



China Machinery Engineering Corporation

Sustainable Development Report 2021

# Sustainable Development Report

## 2021

China Machinery Engineering Corporation

Contribute to the World with Responsibility



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## About this report

### Reporting time range

From January 1, 2021 to December 31, 2021, some contents and data are appropriately traced back to previous years.

### Report issuing period

This report is an annual report and the ninth social responsibility report and the second sustainable development report issued by China Machinery Engineering Corporation, which was first renamed as “Sustainable Development Report” in 2020.

### Report organization scope

China Machinery Engineering Corporation and its subordinate enterprises.

### Report title description

For ease of expression and convenience of reading, China Machinery Engineering Corporation is also hereinafter referred to as “CMEC”, “CMEC Group”, “We”, “the Company” and “CMEC”. Among them, China National Machinery Industry Corporation, the controlling shareholder of China Machinery Engineering Corporation, is hereinafter referred to as “SINOMACH”.

The subordinate enterprises of China Machinery Engineering Corporation are hereinafter referred to as their abbreviations: China National Electric Engineering Co., Ltd. is referred to as “CNEEC”, China Machinery Industrial Products Co., Ltd. is referred to as “CMIPC”, China Machinery International Engineering Design and Research Institute Co., Ltd. is referred to as “CMIE”, China Jikan Research Institute of Engineering Investigations and Design Co., Ltd. is referred to as “JK Institute”, China Equipment International Trading Co., Ltd. is referred to as “CMECINT”, and CMEC General Machinery Import & Export Co., Ltd. is referred to as “GMIE” and Beijing Scientech International Project Management Co., Ltd. is referred to as “BJSI” and so on.

### Report data source

The data in the report are from the 2021 work report and other official documents of China Machinery Engineering Corporation, and some historical data are retroactively restated according to changes in accounting standards. The currency unit referred to herein is RMB Yuan unless otherwise stated.

### Report preparation bases

The Guiding Opinions on Fulfilling Social Responsibilities of Central Enterprises and The Guiding Opinions on Better Fulfilling Social Responsibilities of State-owned Enterprises issued by the State-owned Assets Supervision and Administration Commission of the State Council

The Sustainability Reporting Universal Standards (GRI Standards) issued by the Global Reporting Initiative (GRI)

ISO 26000: The Guidance on Social Responsibility (2010) issued by the International Organization for Standardization (ISO)

The Guide on Social Responsibility for Chinese International Contractors and The Guidelines of Sustainable Infrastructure for Chinese International Contractors (SIG) issued by China International Contractors Association.

### Report version acquisition

This report is available in both Chinese and English, and is issued in both hard and electronic formats.

In case of any discrepancy between the Chinese version and the English version of this report, the Chinese version shall prevail. For a hard copy of the report, please contact us. Moreover, you can also visit the website of China Machinery Engineering Corporation ([www.cmec.com](http://www.cmec.com)) to download the electronic version of this report.

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## Corporate governance

### Strengthen the guidance of party building

In 2021, with “The Greatness of Country” in mind, the Corporate Party Committee Company is focusing on primary responsibilities and major works, unite and lead all party members, cadres and employees, spare no effort to drive a better beginning and starting of corporate “14th Five-Year Plan” .

#### Leading corporate development with political construction of the party

- Covering party organizations at all levels and all party members with normal learning, monographic and specific learning.
- Carefully implement the “First Subject” system. 10 times of learning meetings and central seminars for central team in total are convened. The 14th Monographic study of Party committee implemented the spirits contained in important directions and instructions of General Secretary Xi Jinping, formed a routing mechanism of learning, follow up supervision and regular reporting. Formulated and implemented System of Party Committee Meetings (tentative), Implementing Regulations for Board of Directors to Govern Enterprise by Law and Prepositive Procedure for Execution of “Decision of Major Matters, Appointment and Dismissal of Key Officials, Arrangement of Major Projects, and Utilization of Large-value Funds” , Implementation methods for the decision-making system of “Decision of Major Matters, Appointment and Dismissal of Key Officials, Arrangement of Major Projects, and Utilization of Large-value Funds” , as well as other important rules.



Gathering strong momentum through learning and education of party history. Based on requirements of “learning party history, comprehend thoughts, do practical businesses, create new situations” , meticulously dispose and promote from all aspects, thus make learning and education of party history become the spiritual baptism and political mobilization for promotion of corporate reformation and development.

Corporate management of Party Committee are taking the lead of party lectures

Always go with the party

Build the Chinese Dream together



“Erudite CMEC people” knowledge competition for party history



Exhibition of Backbone of Great Power & Following the Party forever – Show of employees’ calligraphy, painting and photograph works of “Impression of CMEC & Hundred-year glory”

#### Promote foundation reinforcement through deep integration of party building with operation

- Formulate and implement Guiding Opinions on strengthening deep integration of party construction with businesses.
- Conducted appraisal activities for creation of “characteristic brands for integration of party building with operation” , studied and formulated Guiding opinions on overseas party building works.
- Formulated and implemented Tentative methods for examination and evaluation of party building works by party organizations at grassroots level, established a relatively perfect closed-loop system of party building works.
- Sorted and constructed 8+2+N corporate “big propaganda” pattern that closely integrates business propaganda, brand construction and humanistic care.

