition, through singles' networking events, talent housing programs, summer childcare services, and a youth sports and arts association, we have addressed 5,397 practical challenges for young employees.
Frontline workers	For frontline employees stationed in remote and challenging locations such as overseas postings and high-altitude regions, we provide key support measures including allowances, paid leave, and regular health checkups.
Retirees	We offer pre-retirement policy briefings and benefits guidance to enhance retiring employees' satisfaction and sense of belonging.
Employees with disabilities	We actively implement supportive employment policies and prioritize hiring people with disabilities when qualifications are equal.

Employee Growth

CSCEC pays respect to labor, knowledge, talent, and creativity. To further promote the strategy of developing a quality workforce, the Company enhances the cultivation of various types of talents and develops innovative talent training models. We accelerate the building of a high-quality talent succession and stimulate talent vitality, striving to establish a talent team whose scale, quality, and structure is in line with our development. We also work to create a sound environment where everyone can develop and give full play to their talents.

Employee training

CSCEC values the personalized growth and long-term development of employees. We encourage employees to accept training, obtain qualification certificates, and receive further education. High-quality training programs are developed with focuses on leadership, professionalism, and position competence. Achievement has been made in leadership shaping, professional talent training, and new employee orientation.

Key performance

In 2024

Expenditure on employee education and training

RMB **1.02** billion

Total training participants

2.21 million

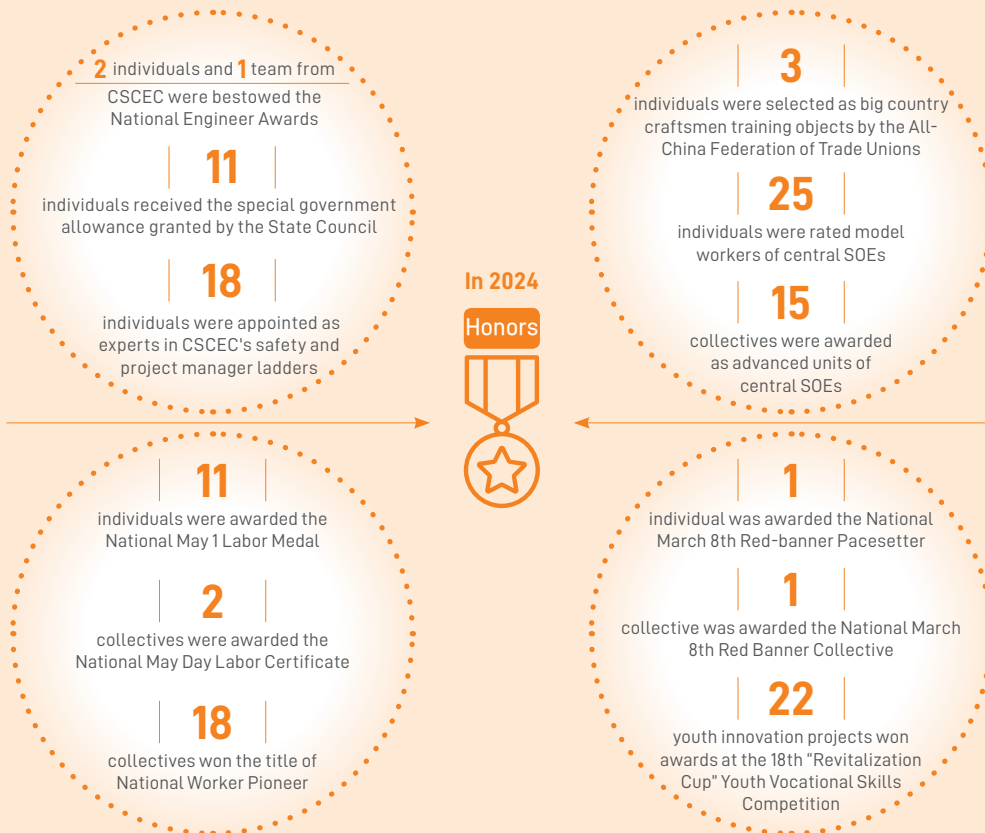
Some training programs in 2024

Training area	Training content
Leadership	We launched the Young Entrepreneurs Training Program to broaden the horizons of participants, enhance their theoretical knowledge, and improve their professional abilities, selecting and cultivating entrepreneurs to whom we can entrust CSCEC's future. We also held two high-standard and high-quality leadership training sessions in spring and fall respectively, enriching the CSCEC-featured curriculum system for duty performance.
Professionalism	We organized two demonstration training sessions for project managers to enhance their capabilities and qualities, which focused on experience sharing from internal experts on project fulfillment, compliant operations, team collaboration, and joint value creation. We also conducted online safety training. By fully leveraging internal teaching resources, we made the training highly practical and time-efficient, striving to build a "2+3" further education course system for certified safety engineers.
Position competence	We carried out annual orientation training for new employees, helping them understand our latest trends, clarify their career paths, and accelerate the transition of their roles by analyzing our strategy, business transformation, overseas market layout, and new technological trends. We also held CSCEC Knowledge lectures for all employees in both "face-to-face" and "online" forms, inviting industry experts and renowned scholars to give special lectures to broaden employees' knowledge and stimulate their innovative thinking.

Talent succession planning

Firmly holding the view that talent is the primary resource, we comprehensively promote the cultivation of leadership talent, tech talent, advanced talent, young

talent, international talent, new business talent, and the talent management team, so as to consolidate our talent base.



Progress on the "Seven Key Talent Projects"

Seven Key Talent Projects	Progress in 2024
Leaders	We strengthen assessment and conduct tenure- and contract-based management. The <i>Deputy Manager Performance Indicators</i> has been formulated based on core functions and main businesses, guiding leaders to stay focused on their business for better results.
Tech Talent	We establish a hierarchical tech talent pool and develop tailored training plans for key scientific research talents. We build a talent team of excellent engineers, jointly recruit full-time engineering masters and doctors with key universities, and recommend our technical backbones to pursue part-time engineering doctorates.
Advanced Talent	We integrate the functions of the leadership groups and working groups for nurturing academicians and national masters and the Education and Training Guidance Committee into the Talent Leadership Group, strengthening the overall control of advanced talent training.
Young Talent	We have issued the guidance on the growth of young employees, clarifying 10 key tasks and 25 key measures. We conducted a series of CSCEC Youth competitions. The first Young Business Talent Competition attracted 37,000 young talents, selecting outstanding young talents through competition instead of training.
International Talent	We hold overseas human resources seminars, ensure salaries and benefits of overseas talents, and conduct special research on the building of overseas business talent teams. We strengthen services for overseas personnel and prefer those with overseas work experience in professional title evaluation. An internal talent mobility platform is in place and operation manuals are issued to regularly appoint returned employees to new positions.
New Business Talent	To select outstanding innovative young talents, youth entrepreneurship and innovation competitions are organized, mainly in fields like dual carbon, digitization and new materials, etc. Subsidiaries in need are encouraged to expand the introduction of mature new business talents and select outstanding graduates in relevant majors from universities. New business technology and management training is conducted and relevant courses are set in young designer training, eco-environmental management training and other training programs.
Talent Management Team	To strengthen the capacity building of talent teams, we conducted two special training sessions for training managers of our second and third-tier subsidiaries. We help business departments know clearly the training needs of our system, clarify training priorities, and conduct targeted talent training. We digitize our human resource management to cover campus recruitment and the professional title management system. A digital and intelligent leadership system has also been established.

Career advancement

CSCEC attaches great importance to employee development and sets up both professional and management ladders. Vertically, we unblock the career growth paths for various talents and horizontally, we establish flexible mechanisms for them to display their talent and compete with each other. In light of the growth patterns of talents in each professional ladder, we regularly conduct expert reviews for including CSCEC masters, technological R&D, project managers, business, and safety, etc, selecting models for CSCEC and the industry.