#### Create a clear environment through coordinating main responsibility and supervision responsibility

- Strengthen political supervision, take implementation of work arrangement of “stabilize outside and plough inside” as the key point of supervision and inspection.
- Broaden paths of supervision, conduct supervision inspection on implementation of business vehicles, positional consumption as well as related systems.
- Deepen addressing both symptoms and root causes, identify warning education. Conduct delivery of warning party lectures by disciplinary inspection cadres and similar activities.
- Coordinate and promote inspection tour, patrolling and rectification works, conduct “combination of patrolling and examination” . 3 overseas comprehensive supervision teams are formed to conduct “big supervision” works on overseas projects.



Conduct field teaching activities for clean education with a theme of “strengthen party spirit, stay true to the mission, build line of defense and undertake the mission”

### Operation of board of directors

Company continuously perfect governance mechanism, optimize governance structure, formulated new Articles of Association as well as corresponding rules of procedure. It has established the “standardized and reasonable” governance framework “with clear rights and responsibilities” among general meeting of stockholders, the board of directors, the board of supervisors, the professional committees and the management. In November, 2021, corporate board of directors completed general election works, formed the 4th board of directors, and board of supervisors. In 2021, Company had called up 4 general meeting of stockholders, 3 meetings for the board of supervisors, 15 the board meetings, and 8 meetings of the professional committee meetings for board of directors, on which 92 proposals were deliberated and adopted.

### Development strategy



Corporate developmental strategies of “14th Five-Year”

### Compliance operation

CMEC has further implemented comprehensive compliance works, established and perfected the corporate compliance management system. On one hand, it subdivided requirements of related systems, revised Implementation methods for investigate and affix the responsibilities for illegal operation and investment, Management methods for export control as well as Implementation regulation for management methods for export control. It is keeping close attention to fields in with high risks of compliance. On the other hand, it regards compliance auditing as a proposed auditing procedure for auditing and registration of projects and contracts in order to conduct compliance examinations on enterprises to be included in the corporate list of qualified suppliers.

#### (I) Law-based enterprise governance

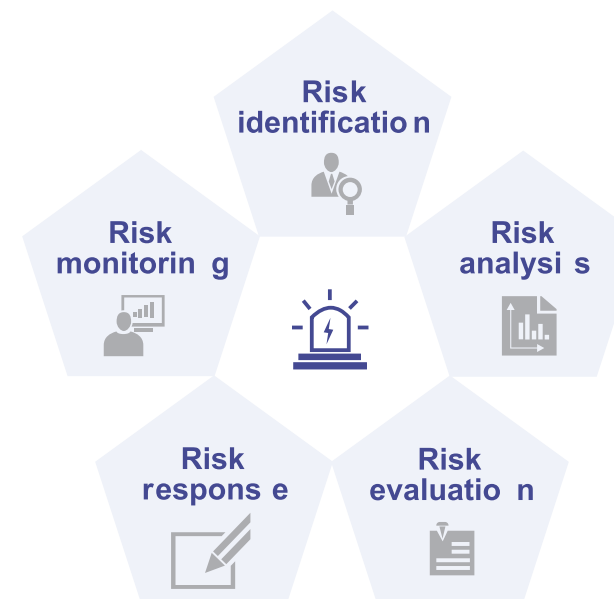
CMEC had thoroughly implemented the goal of building a “SINOMACH under the rule of law”, strictly governed, made decisions, and operated in accordance with the law, continuously innovated in legal services and legal management modes, and promoted the integrated construction of the company's legal system, legal capacity and legal culture, and created a good atmosphere for lawful and honest operation.



Company took the chance of anniversary of issuance of civil code, conducted activities of propaganda month with a theme of “Beautiful life & Accompanying with civil code” .

### (II) Risk management

Company has strictly implemented the national deployment of “comprehensively improving the ability to prevent and dissolve significant risk”, constantly optimized and improved the risk prevention mechanism and risk control system construction, strengthened the prevention supervision of operating, financing, investment, legal, environmental and social risks.



CMEC risk control procedures

### (III) Compliance management

Company has actively implemented CMEC Group’s Compliance Management Manual, established a multi-dimensional compliance propaganda and implementation system, incorporated compliance education into employees’ education and training plan, actively conducted various forms of legal propaganda, actually enhanced the compliance awareness of employees and cultivated the cultural atmosphere of governing enterprise by law and compliance operation through normal compliance training.



Conducting training activities at grass-root level of “Propagandizing legal governance (compliance) at grass-root level” series, holding special trainings on compliance propaganda and implementation of CMEC Group Compliance Management Manual and export control.



In 2021, Company was awarded with the “Prize of excellent legal team” by Commercial Law, an internationally known legal media.