In the principle of serving development and ensuring scientific evaluation, CSCEC organizes professional title evaluations on engineering, economy, accounting, and so on. We have established professional title evaluation committees for various series and levels. Instead of preferring diplomas, seniority and academic papers over actual contributions, we take the granting of professional titles as an important means to improve the quality

of professional and technical talents. We ensure the seriousness and fairness of professional title evaluation by determining reasonable application conditions, setting scientific evaluation processes, conducting peer reviews, and unblocking green channels etc.

CSCEC advances the building of skilled talent teams and the accreditation of occupational skill levels in an orderly manner. We also lead the formulation of two national vocational skill standards for electrical equipment installers and parking administrators, which are the first ones ever in the industry. We have established and improved the accreditation system for vocational skill levels. Our own vocational school organizes skill competitions and vocational skill training. Excellent employees are selected to participate in national and provincial-level skill competitions. We provide a good environment and platform for the cultivation and growth of skilled talents.

Community Communication and Participation

At CSCEC, we are driven by our commitment to bring positive impacts on the community. We have established and maintained open, transparent, and long-lasting communication channels. In the fields of community service, ecology improvement, emergency response and disaster relief, and overseas services, we uphold high standards in social responsibility fulfillment, contributing to community prosperity and sustainable development.

Rural Revitalization

Fully leveraging our strengths in planning and design, industrial operations, labor employment, and e-commerce platforms, we have developed a "CSCEC Model" for offering targeted assistance tailored to local conditions. As a "chain leader" in the construction

sector, we actively integrate upstream and downstream resources to foster a multi-stakeholder collaborative framework for revitalization. This approach drives comprehensive rural revitalization in the regions we support.

Key performance

In 2024, we provided non-reimbursable assistance to multiple regions, including those under targeted assistance (Kangle, Kang, and Zhuoni Counties in Gansu Province) and those under paired assistance (Changting County in Fujian Province), benefiting a total of **507,890** people. Specifically, we purchased RMB **62.087** million worth of local agricultural products, allocated RMB **148.1421** million in direct funding, and donated materials worth RMB **790,600**.

Total investment RMB **148.9327** million

- Kangle County was rated "Excellent" in the assessment of ecological environment quality of key national ecosystem service zones across counties.
- Zhuoni County was named one of China's Top 100 Counties with Most Beautiful Countryside.
- Kang County was designated as a national pilot county for building a beautiful and harmonious countryside that is desirable to live and work in.
- Changting County was recognized as one of Fujian Province's "Top 10" Counties (Cities) for Economic Development for the third consecutive year.

Organizational support

Adhering to the principle of "top leadership assuming overall responsibility," CSCEC has strengthened a four-tier collaborative leadership system involving the leading Party Group, headquarters departments, subsidiaries, and officials serving temporary positions in local areas. During the reporting period, the Company held three meetings of the Rural Revitalization Leadership Group and dedicated work sessions on rural revitalization support, focusing on targeted poverty alleviation initiatives. Senior executives and responsible leaders conducted field visits to the three counties and held discussions with senior officials of Gansu Province. A total of 319 on-site research trips and 15 coordination meetings were organized.

CSCEC's four-tier leadership system for rural revitalization



Long-term mechanism

Focusing on the resource endowments of assisted regions, we leverage our strengths in full-industry-chain development to establish a distinctive "CSCEC model"

for offering targeted assistance. We have revised our rural revitalization assistance management measures and issued the annual key tasks and work plan for designated assistance. Moreover, we have assigned specific responsibilities to 12 departments and 35 subsidiaries, while ensuring strict adherence to the implementation schedule.

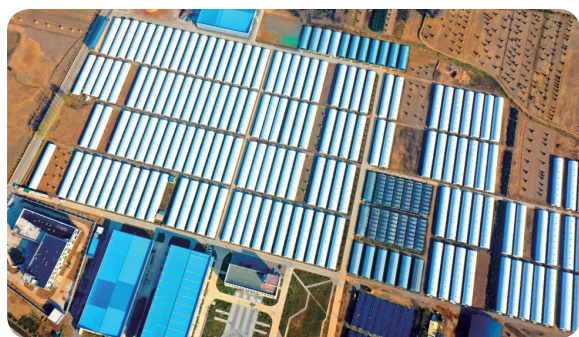
Concrete actions

We center around the five key pillars of rural revitalization, including industrial development, talent cultivation, cultural development, ecological conservation, and organizational strengthening, and tailor our measures to local conditions for targeted impact. We have launched rural industry upgrade initiatives to lay a solid foundation for sustainable revitalization. Simultaneously, we prioritize livelihood improvements, leveraging our expertise, resources, and efforts to drive economic and social progress in assisted regions.

Promoting the development of local industries. As part of our efforts to promote rural tourism, we have funded the construction of six rural tourism infrastructure projects, along with supporting the Hua'er Homestay in Kangle County, the Cultural Commercial Street in Zhuoni County, and the Qinglong Mountain Scenic Area in Kang County. These initiatives drive the integrated growth of the tourism sector. We have also fostered specialized industry chains, including Chinese herbal medicine cultivation and processing, mountain spring water production, and labor export. Among these projects is the Yangba Water Plant in Kang County, which has an annual production capacity of 70 million bottles of mineral water, as well as the investment and operation of the "Longshan Nineteen Springs" brand. Our practice has been recognized as a "Xinhuanet Rural Revitalization Case."

Boosting consumption of local products for public benefits. We have partnered with the assistance campaign launched by central SOEs to maximize the potential of assistance through boosted consumption. We have improved the farmers' income-boosting mechanism, maintained a four-party collaboration model, and operated the "Zhonghai Youjia" physical stores for agricultural product assistance. Through dual e-commerce platforms, we have supported 98 leading

↳ Funding the Modern Agricultural Technology Demonstration Base in Kangle County



enterprises, processed 29,500 orders, and facilitated the purchase and sale of specialty agricultural products worth RMB 62.087 million throughout the year.

Building a beautiful and harmonious countryside that is desirable to live and work in. We have completed provincial registration for the village plans of all 144 villages in Kangle County, drafted a homestay development plan for Zhuoni County, and optimized the 5A-level scenic area plan for Dayu Valley. These efforts contribute to more beautiful and harmonious rural development. In addition, we have supported village collective economies by funding three assistance workshops, aiding 15 village collectives, and facilitating the establishment of a village-owned enterprise in Zhangjiahe Village, Kang County.

Unlocking endogenous drivers of rural revitalization. We have sustained our educational assistance efforts, including establishing the Zhuoni County Education Development Association and launching a series of teacher and student aid programs. To build a robust talent pipeline for rural revitalization, we have organized two rural revitalization training classes in collaboration with Tsinghua University and conducted another 31 training classes for grassroots officials and technical personnel.

Strengthening the grassroots foundation for rural revitalization. We have extensively carried out paired co-construction initiatives and boosted rural development through infrastructure investment. Our projects, including the Tianshui-Longnan Railway and Kangle County's ecological and geological disaster relocation resettlement, have reinforced the foundation for rural construction. In addition, we have organized cultural initiatives such as care and awareness programs for left-behind children, the Beautiful Countryside Children's Painting Competition, and the promotion of Kangle County's original music album, injecting vitality into all-around rural revitalization.

↳ Organizing the Inspirational Summer Camp in Zhuoni County



Voluntary Activities

In response to the Guidelines on Improving the Voluntary Service System in the New Era, CSCEC has enhanced employee volunteer incentive mechanisms. The Company honors outstanding individuals and teams to foster a culture of widespread engagement. Meanwhile, we strive to integrate corporate culture with social welfare, while further solidifying our volunteer service brand known as "Constructing the Future."

In 2024, we integrated volunteer services with our core business operations by implementing structured volunteer programs. Centered on rural revitalization, elderly and disability support, environmental protection, the China International Import Expo (CIIE), and the Belt and Road Initiative (BRI), we launched the "Constructing the Future" youth volunteer campaign. It has fostered mutual reinforcement between volunteerism and corporate development.

Launching volunteer initiatives to support the "dual carbon" goals. Guided by China's carbon peaking and carbon neutrality goals, we mobilized youth volunteers to identify best practices, share experiences, and raise awareness, thereby contributing to steady progress towards the goals.

Carrying out volunteer initiatives to boost "digitalization."

By aligning volunteer services with core business operations, we have organized youth innovation and entrepreneurship programs to enhance operational effectiveness through young talent. In 2024, 35 young volunteer docents facilitated the CSCEC Science and Technology Exhibition, engaging 51,000 visitors.

Initiating volunteer-led educational outreach.

Subsidiaries across all levels have established outreach teams to deliver on-site educational sessions and participate in nationwide campaigns supporting rural left-behind children. Since 2018, we have conducted 700 awareness sessions across 31 provincial regions, and developed a child protection model with characteristics of the construction sector.

Implementing the "Constructing the Future" overseas volunteer programs. We have formed youth volunteer alliances and teams at key projects in priority countries along the Belt and Road, while engaging local young professionals. Chinese and international volunteers have collaborated to design and execute community service initiatives.



Key performance

8 volunteer programs of CSCEC were honored at the 7th Chinese Youth Volunteer Service Project Competition

In 2024

Winning Gold awards	1	The Home Renovation Program for Disadvantaged Families with Minors, co-initiated and actively implemented by China Construction Science and Industry, was listed among Shanghai's public service initiatives for 2024, and received the gold award at the 7th Chinese Youth Volunteer Service Project Competition.
Silver awards	3	
Bronze awards	4	

Community Participation

We have compiled and issued the *Management Measures for Outward Donations* and the *Cultural Integration Manual*. We also guided subsidiaries in key countries to formulate the *Manual for Cultural Integration Implementation*. It is clearly stated that we should strengthen communication with communities,

consult local residents on major projects, and actively participate in local community construction and development. We will continue community investment mainly in charity, education, culture, environmental protection, employee protection, health and sports, etc., so as to fulfill our social responsibilities.



In 2024

CSCEC invested in outward donations and public welfare projects

RMB **154.43** million

RMB 5.12 million in education and RMB 4.58 million in culture.

Creating platforms for talent in the construction industry. With the vision of “empowering talent in innovation and growth, building a win-win future for the construction industry,” we integrate our quality resources around the world to create platforms for talent in the construction industry in the countries where we operate. In 2024, We have implemented the UP WE BUILD program in ten countries, including Egypt and the United Arab Emirates. The UWB program has been

launched to jointly conduct more than 70 activities throughout 2024 in collaboration with government departments, industry associations, construction colleges and upstream and downstream partners, etc. These activities ranged from vocational training, skill practices, lectures, construction knowledge popularization to industry forums, etc., attracting over 5,000 local employees and young students.

Carrying out overseas public welfare activities. CSCEC organized 39 public welfare activities in environmental protection and humanistic care, etc. throughout 2024 to actively fulfill its social responsibilities. We visited orphanages and primary schools in Egypt, Malaysia and Thailand, etc., donating desks, chairs, books to assist the development of education in the countries where we operate. China Construction Eighth Engineering Division held a Ramadan charity activity at the New El-Alamein City project in Egypt, giving Ramadan gifts to local employees and frontline workers of the project. The activity benefited more than 6,000 people and strengthened the people-to-people ties between China and Egypt.

Engaging in post-disaster rescue and recovery. CSCEC fully leverages its strength to shoulder social responsibilities. We unblock the “lifeline” for disaster relief and rescue, safeguarding people’s lives and property. In September 2024, typhoon “Capricorn” landed on Hainan. Our subsidiaries and projects in Hainan actively responded to local calls and quickly engaged themselves in the post-disaster rescue after the super typhoon “Capricorn” left. They promptly investigated potential safety hazards and assisted in local post-disaster recovery.

↳ Safety training jointly held by South Africa Branch of China Construction Second Engineering Bureau Ltd. and the South African National Roads Agency

↳ CSCEC-Taisei Construction, Ltd. under China Construction International immediately formed the “Blue Cube” volunteer service team to stay on the front line for emergency rescue and barrier clearance



Scan the QR code for the video

Scan the QR code for more



Learn about the story of the youth volunteer service team composed of people from China Construction Malaysia Co., Ltd., Raleigh KL, a Malaysian public welfare organization, and other institutions. They helped install solar power generation facilities in the mountainous areas of Malaysia to light up village roads.

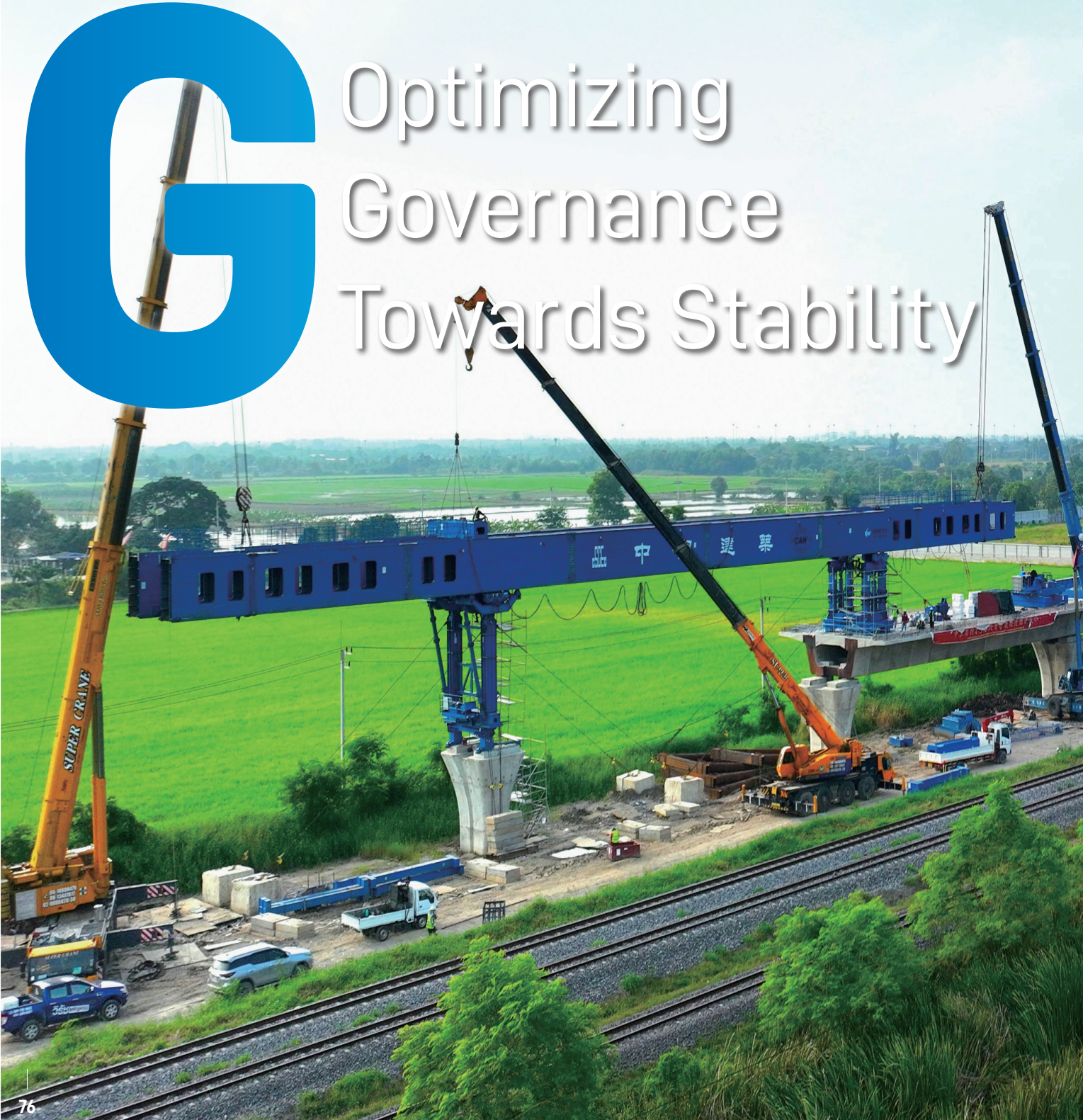


About the post-typhoon “Capricorn” rescue and recovery work of CSCEC subsidiaries in Hainan.