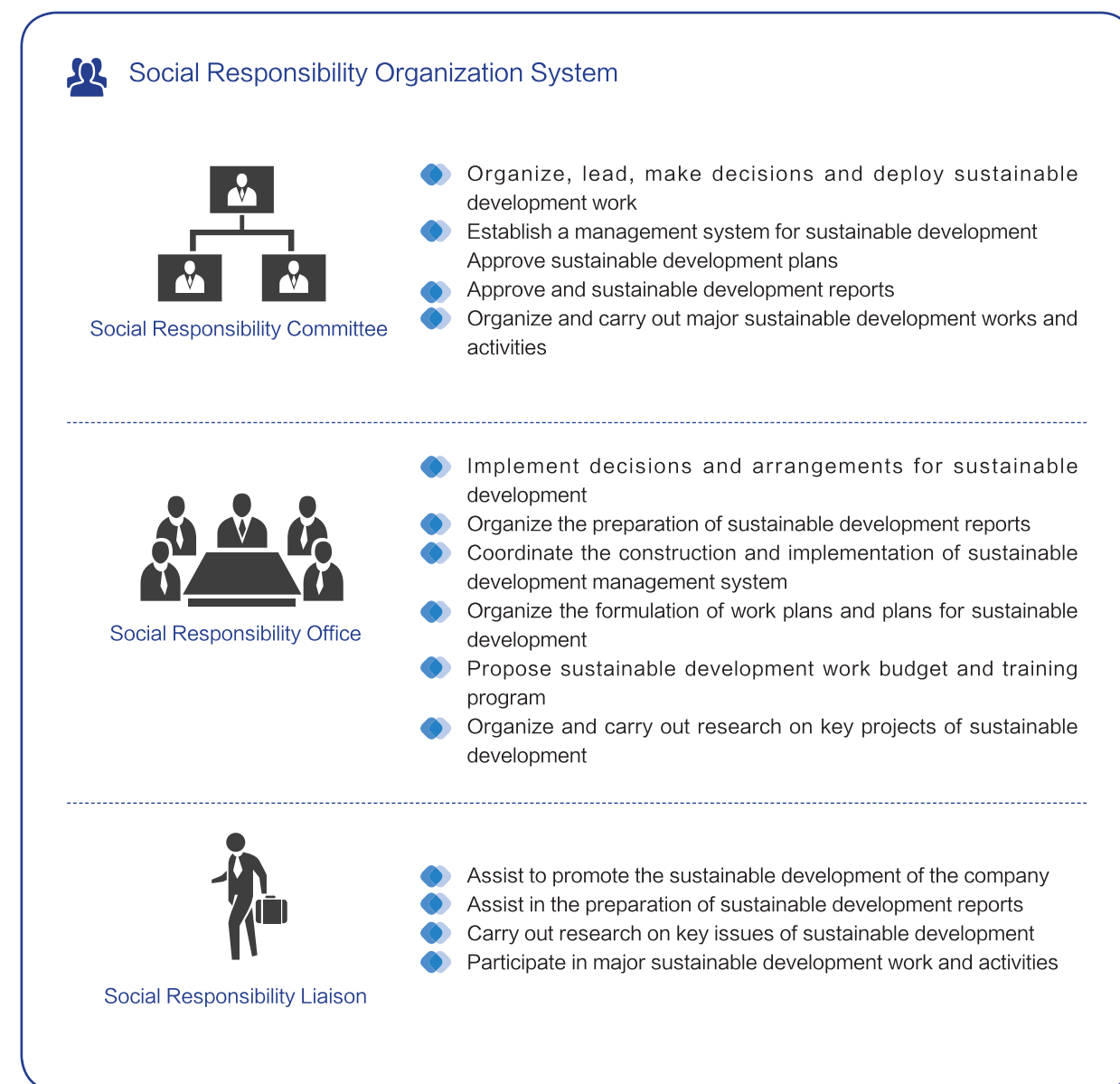
## Sustainable development management

As a leading enterprise in the international engineering contracting industry, CMEC is driving integration of the sustainable development idea into the whole process of corporate decision-making, business operation and functional management processes in accordance with the idea of “high standard, sustainability and benefit people’s livelihood” .

Total number of sustainable development awards obtained: 26

### Organization system

We set up a Social Responsibility Committee with the chairman of the board as the director, the general manager as the executive director, and the general managers of each functional departments and business divisions as members.



### Sustainable development management model

During business development, Company is utilizing its own advantages to carry out effective measures to actively responding to climate change, implementing green development concept, striving for the balance of economic, social and environmental development; strengthening responsibility communication and exchange, and creating a cultural atmosphere of sustainable development by improving the sustainable development management system, focusing on the development needs of local communities, strengthening community investment, and contributing to global sustainable development, thus making its contribution to realize the 2030 Sustainable Development Goals (SDGs) of the United Nations.