G

Optimizing Governance Towards Stability



Witness ESG—Enabling modern governance, compliant operation, risk control and fine business ethics through ESG initiatives

CSCEC carries forward the traditional Chinese virtue of keeping promises, embraces the values of integrity, rule-based governance and contractual spirit aligned with the market economy and modern governance principles. We are committed to cultivating a robust culture of compliance and integrity. To this end, the Company has improved its governance system and established a well-rounded, science-based and efficient Board of Directors. Meanwhile, CSCEC has established a sound compliance risk management mechanism, and enhanced its compliance risk control capacity, safeguarding the Company's stable operations. The Company works together with its business partners and employees to uphold business ethics, with zero tolerance for corruption and unfair competition, jointly fostering a clean, fair and just industry ecosystem.

In this chapter, we will introduce you CSCEC's ESG approaches to a fair and clean business environment.



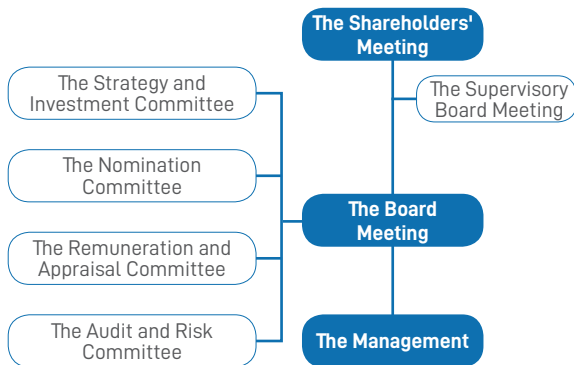
Corporate Governance

Aiming to “create a board that matches a world class enterprise”, CSCEC strengthen the top-level design of the Board of Directors and optimize our working mechanism to continuously strengthen our governance performance. The Board of Directors has four specialized committees under itself¹⁰, whose members are mostly independent directors.

CSCEC's *Articles of Association*, the *Rules of Procedure for the Board of Directors* and the rules of procedure

for specialized committees clearly define their respective scope of authority and responsibilities, as well as the procedures for nomination, appointment, re-election and dismissal. Each specialized committee performs its duties in accordance with these rules and systems, ensuring that the decision-making process for significant matters is maintained standard and efficient. The selection, appointment and dismissal of the Board Secretary shall be approved by the Board of Directors.

↳ Governance Structure



↳ The structure and management system of the Board of Directors and its specialized committees¹¹

The Board of Directors and its specialized committees	Composition	System document
The Board Meeting	7 directors including 4 independent directors	<i>The Articles of Association</i> <i>Rules of Procedure for Board Meetings</i>
The Strategy and Investment Committee Meeting	7 directors including 4 independent directors	<i>The Rules of Procedure for Strategy and Investment Committee</i>
The Nomination Committee Meeting	7 directors including 4 independent directors	<i>The Rules of Procedure for Nomination Committee</i>
The Compensation and Assessment Committee Meeting	4 independent directors	<i>The Rules of Procedure for Remuneration and Appraisal Committee</i>
The Audit and Risk Committee Meeting	4 independent directors	<i>The Rules of Procedure for Audit and Risk Committee</i>

¹⁰ On December 4, 2024, the 8th session of the 4th Board Meeting reviewed and approved the Proposal on Revoking the Supervisory Committee.

↳ Number of meetings held

Meeting type	Number	Number of proposals deliberated
The Shareholders' Meeting	4	24
The Board Meeting	19	104
The Supervisory Board Meeting	9	43
The Strategy and Investment Committee Meeting	10	18
The Nomination Committee Meeting	4	7
The Compensation and Assessment Committee Meeting	3	5
The Audit and Risk Committee Meeting	8	37

¹¹ The responsibilities of the Board of Directors and its special committees are clearly defined in relevant documents, which are available for review.

Validity of the Board

We continuously enhance the Board of Directors(the Board) and ensure the efficacy of the Board's functions, facilitating its rule-based operation. In 2024, the Board of Directors comprised 7 members, including 4 independent directors, accounting for 57.14%. The average tenure was 2.4 years.

The Company attaches great importance to improving the Board members' abilities, thereby ensuring that the Board can effectively perform its duties and responsibilities. In 2024, the Board of Directors conducted two ESG-related training sessions. All serving

independent directors participated in the training on "Key Points and Recommendations for Independent Directors of Listed Companies on Anti-Fraud Duties". All serving directors participated in the legal training on China's latest *Company Law*.

Board assessment is one of the driving mechanisms for improving corporate governance. The Company regularly conducts effectiveness assessments of the Board to identify weaknesses in its performance and accordingly improve its effectiveness. We hold annual performance review for the Board.

▾ Positions of the Board

Name	Position	Gender	Age	Educational Background	Profession	Commencement Date of the Term of Office	The Strategy and Investment Committee	The Nomination Committee	The Remuneration and Appraisal Committee	The Audit and Risk Committee
Zheng Xuexuan	Chairman	Male	58	Doctor's degree	Professor of senior engineering	2021-11-26	Director	Director	/	/
Wen Bing	Director	Male	54	Master's degree	Professor of senior architecture	2024-05-24	Member	Member	/	/
	President					2024-04-29				
Shan Guangxiu	Director	Female	54	Master's degree	Senior economist (professor level)	2023-08-21	Member	Member	/	/
Ma Wangjun	Independent director	Male	60	Master's degree	Senior accountant	2023-05-19	Member	Member	Director	Director
Sun Chengming	Independent director	Male	65	Master's degree	Senior engineer	2021-05-13	Member	Member	Member	Member
Liu Ruchen	Independent director	Male	61	Master's degree	Senior engineer (professor level)	2024-08-30	Member	Member	Member	Member
Liang Weite	Independent director	Male	62	Doctor's degree	Law	2024-08-30	Member	Member	Member	Member

Board Independence

At CSCEC, we have implemented a sound system of independent directors. We have developed the *Rules of CSCEC on the Work of Independent Directors*, which outline specific requirements for the qualifications and the nomination, election, and replacement processes of independent directors; the responsibilities

of independent directors; conditions under which independent directors can express independent opinions; and the training of independent directors. These rules aim to ensure that the selection and appointment of independent directors are based on good faith and impartiality and to enhance the Board's ability to develop

strategies, make decisions, and mitigate risks.

The Company requires that at least one-third of the members of the Board be independent directors. Independent directors must have no direct or indirect interests, or any other relationships that may affect their ability to make independent and objective judgments, with the Company, major shareholders or actual controllers. This ensures that the Board's decisions are in line with the overall interests of the Company and its shareholders. The Board assesses and gives special opinions on the independence of serving independent directors each year, which are disclosed in the Company's annual reports. By the end of the reporting period, the Company's Board of Directors comprised 3 non-independent directors and 4 independent directors.

The Company has established a mechanism for the special meetings and communication meetings of independent directors. The special meetings for independent directors are convened and chaired by a designated independent director. The communication meetings of independent directors review matters requiring Board decisions in

advance, ensuring that independent directors play a full role in decision-making, supervision, checks and balances and professional consultation, thereby protecting the rights and interests of minority shareholders.

CSCEC has clarified the respective authorities and responsibilities of the chairman and the president in the *Articles of Association*, the *Rules of Procedure for the Board*, and the *Rules of Procedure for General Manager's Office Meetings*. We have separated the executive authorities and responsibilities of the chairman and the president enhancing the effectiveness of corporate governance.

To avoid and control conflicts of interest and related party transactions, CSCEC clearly stipulates in the Articles of Association that individuals from the controlling shareholder or actual controller's entity who hold administrative positions other than those of director or supervisor may not serve as senior manager of the Company, unless exempted by China Securities Regulatory Commission. When the Board makes decisions, related directors must abstain from voting.

Board Diversity

CSCEC follows the principle of diversity and is vigorously building a diversified Board of Directors. The appointment of directors takes into account such factors as gender, age and expertise, while also considering the candidates' industry experience, skills and work history. The approach ensures a more professional and diverse management perspective, underlying the Company's steady growth. In 2024, the Company's Board of Directors included 4 independent directors account for 57.14%, and 1 female director accounting for 14.29%. The Board consists of members with diverse professional backgrounds, including engineering, real estate, economics, finance, corporate management, accounting and strategic management. The diversified composition enables effective checks and balances, contributing to a balanced system of authority and responsibility and the science-based decision-making.

Ma Wangjun is one of the independent directors who currently serves as a full-time external director for central state-owned enterprises. As a senior accountant, he previously served as the chief accountant of COFCO

and China Tourism Group. As an expert in accounting, he has professional knowledge and extensive experience in financial risk management. Ma Wangjun is one of the independent directors who currently serves as an external director of China Tourism Group. He previously held the position of Deputy General Manager at China Merchants Group with the title of senior engineer. He has rich experience in strategic management. Liu Ruchen is one of the independent directors who has the title of senior engineer (professor level). He previously served as a member of the Standing Committee of the Party Committee of China Railway Construction Corporation Limited. He is professional in engineering construction and corporate management. Liang Weite is one of the independent directors who currently serves as the Chairman of Boao Forum for Asia Macao Committee for the Development of Guangdong-Hong Kong-Macao Greater Bay Area. He previously held the position of Secretary for Economy and Finance of Macao SAR Government. He is professional in macroeconomics, finance and strategic planning.

Compliance System Enhancement

CSCEC fully implements the requirements of the *Compliance Management Measures for Central SOEs*, and has formulated the *Compliance Management Regulations*. On that ground, the Company has established a “1+1+N” compliance management system, with *the Legal and Compliance Review Measures* as its core and a series of special compliance guidelines and risk lists as the support, which include the *Practical Compliance*

Guidelines for Safe Production Responsibilities, the *List of Prohibited Practices in Finance and Investment Operations*, the *Environmental Protection Responsibility List*, and the *Compliance Risk Database*. In addition, CSCEC has formulated the *Regulations on the Management of Related Party Transactions*, which clearly define the management procedures for such transactions to ensure fairness and compliance.

Diversified Compliance Measures

CSCEC coordinates efforts across four key tasks, including governance compliance, management compliance, business compliance and subsidiary

compliance. We continuously strengthen our compliance framework to consolidate the foundation for high-quality development.

Compliance management measures

Four key tasks for compliance management	Contents
Governance compliance	Company leadership is responsible for advancing key compliance initiatives, taking the lead in signing compliance commitments and guiding over 300,000 employees to complete their annual compliance commitment letters. Subsidiaries are required to designate chief compliance officers. We have organized chief compliance officer training sessions and joint meetings for two consecutive years.
Management compliance	We organized compliance training for compliance personnel and conducted compliance management surveys among management staff. We conducted training on multilateral sanctions and long-arm jurisdiction, corporate transparency and international project dispute resolution, promoting comprehensive compliance in overseas operations. We rolled out special audits in key areas such as major investment projects.
Business compliance	We developed a compliance risk checklist and incorporated compliance requirements into job descriptions and department management responsibilities. We implemented compliance reviews of approval processes for economic contracts, rules and regulations and major decisions. We launched an overseas business legal awareness education campaign, established a foreign legal and regulatory database, and published 47 country-specific compliance guidelines to enhance our capacity to manage compliance risks abroad.
Subsidiary compliance	Compliance management is a mandatory training content for external directors, new employees and expatriates. A total of 1,650 compliance training sessions were held by 35 subsidiaries. 29 second-tier subsidiaries conducted compliance effectiveness assessments for 303 third-tier subsidiaries under their management. Over 2,670 compliance culture activities were organized, along with over 4,300 legal and compliance awareness training sessions including legal lectures and compliance training.

Tighter Audit and Supervision

CSCEC continues to improve its internal audit leadership system. We have established an audit leadership team comprising the Chairman, CEO, CFO and heads of relevant departments at the headquarters to oversee and advance audit tasks. In 2024, the headquarters organized 5 audit leadership team meetings, and reviewed 18 proposals. A total of 158 subsidiaries established their own audit leadership teams, reviewing 636 proposals.

The Company conducted audits and supervision over key areas and main responsibilities and core business, completing a total of 2,083 audit projects throughout the year. Specifically, the headquarters strengthened audits of business ethics and anti-corruption, and improved audit procedures for implementing the "ten prohibits" in marketing, subcontractor collusion and false reporting of completed projects. These were incorporated into the economic responsibility audit plan and internal control testing manual and became the highlights in audit projects. The audit results were reviewed by the audit leadership team and strict corrective actions were enforced. At the same time, the Company fully leveraged the role of audit assurance and evaluation, and conducted 380 economic responsibility audits throughout the year. The economic responsibility audit reports for the headquarters and second-tier subsidiaries achieved full coverage of accountability for identified issues, further standardizing the performance of leadership duties.

Specifically, the headquarters implemented the "economic responsibility audit + audit investigation" mechanism, where key issues identified in the economic responsibility audit were simultaneously investigated, with investigation reports provided. The audits included industry research, peer benchmarking and data analysis, providing recommendations for the management's decision-making as references.

To assess the ESG progress of the Company and its subsidiaries, during the reporting period, the Company conducted audit investigations on the ESG practices of each subsidiary. We identified and evaluated the effectiveness of ESG strategy implementation and issues and risks encountered in the ESG process, providing recommendations for improvements. The ESG audit investigation utilized such methods as data collection, interviews, document review and verification, comparative checks and report comparisons. The results were formed from aspects including strategic planning, management mechanisms, organizational support, training and report disclosures. The investigation summarized highlights, identified issues, and provided audit recommendations.



Honor:

CSCEC's internal audit work has been rated as a Grade-A by the State-owned Assets Supervision and Administration Commission for two consecutive years.

Risk Control

CSCEC has established an all-round risk management system. The Company continues to build a clearly defined, multi-tiered risk governance structure and has developed "three defense lines" for coordinated risk management. In addition, CSCEC further improved its comprehensive risk management system, and integrated risk control into key business processes, in a bid to enhance risk control capability and strengthen operational resilience.

Risk Management Organization

CSCEC has established three defense lines for risk management, paving the way for its sound operation and high-quality development.

↳ Three defense lines for risk management

Three Defense Lines for Risk Management	Department	Responsibility
The first defense line	Business and functional departments at headquarters, subsidiaries	As the direct responsible bodies for risk management, business and functional departments at headquarters and all subsidiaries perform the duties of the first defense line. They formulate and implement their own risk management systems within the realm of their function, build risk management teams, and carry out risk identification, assessment, monitoring, treatment and other measures.
The second defense line	Risk and Compliance Management Committee	We adopt the approach of centralized risk management. The Risk and Compliance Management Committee's office is set under the Legal Affairs Department. As the second defense line, it is responsible for establishing and improving the risk management system in accordance with the Board' decisions and coordinating with several business departments to identify, evaluate, monitor, and resolve relevant risks. All of the Company's second-tier subsidiaries have set risk and compliance management committees. The ratio is over 90% for third-tier subsidiaries. In 2024, 1,206 meetings were convened by risk and compliance management committees at all levels, with 7,969 proposals deliberated.
The third defense line	The Audit and Risk Committee	As the supervisory body for risk management, the Audit and Risk Committee performs the duties of the third defense line. It is responsible for supervising the implementation and operation of the "Three in One" system (rule of law, compliance, risk management), reviewing relevant systems and mechanisms and annual work reports.