### Promote the sustainable development

We are continuously perfecting a sustainable development management system, improving sustainable management capacity construction, creating the form of responsibility communication, strengthening communication and cooperation with all walks of life and enterprises in all sectors, continuously enhance the transparency of the company's responsibility fulfillment practice, and driving optimization and improvement of the company's sustainable development.

Focusing on climatic changes, implementing strategies of “carbon peaking and carbon neutrality”



Participation in 2021 International Forum of Carbon Peaking and Carbon Neutrality Sponsored by China Chamber of International Commerce, All-China Environment Federation and Beijing Energy Conservation Low-Carbon Environmental Protection Industry Service Association.



Participation in round dialogue of round-table dialogue of Lancang –Mekong River Region and Global environmental governance sponsored by International Cooperation and Communication Center of Ministry of Ecology and Environment of the People’s Republic of China.



China-ASEAN environmental cooperation weekly conference sponsored by International Cooperation and Communication Center of Ministry of Ecology and Environment of the People’s Republic of China.

Training learning, enhance capability of responsibility fulfilment



Participation in training class for infrastructure project financing project and ESG cosponsored by China International Contractors Association and KPMG.



Participation in 1st International Engineering Risk Management Forum



The Project of Angola SOYO Power Plant is listed into 2021 typical cases for B&R synergistic interaction of pollutant and carbon reduction

The Project of Angola SOYO Combined Cycle Power Plant uses natural gas as main fuel to replace low-efficiency diesel power plant, which can reduce CO2 emission about 1MT per annum. After the power station went into operation, its operating conditions are favorable, and unanimously reputed by governments of China and Angola, as well as the society. President and governmental officials of Angola have investigated the power plant for several times, and gave a high appraisal to CMEC for high-quality completion of power plant construction and successful realization of production and operation.

In activities of 2021 Typical cases for B&R synergistic interaction of pollutant and carbon reduction collected by International Cooperation and Communication Center of Ministry of Ecology and Environment of the People’s Republic of China in combination with 12 institutions include Chinese Research Academy of Environmental Sciences, South China Environmental Science Research Institute of Ministry of Ecology and Environment of the People’s Republic of China, National Center for Climate Change Strategy and International Cooperation and so on, this project was chosen as one of 10 typical cases with a certain of typical, representative and promotional values in terms of pollutant and carbon reduction.



Case cover page



Project of Angola SOYO Combined Cycle Power Plant

Responsibility communication, create communication mode



Participation in the 5th Global CSR Summit sponsored by Global CSR Foundation



Participation in Protecting children’s rights and interests at new era sponsored by United Nations Children’s Fund(UNICEF)

**Joining in the UNICEF initiative of family friendly workplace**

In May, 2021, we actively joined in “China Propaganda Commemorative Activities” at 2021 International Family Day jointly organized by National Health Commission of the People’s Republic of China, China Population Welfare Foundation, and United Nations Children’s Fund (UNICEF), joined in activities for the UNICEF initiative of family friendly workplace.



**Performance demonstration. Social recognition obtained**



Field awards meeting (online)

CMEC is obtained with International SOS “Award for Best Sustainable Development”  
 In October, 2021, CMEC won the second place of International SOS “Award for Best Sustainable Development”, which was the second prize obtained after CMEC got the second place of “Award for Best Medical Treatment in Remote Areas” issued by International SOS in 2018.

**CMEC was honored as a “Leading enterprise of social responsibilities” again**

In 2021, CMEC was honored as a “Leading enterprise of social responsibilities” chosen by China International Contractors Association again, which was the highest evaluation level of industry obtained by the Company in three consecutive years. 16 enterprises among more than two thousand Chinese International contractors obtained such honor.

In the process of fulfil overseas social responsibilities, CMEC is actively carrying out works of corporate social responsibilities from stressing resources saving, making well environmental protection, protecting rights of employees, training local talents, conducting localization operation, realizing mutual development, improving local livelihood and several other aspects.

Company obtained the industrial prize at highest level, which represented the high recognition of stakeholder on CMEC social responsibility works.

**Management of stakeholders**

We had adhere to the importance report principle of ESG information disclosure, and, through normalized communication and exchange, identified the sustainable development issues concerned by stakeholders, screened and analyzed the substantive issue on the company’s sustainable development in 2021 from “importance to the company” and “importance to stakeholders”, and, based on the issue evaluation results, made particular disclosure of substantive issues in the sustainable development report, so as to continuously enhance the influence of the company’s sustainable development report information disclosure.

We fully performed the communication with and response to the stakeholders based on the consideration of expectations and appeals of shareholders, investors, government, customers, partners, employees and other stakeholders, aiming to use high quality report to respond to stakeholders’ concerns and expectations, enhance mutual understanding and trust, and create a sustainable future.