Risk Management System

CSCEC has formulated such systems as the *Risk Management Rules and the Management Measures for Risk Assessment*. We continue to optimize our organizational infrastructure and centralized system for risk control, and clarify the responsibilities for different levels, making strides in risk management. In 2024, CSCEC developed the *Risk Element Inventory*,

which concludes 99 key risk elements across five major categories: strategy, market, finance, operation and law and compliance. A total of 114 risk monitoring and early warning indicators were established, with designated lead departments assigned to each risk, significantly enhancing the precision and responsiveness of the Company's risk monitoring capability.

↳ Risk management measures

Risk Management Measure	Contents
Risk prediction and assessment	We carried out <i>2025 Major Operational Risk Prediction and Assessment</i> , based on which we compiled the 2025 Major Operational Risk Prediction and Assessment Report. We accurately identified potential risks, comprehensively assessed the overall risk we might face, and analyzed the root causes from a multiple of perspectives.
Risk stress testing	Drawing on both domestic and international credit rating methodologies and matching them with the Company's core business, CSCEC established a credit evaluation system covering six key areas including overall business scale. Leveraging the dynamic monitoring, analysis and benchmarking functions of the treasury system, CSCEC has strengthened its capability to monitor and assess corporate debt risks.
Risk report handling	CSCEC has established a internally connected risk incident reporting mechanism. Following the principles of tiered and categorized management, we consistently reinforce the accountability for risk control, and strive to ensure timely and effective response to risk incidents.
Risk culture training	To strengthen risk culture training, we organized subsidiaries to participate in the 2024 SOE Risk Prevention and Control Online Training Program launched by the State-owned Assets Supervision and Administration Commission, enhancing their risk management capabilities and performance. We have integrated risk management into the annual performance evaluation of subsidiaries at all levels and into the annual assessment of various business systems, ensuring that the risk management culture is incorporated in our corporate culture.

Business Ethics

CSCEC is wholeheartedly implementing the integrity cultural philosophy of "Upholding Morality for High-quality Construction, Practicing Integrity as a Solid Foundation". CSCEC adheres to honest business practices and upholds business ethics. The Company has formulated and is strictly implementing such anti-corruption policies as the *Implementation Measures for Strengthening Daily Supervision and Guidelines for Overseas Integrity and*

Compliance Supervision. These measures demonstrate our commitments to business ethics, employee conduct, anti-corruption, and other areas. We are making every effort to conduct strict supervision and management in daily operation. Meanwhile, CSCEC organized the "Be a Civil and Courteous CSCEC Employee" campaign to enhance employees' standards of business ethics and foster a culture of integrity and moral conduct.

Anti-corruption and Anti-bribery

Anti-corruption management system

CSCEC has established a sound anti-corruption system. We comprehensively reviewed and compiled 53 regulations covering supervision and inspection, investigation and accountability, anti-corruption governance and the integrity culture. In the end, we

formed a full-chain corruption prevention and control mechanism of "prevention – supervision – response – education". We are leveraging our institutional infrastructure to consolidate integrity conducts for the sake of the Company's high-quality development.



Anti-corruption management organization

The Company has established a three-tier anti-corruption supervision and management system comprising the Leadership Group for Integrity and Anti-Corruption Work, the Coordination Group for Integrity and Anti-Corruption Work and functional departments,

laying a solid foundation for its anti-corruption efforts. During the reporting period, the Leadership Group for Integrity and Anti-Corruption Work reviewed 26 topics and conducted assessments of commercial bribery and corruption risks.

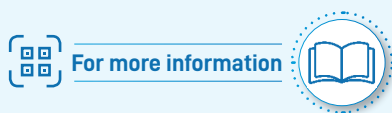
↳ Anti-corruption organizational system

Anti-corruption organization	Responsibility
The Leadership Group for Integrity and Anti-Corruption Work	Set annual anti-corruption goals and key tasks, and oversee the anti-corruption work.
The Coordination Group for Integrity and Anti-Corruption Work	Coordinate integrity building and anti-corruption efforts, create synergy, and ensure implementation.
Functional departments	Strengthen anti-corruption supervision in key areas and critical links such as marketing, financial management, legal risk prevention and personnel management, and provide timely feedback on identified corruption issues along with recommendations.

Anti-corruption measures

Anti-corruption measures

Anti-corruption measures	Contents
Anti-corruption supervision and inspection	We developed the <i>2024 Disciplinary Inspection and Supervision Group Checklist</i> , in which we defined 30 key requirements. We conducted targeted daily supervision and inspections to promptly identify and assess integrity risks in business operations and release early warnings. We bear no tolerance against corruption. In 2024, we reported 10 violators to local supervisory authorities.
Supply chain corruption governance	We held a supply chain management conference to communicate integrity cooperation requirements to suppliers and sign integrity cooperation agreements. We implemented the supplier blacklist system and included 287 suppliers who seriously violated integrity commitments in the "prohibited trading enterprise list".
Cross-boarder corruption governance	We established a comprehensive overseas integrity risk management system, consisting of four key components: overseas team development as the foundation; integrity and compliance supervision and inspection for coordination and enforcement; finance and audit for monitoring and correction; and coagement as the safeguard. We established compliance management and supervision departments in 14 overseas subsidiaries, with 95 compliance officials appointed. We optimized market layout, and imposed strict control over business activities in countries ranked in the bottom 20 of the Corruption Perceptions Index.
Anti-corruption culture	We held 837 warning education sessions and 31,000 integrity training sessions covering over 360,000 employees and all subcontractors, achieving a 100% coverage rate for anti-corruption and integrity education. At the company level, 26 targeted warning education sessions were conducted for key personnel and certain key enterprises, covering over 3,700 individuals. Disciplinary regulation and system training and tests were conducted for middle and senior managers, covering over 9,000 individuals, with a 100% pass rate. In addition, we held the "Integrity Lecture" to strengthen the anti-corruption supervision and law enforcement capabilities of discipline inspectors and supervisors, covering over 5,000 participants, with a 100% coverage rate.



For more information

Scan the QR code to learn more about CSCEC's integrity education activities.



Disciplinary Inspection and Supervision Agencies Conduct Warning Education at Frontline to Safeguard Integrity and Efficiency in Construction Projects



Strengthening Integrity Education for New Hires: Fastening the "Seat Belt" for Professional Conduct

Whistleblower protection

CSCEC has formulated the *Management Measures for Handling Whistleblowing Cases and Complaints*, which stipulate that individuals whose legal rights are threatened or infringed upon due to whistleblowing actions or complaints may apply for protection. The

Company's official website offers a supervision and reporting platform, providing an anonymous reporting option to protect the supervisory rights of employees and external stakeholders. In addition to online reporting, complaints can also be submitted through letters and visits.

CSCEC's reporting channel

Communication and visiting address:

Disciplinary Inspection and Supervision Group, China Construction Fortune International Center, Building 3, Courtyard 5, Anding Road, Chaoyang District, Beijing, China.

Postal Code: 100029

Reporting website: <https://jubao.cscec.com/web/index.html>

Anti-monopoly and Fair Competition

Upholding fair competition, CSCEC strictly abides by the *Anti-Monopoly Law*, the *Anti-Unfair Competition Law* and other relevant Chinese laws and regulations. During the reporting period, CSCEC issued the *Several Provisions on Promoting High-Quality Marketing* to firmly oppose vicious competition within the industry, and introduced the *Measures for the Management of Bid Complaints* to prevent such unfair competition practices as false advertising and infringement of trade secrets. CSCEC is committed to upholding orderly and compliant competition among its subsidiaries. While upholding industry order, the Company is following the directives of the Central State-Owned Construction Enterprises

Self-Discipline Alliance. We are firmly committed to maintaining a fair and orderly environment for competition, enhancing regular communication with other central state-owned construction enterprises, providing suggestions to regulatory authorities and industry associations, and taking the lead in fighting against industry misconducts and vicious competition.

Key performance

Lawsuit case against unfair competition


0

Tax Policy

In accordance with relevant laws and regulations, CSCEC vigorously fulfills its tax obligations, discloses tax information as required, and timely declares and pays taxes. To keep tax risk at bay, CSCEC has established a regular tax gap assessment mechanism, utilizing digital tools and adopting a combination of data analysis and expert judgment methods to identify,

analyze, and assess risks across all tax categories. Based on the assessment results, CSCEC has refined its tax management policies, strengthened employee tax training, and enhanced tax compliance awareness across the board. During the reporting period, CSCEC maintained a small tax gap and a high level of tax compliance, with zero tax dispute incident.

ESG Key Performance

Topic	Secondary Heading	Indicator	Unit	2024	2023	2022	
 Environmental Performance	Feature Two: Climate Change Response and Green Development Responsibility	The carbon intensity per RMB 10,000 of output declined year-on-year	%	Complete the annual assessment target of SASAC	4.3	/	
		Advanced scientific and technological achievements for carbon peaking and carbon neutrality	project	97	117	77	
	Environmental Management	Environmental investment and expenditure	RMB 100 million	6.86	6.98	6.8	
		The Company, headquarters of second-tier subsidiaries, and third-tier subsidiaries maintaining valid certification of the ISO 14001 environmental management system	subsidiary	280		189 ¹²	
		EIA pass rate of newly-built projects	%	100	100	100	
		Environmental protection training	session	Over 2,100	Over 2,000	Over 1,800	
		Trainees of environmental protection training	trainee	Over 82,000	Over 73,000	Over 61,000	
		Demonstration green sites	site	237	300	N/A	
	Green Development	Achievements in green and low-carbon practices on construction sites	achievement	63	58	N/A	
		Resource Utilization	Investment in clean energy R&D	RMB 100 million	320.10	322.69	300.60
		Green Development	Investment, construction, or operation projects as near-zero-energy/zero-carbon building demonstration projects	project	18	10	N/A
			Projects with green building certification	project	1,013		Over 2,000 ¹³
			Three-star green buildings	project	151		215 ¹⁴

Note: 12 | 13 | 14 The data collection period spans to the end of 2023.

Topic	Secondary Heading	Indicator	Unit	2024	2023	2022	
Safety and Health		Work-related fatalities (Full-time employees)	person	1	0	0	
		Work days lost due to occupational injuries (Full-time employees)	day	9,590	/	/	
		Inspection results of the company's inspection teams	Project inspections	inspection	380	316	246
			Risks and hidden perils identified	risk	3,767	1,651	3,522
		Safety awards	National Learning and Exchange Project for the Safety Production Standardization of Construction Projects by the China Construction Industry Association	project	233	239	176
			ISA International Safety Award by the British Safety Council	project	484	275	133
			Safety Science and Technology Award by the China Association of Work Safety	project	54	37	16
		Details of the Safe Production Month	Safety Consultation Day	session	8,485	3,700	3,624
			Safety observation and exchange at the provincial level and above	session	149	200	197
		Quality Assurance		Major quality incidents	number of incidents	0	/
Signing rate of post-specific quality responsibility agreements for projects under construction	%			100	100	100	
Customer satisfaction rate ¹⁵	/			96.9 points	95.86%	95.94%	
Resolution rate for all customer complaints	%			100	/	/	
Major information security incidents	number of incidents			0	0	/	
Complaints related to customer privacy violations or data loss	number of incidents			0	/	/	
Coverage of responsible marketing training for all marketing personnel	%			100	/	/	
Total investment in R&D	RMB 100 million			454.59	460.74	497.53	
Patent applications	piece			13,381	14,550	10,699	
Patent authorizations	piece			13,984	12,276	8,291	
Trademark applications and authorizations	Trademark applications	piece	265	155	98		
	Trademarks registered	piece	178	23	99		
	Accumulative trademarks registered	piece	1,357	1,179	1,156		
Sustainable Supply Chain		Total suppliers	company	117,402	112,825	121,438	
		Number of suppliers by region	Northeast China	company	4,007	4,001	4,243
			North China	company	16,372	16,147	18,335
			East China	company	42,187	40,452	42,135
			Central China	company	17,729	17,243	19,793
			South China	company	14,747	13,808	14,806
			Southwestern China	company	13,603	12,952	13,386
			Northwest China	company	8,757	8,222	8,740
		Qualified green suppliers joined the green building materials marketplace on yzw.cn	company	6,955	6,423	/	
		Proportion of green suppliers among awarded vendors in regional joint procurement	%	26	/	/	


Note: The "/" in the table means that relevant indicators have not been disclosed in previous years.










15 | The methodology for customer satisfaction management has been upgraded, and the statistical measurement criteria have been adjusted accordingly. Please refer to the "Customer Service: Customer satisfaction management" section of the report for specific details.

Topic	Secondary Heading	Indicator	Unit	2024	2023	2022	
Social performance	Employee Rights and Development	Total Number of Employees	Total Full-time Employees	person	361,249	382,894	382,492
		Full-time Employees by Gender	Male	person	288,495	309,540	302,136
			Female	person	72,754	73,354	80,356
		Full-time Employees by Age	Under 30	person	143,619	153,968	163,865
			30-50	person	188,617	198,738	187,414
			Over 50	person	29,013	30,188	31,213
		Expenditure on employee education and training		RMB 100 million	10.2	11.3	7.8
		Total training participants		person-time	2,210,000	2,190,000	2,060,000
		Percentage employees admitted to trade unions		%	100	100	100
		Percentage of subsidiaries with a trade union		%	100	100	100
	Coverage of social security		%	100	100	100	
	Contract signing rate		%	100	100	100	
	Community Communication and Participation	Rural Revitalization	Number of beneficiaries	person	507,890	317,175	113,655
			Total investment	RMB 10,000	14,893.27	15,849.9	16,135.8
Funds			RMB 10,000	14,814.21	15,496	15,783.2	
Value of supplies			RMB 10,000	79.06	353.9	352.6	
Community Participation		Total amount of outward donations and public welfare inputs	RMB 10,000	15,443	15,989.9	21,882	
		Education	RMB 10,000	512	998	1,375	
		Culture	RMB 10,000	458	140	341	
Volunteer Services		Number of volunteer organizations	organization	Over 1,900	Over 1,800	Over 1,600	
		Number of volunteers	person	Over 90,000	120,000	110,000	
		Number of volunteering activities	session	Over 10,000	Over 10,000	Over 13,000	
	Total hours of volunteering	hour	Over 110,000	Over 110,000	Over 180,000		
Governance performance	Corporate Governance	Meetings of the Board of Directors	session	19	23	18	
		Shareholders' General Meetings	session	4	3	2	
		Meetings of the Strategy and Investment Committee	session	10	15	14	
		Meetings of the Nomination Committee	session	4	4	2	
		Meetings of the Compensation and Assessment Committee	session	3	3	2	
		Meetings of the Audit and Risk Committee	session	8	6	10	
		Number of directors	person	7	7	6	
		Number of independent directors	person	4	4	4	
		Number of female directors	person	1	1	0	
		The average tenure of the Board of Directors	year	2.4	3	2.3	
Compliance Management	Audit projects completed	project	2,083	2,184	1,665		
Business Ethics	Payment of taxes	RMB 100 million	766	770	810		