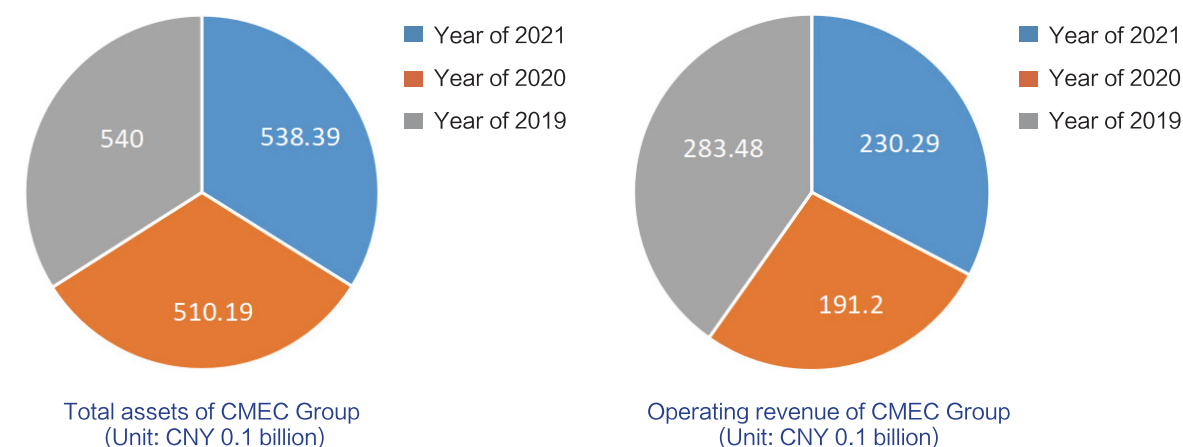
**Sustainable development practices**

**New development pattern to build sustainable infrastructure**



**(I) Strive Ahead, Develop Tenaciously**

In 2021, all cadres and employees of CMEC are of the same mind, accurately distinguish variations, scientifically cope with variations, actively seek variations, drive with scientific innovation, push diversified development of businesses, overcome challenges brought by pandemic and international situations, maintain a better market activity, thus realize a stable development of operation.





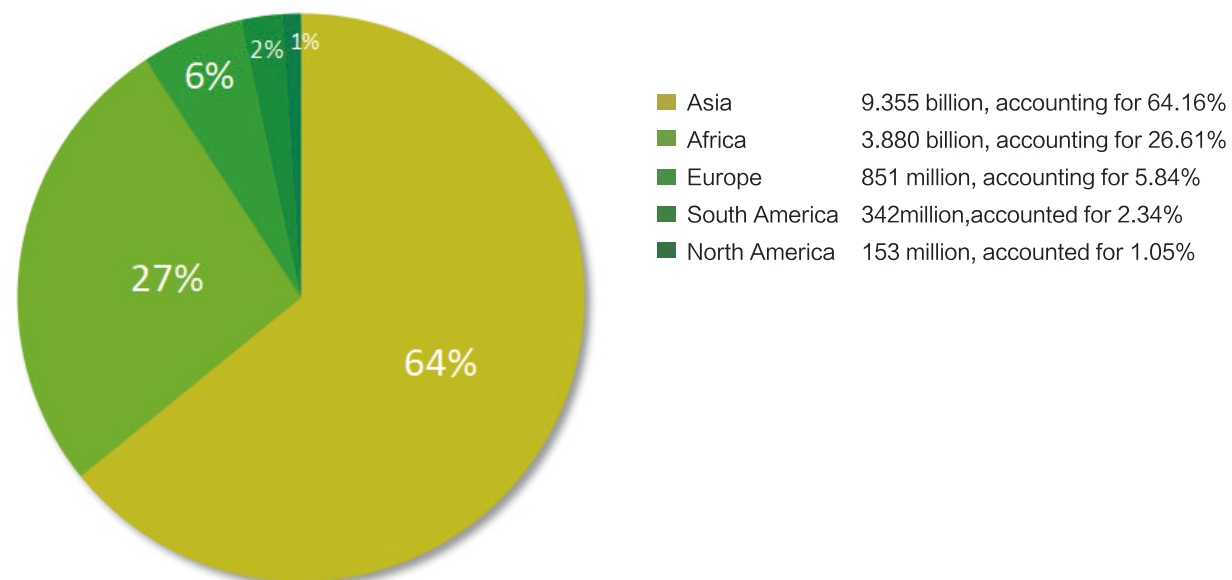


2022 Operating working conference

### Efficient operation and management

#### International engineering business Stabilize bases

- ◆ Adjust business patterns, establish an overseas procurement platform and EPC management platform, strengthen construction of professional capability, expand overseas markets to more than 160 countries and regions in the world.
- ◆ Form a large-scale market with a contract value of over USD 500 million in 8 countries include Pakistan, Angola, Argentina, Iraq, UAE, etc.



Regional distribution and proportion of income from international engineering contracting business of CMEC in 2021

### Handover of first unit project for Maldives Power Distribution Projects

In July 17, 2021, the first unit Project for Phase II Power Distribution System Hulhumale Island in Maldives was successfully handed over to Owner. Construction of this part occurred in the period of fourth pandemic outbreak in Maldives, the Project department overcame both pressure of pandemic prevention and production, coordinated with local governments to give priority to solve power demand of about 7,000 residents, which obtained a high recognition of Owner, governmental departments and local residents. As an important livelihood project of Maldives government, this project will provide power supports to Phase II of Hulhumale Island, meet power demand of housing, commerce and other supporting facilities for over 100,000 people, provide a solid guarantee for local economic construction and social livelihood.



Project of Phase II Power Distribution System for Hulhumale Island in Maldives

### Uruguay 500 kV Transmission and Transformation Ring Grid Closure Project

CMEC signed the EPC contract for the project of “Uruguay 500 kV Transmission and Transformation Ring Grid Closure Project” on May 31, 2021. This project spans over 5 provinces in the north of Uruguay, will become the largest infrastructure project in Uruguay undertaken by Chinese enterprises. This project accounted for about 6.6% of the total capacity of existing HV power transmission network in Uruguay, 32% of the total capacity of 500kV power transmission network. After completion of project, it will undertake the important tasks of power transmission in the north of Uruguay, enhance the extensive and long-distance consumption capacity of power grid, improve the power supply status quo of power grid, and promote coordinated development of local economy.



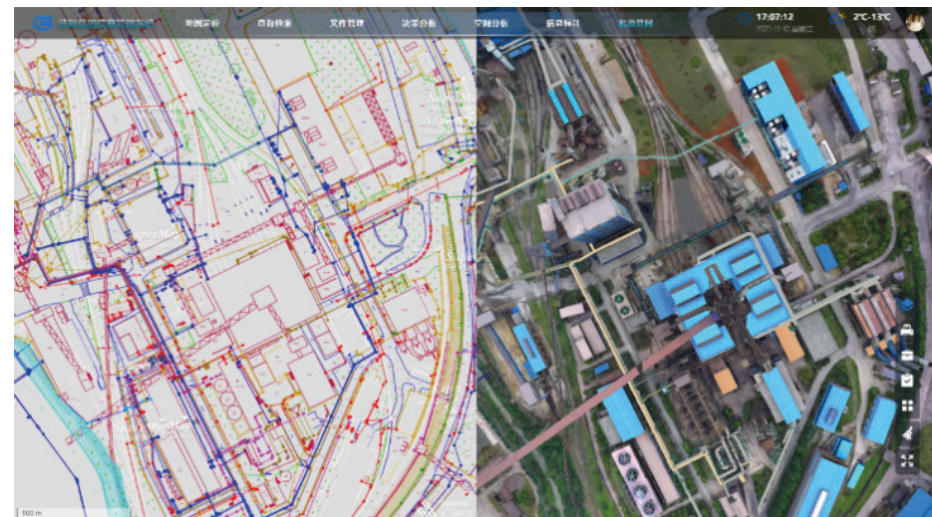
Signing ceremony for the Uruguay 500 kV Transmission and Transformation Ring Grid Closure Project

Trade and service business transformation and upgrading

- Continuously promoted the pace of “4+2” business merge inside the block. Some core subsidiaries advanced pilot testing, conducted system integration through “comparing systems, selecting the best one”, organized project-oriented inter-enterprise teams project to rationally allocate resources, integrated businesses and people
- Core subsidiaries actively utilized internal resources of group, coordinated to expand domestic and foreign businesses, and made achievements.
- Progression is made in innovation of business model. The Shunyi Roofing PV Project cooperated by CMECINT and SINOMACH subsidiaries was successfully signed and executed.
- Breakthrough was made for core products in this block. The first wheel track independently designed by CMIPC gained the first order from Chile Copper Industry company.

Design and consulting add new impetus to development

- Improve weak links, assist development of both institutes (CMIE and JK institute). Company allocated investment service manager to help both institutions to dock technique, channels and other resources with corporate financing, management and other resources, drive the construction progress of S&T engineering company.
- Organize meetings for promoting and exchanging technologies and new products and for experience sharing. 13 meetings for technical exchanging in total were convened, which provided supports to technical review and technology for corporate projects. Corporate technical review was conducted for 48 times, exemption for technical review was applied for 23 times. Technical review experts were recommended for 44 projects.
- Established technical centers for power transition and transformation, for solid waste, and for water affairs. These three centers and the existing technical center for PV and Energy storage are providing technical supports together to development and execution of related corporate businesses, and play the role of “engineer and brainpower”.
- In 2021, large-scale technical exchange and project experience sharing were organized for 15 times, specific technical exchanges for 20 times.