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Contribute to UN SDGs

UN SDGs	Chapter Index
	<ul style="list-style-type: none"> Community Communication and Participation
	<ul style="list-style-type: none"> Community Communication and Participation
	<ul style="list-style-type: none"> Safety and Health, Sustainable Supply Chain, Community Communication and Participation
	<ul style="list-style-type: none"> Community Communication and Participation
	<ul style="list-style-type: none"> Employee Rights and Development
	<ul style="list-style-type: none"> Resource Utilization, Emission Reduction and Pollution Control
	<ul style="list-style-type: none"> Feature Two: Climate Change Response and Green Development Responsibility, Resource Utilization, Green Development
	<ul style="list-style-type: none"> Employee Rights and Development

UN SDGs	Chapter Index
	<ul style="list-style-type: none"> Feature One: Technology for Better Living, Innovation for Industry Leadership, Quality Assurance
	<ul style="list-style-type: none"> Community Communication and Participation
	<ul style="list-style-type: none"> Feature One: Technology for Better Living, Innovation for Industry Leadership, Feature Two: Climate Change Response and Green Development Responsibility, Green Development
	<ul style="list-style-type: none"> Quality Assurance
	<ul style="list-style-type: none"> Feature Two: Climate Change Response and Green Development Responsibility
	<ul style="list-style-type: none"> Biodiversity Conservation
	<ul style="list-style-type: none"> Biodiversity Conservation
	<ul style="list-style-type: none"> Corporate Governance, Compliance Management, Risk Control, Business Ethics
	<ul style="list-style-type: none"> Quality Assurance, Sustainable Supply Chain

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Third-Party Assurance Statement



Independent Assurance Statement

To: stakeholders of China State Construction Engineering Corporation

China Quality Certification Centre Co., Ltd. (CQC), commissioned by China State Construction Engineering Corporation (hereinafter referred to as China State Construction), conducted the independent assurance of 2024 Environmental, Social and Governance/ Sustainability Report of China State Construction Engineering Corporation (hereinafter referred to as the ESG Report).

China State Construction was responsible for collecting, summarizing, analyzing, and disclosing the information and data mentioned in the ESG report. CQC implemented report verification within the scope specified in the agreement with China State Construction. China State Construction is the designated user of this statement.

This statement was based on the assurance activities conducted on the ESG report prepared by China State Construction with reference to SASAC Guiding Opinions on the High Standard Fulfillment of Social Responsibility by Central Enterprises in the New Era, the United Nations Sustainable Development Goals (SDGs), GRI 2021 Standards, Shanghai Stock Exchange's Self-Regulatory Guidelines for Listed Companies No. 14 - Sustainable Development Reports (Trial) and Self-Regulatory Guidelines for Listed Companies No. 4 - Compilation of Sustainable Development Reports. China State Construction is responsible for the authenticity, accuracy, and completeness of the report content.

Scope of Assurance

The key data and information disclosed in the ESG report of China State Construction.

Basis for Assurance

AA1000 v3, Type 2, Moderate Assurance

Assurance Methods

The methods used in this assurance include but are not limited to:

- Report review;
- Interviews;
- Verification of documents, records, certificates, bills, and other materials;
- Field verification;
- Trusted information source verification;
- Verification against disclosure basis;
- Recalculation/estimation;
- Confirmation of statistical, calculation/estimation processes.

Limitations

- This assurance was conducted using sampling methods based on quantitative and qualitative risk analysis and the sampling scope was limited to the data and information selected in the ESG report, not fully tracing or independently recalculating all raw data of China State Construction.
- This assurance only covered interviews and/or document review with China State Construction and its subsidiary companies, and did not involve external stakeholders.
- The data and information audited/verified by a third party in the ESG report were not subject to repeated verification during this assurance process.
- Some of the data and information in the ESG report cannot be compared and verified through independent sources. This assurance only evaluated their reasonableness.
- Activities outside the scope of information disclosure were not included in this assurance.
- The statement regarding the position, viewpoints, beliefs, goals, future development directions, and commitments of China State Construction was not included in this assurance.

Statement on Independence and Verification Capability

China Quality Certification Centre Co., Ltd. (CQC) is a third-party certification body with independent legal status, possessing professional qualifications and experience in providing assurance services related to sustainable development. CQC maintains independence and

impartiality in this assurance process, possesses the technical capabilities and industry-specific knowledge required to conduct ESG report assurance, in compliance with the requirements of AA1000 assurance standard v3 for an assurance provider. The assurance team is composed of experienced AA1000 practicing certified sustainability assurance practitioner (PCSA), CCAA (China Certification and Accreditation Association) registered quality, environment, energy, occupational health and safety, compliance, anti-bribery and other management system auditors and APSCA (Association of Professional Social Compliance Auditors) registered auditors.

CQC ensured that there were no conflicts of interest with China State Construction and its stakeholders during the assurance process of this report. All information in the ESG report was provided by China State Construction. CQC and the personnel conducting this assurance of the ESG report were not involved in the preparation process of the ESG report.

Assurance Conclusions

The ESG report reflects the ESG performance of China State Construction in 2024, which meets the requirements of AA1000 v3 and AA1000AP:

Inclusivity: China State Construction has identified both internal and external stakeholders, including shareholders/investors, government/regulatory agencies, employees, customers (owners), suppliers, subcontractors, communities, partners, media, academic institutions. In the report preparation process, the expectations and needs of stakeholders have been considered.

Materiality: Based on the principle of impact materiality and financial materiality, China State Construction has identified material ESG issues to reflect the actual and potential impacts, risks, and opportunities of the company, and developed a stakeholder mapping through scientific methods (including stakeholder research, industry benchmarking, expert evaluation, etc.).

Responsiveness: China State Construction has established a governance structure, management system and processes, as well as a communication mechanism with stakeholders, capable of taking action to respond to the material issues of high importance and impact on China State Construction and its stakeholders.

Impact: Through quantitative or qualitative methods, or a combination of both, China State Construction has disclosed the main impacts on itself and its stakeholders in terms of ESG.

Specific performance information: Based on the process and results of this assurance, we have not found any deficiencies in the reliability and quality of key data and information in the ESG report.

Recommendations

Based on the assurance findings, it is recommended that:

China State Construction further optimize the cross departmental and cross level collection process of ESG data, and enhance the traceability of ESG data.



President of CQC, 谢荣照
April 14, 2025
Beijing, China

Note: In case of any inconsistency or discrepancy, the Chinese version of this assurance statement shall prevail, while the English translation is used for reference only.

Feedback

Dear reader,

Thank you very much for spend time in reading the CSCEC 2024 Environmental, Social and Governance and Sustainability Report. We eagerly look forward to your comments and suggestions on the report and our work. Your attention and support make important impetus for us to continue to promote our sustainability management and practice.

We are looking forward to your reply!

Multiple Choice (Please tick the corresponding box.)

Which category of CSCEC's stakeholders does your organization belong:

Shareholder Employee Supplier Customer Government
Community Academic institution Others (please specify) _____

Is all the information you are concerned about reflected in the report?

Yes Partly No

Your overall evaluation of CSCEC 2024 Environmental, Social and Governance and Sustainability Report:

High Medium Low

Readability (It is presented in an easy-to-understand way, with aesthetically pleasing design and convenient access to required information.)

High Medium Low

Credibility (The information reported is truthful and reliable.)

High Medium Low

Completeness of information (Both positive and negative information is covered, meeting your needs for information.)

High Medium Low

Is it easy for you to locate the information you are concerned about in the report?

Yes Partly No

Do you expect paper or electronic reports in the future?

Paper Electronic

Other comments and suggestions on CSCEC 2024 Environmental, Social and Governance and Sustainability Report are welcome.

• **Name:**

• **Organization:**

• **Contact Info:**



Scan the QR code and fill out the feedback forms



中國建築
CHINA STATE CONSTRUCTION

Address: China Construction Fortune
International Center, Building 3, Courtyard 5,
Anding Road, Chaoyang District, Beijing, China
Postcode: 100029
Tel: (8610) 86498888
Website: <http://www.cscec.com>



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