The project of topographic revision and upgrade of general drawing information management system of Hunan Valin Lianyuan Iron and Steel Co., Ltd. undertaken by JK Institute

Put forth effort to cultivate “X” businesses

- Continuously explore new chances and models for “X” businesses, create new growth points for businesses. Depending on four technical centers, successively launched PV and energy storage product packages, hydrogen filling product packages, compressed air energy-storage products as well as other technical resources.
- Technical propaganda, implementation and exchange around new energy, new capital construction technical solutions, development of “carbon peaking and carbon neutrality” markets and other topics were carried out for many times, which effectively enhanced research, development, application and promotion of new technologies, and improved the role of leading and supporting role of science and technology to businesses.
- Actively screening and precisely exerting force to drive the marketization of achievement in scientific research. Smart eagle, underground parking system and other achievements in scientific research funded by corporate scientific research fund have proprietary intellectual properties, and higher technical contents. Active achievements were made in their market development.

Scientific and technological innovation has yielded fruitful results

Company is continuously increasing investment in S&T innovation, promoting construction of Innovation platform, research and development of major projects, formulation of standards and norms, as well as other works. It has newly established a Technical Research Center for Rotational Dynamic Engineering, a Technical Research Center for Advanced Battery and Materials Engineering”, “Center for S&T Consultation and Evaluation and Transformation of Achievements”, “Xi’ an Technical Research Center for Digital City Engineering” .

- Number of obtained patents: 96
- Number of gained copyright for registered software: 32
- Awarded with 15 prizes for excellent consultation, or excellent survey and design at provincial or ministerial level, of which, 3 are first prizes.
- Awarded with 2 prizes of 2021China Machinery Industry S&T Award issued by China Machinery Industry Federation.
- Awarded with 3 prizes of 6th Science &Technology Awards issued by Shaanxi Civil Engineering and Architecture Society, 6 prizes for S&T Advancement Awards issued by Shaanxi Society for Surveying, Mapping and Geoinformation, 1 prize of Hunan Provincial Scientific Advancement Award
- In 2021, 96 patents in total were obtained, 18 prizes of Science &Technology Awards at provincial or ministerial level/association, 32 copyrights for registered software.
- In terms of formulation of specifications and standards, 26 standards for which CMEC was the editor in chief or whose formulation CMEC participated in were added.



Several science & technology awards obtained (a portion of)

**Assist to solve “cut-throat” technologies in manufacturing industry in China**

The Project of “Multi-stage Rotating Turbine Flow/Cooling Integrated Test Bed” with the Chinese Academy of Sciences undertaken by CMEC is one of series experimental tables for efficient low-carbon gas turbine experimental facilities, “12th five-year” and “14th five-year” national major S&T infrastructure, is a scientific and technological strategic project in China. After completion, it will provide supports to development of gas turbine technology and industry in China.

**Establishment of digital technical platform and application system**

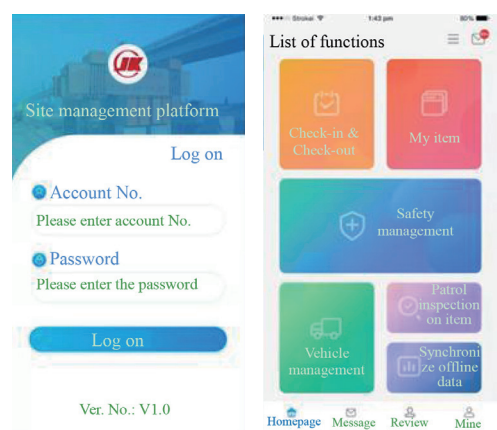
The digital technical platform and application system developed and designed by Shaanxi Jikan Engineering Inspection Consultation Co., Ltd., an affiliate of CMEC can effectively enhance both timeliness and flexibility of project management.

By means of project location, real-time upload of field video data and other means, whole-process visual management can be realized at PC end and mobile end in the project testing site.

Facial recognition and other functions to real-time control on safety disclosure and situations of safety patrolling, further strengthen field safety disclosure and safety patrolling works, enhance the safety awareness of team members, and reduce safety risks.

Realize real-time monitoring on entry and exit, transfer of equipment, form circulation ledger of field equipment, ensure that there isn't any idled or lost equipment or similar phenomena, thus reduce engineering costs, and enhance the utilization ratio of equipment.

In 2021, the Project of “Engineering Testing Management System” was evaluated as “2021 Excellent application case for Digitalization of International Engineering” by China International Contractors Association.



APP model at mobile end, which can realize a whole-process visual management on project site



APP model at mobile end, which can realize a whole-process visual management on project site

**Diversified financing to assist business development**

CMEC enhance the level of financial diversification, actively enrich financial model, widen the financial channel, enhance the control level of capital risks, assist business development.

**Enhance the competitiveness of financial diversification**

- Establish a library of international financial institutions and a library of international insurance institutions
- Organize high-level matchmaking meetings, “two high and one emphasis” new policy publicity meeting and quarterly business matchmaking meetings to drive solution of financing
- Flexibly establish a financing structure by means of “Sinosure insurance for buyer’s loan + Pure foreign investment bank consortium”, “Refinancing for seller’s loan” and etc., breakthrough in financing works for overseas major projects.
- Optimize the credit granting mode of Company and the credit granting mode of overseas platform company, explore customized letter of guarantee services, supply chain financing and other products together with financial institutions, thus meet corporate business demands.
- Actively do well post-loan and post insurance works for project, realize closed-loop management on financing

**Enhance the control level of capital risks**

- Formulate management methods for Online banking business, enhance the level of capital risk management
- Enhance fine capital management, dynamically master stock of local currency of project site, design customized consumption schemes, change “stock” to “increment”, enhance the capital fluidity

**Enhance the level of forex risk management**

- Enhance the level of forex risk management, actively manage forex risk exposure, reduce influence of exchange fluctuation over corporate operating performance.

**Enhance the financing capacity of domestic projects**

- Launch mechanism of domestic capital consultation mechanism, assist performance of domestic businesses, formulate related standards, guarantee corporate capital safety.
- Conduct specific investigation on bonds, ABS/ABN, REITS, debt investment plan for insurance capital, financing lease and other financing products, engagement with related agencies. Establish a normal communication mechanism.



UKEF Informational session

**Financing agreement signed for the Bahrain Sitra East Affordable Housing Project**

On August 19, a financing agreement for Phase I of Bahrain Sitra East Affordable Housing Project was signed between Company and Beijing Branch of China Zheshang Bank. This project is CMEC's first project for financing by means of special insurance mode in the gulf region. Signature of agreement stands for the financing closure for the project.



Signing ceremony



On December 21, 2021, a financial agreement for the Nikopol 200MW Photovoltaic Buyer's Loan Project in Ukraine was signed between Company and Bank of Shanghai, which stands for financing closure of project

**Favorable development of characteristic businesses**

Facing with challenges brought by COVID-19 pandemic, CMEC is continuously promoting development of engineering logistics and other characteristic businesses on the basis of consolidating traditional advantageous businesses.

**Breakthrough obtained in new markets and fields**

In 2021, we had actively practiced quality co-construction of "Belt and Road", plunged into the "carbon peaking, carbon neutrality" and other strategies, and gained several breakthroughs in business innovation. In terms of new markets, new markets in Uruguay, Russia, Guinea, Peru, Portugal, etc. were successfully exploited. In terms of new fields, hydrogen production, energy storage, agriculture, chemical and other new business fields have been successfully expanded. Of which, the Pingdingshan Compressed Air Energy Storage Power Station Project has realized a breakthrough in the business field of new-type energy storage; the Hydrogen Production Project of Shanxi Pengwan Hydrogen Port is an important breakthrough in the field of hydrogen production in domestic engineering contracting markets.



An EPC contract for Ye County 100MW/800MWh Advanced Compressed Air (Salt Cavern) Energy Storage Project in Pingdingshan was co-signed between CMEC and CMEC Wuxi Complex, and Shengguang Energy Storage Co., Ltd.

**Engineering logistics**

We have 30 subsidiaries, which can meet heavy-cargo transportation, transportation under complicated conditions, combined transportation and other requirements for various engineering projects

**Successful execution of transportation for Wind Power Project in Kipeto, Kenya**

CMEC Comtrans International Co., Ltd. has successfully executed the port-to-door through transportation project for 60x1.7MW Wind Power Project in Kipeto, Kenya. This project has a total installed capacity of 102MW, and 60 sets of GE1.7-103 turbines. The transportation weight of main transformer is 135t. The Maximum diameter of tower is 4.85m. The 50.2m long blade is the longest individual cargo received by Mombasa Port. This project created several historic records for engineering logistics executed in Kenya. 60 sets of wind turbine equipment for this project were shipped by six ships, 10 set of turbines per ship. The shipment interval of each ship was about 25 days.

Difficulties encountered during execution of project and their solutions:

Difficulties encountered	Solutions
Influences over heavy equipment transportation brought by poorer road conditions of port roads and interprovincial highways	Meticulous measurements and analyses were conducted on short transfer routes in port for many times, continuously improve and optimize transportation scheme. More than 10 times of road surveys were conducted in two years. Finally, consistent rectification opinions reached with Kenya Ports Authority, Kenya National Highways, Kenya Electricity Regulatory Authority and other related departments. Prior to projection execution, through transportation was simulated to lay a solid foundation for successful transportation of project.
Special transportation trailers for large wind power projects were unavailable in Kenya	12 trailers for blade transportation, 8 low-bed trailers for tower transportation as well as 4 hydraulic modular trailers were specially customized to ensure completion of transportation of 4 sets of wind turbines. In 2 months prior to commencement of inland transportation in Kenya, local drivers and trailer operators were trained for know-hows with regard to safety, driving techniques, trailer operation, etc. for more than one month. All of them were allowed to take their posts after they were qualified through examination.
As for road transportation for out-of-gauge cargoes, local roads are two-way single-lane roads. The total average width of two-way lanes is only 6.5m. However, the width at widest bottom section of tower is 4.6m, traffic flow on road is bigger.	The length of each fleet adopted was less than 100m. One escort vehicle was provided at head or rear, warning lights, batons, walkie-talkies were equipped, in addition, armed polices were assigned for escorting. Four-directional HD cameras were equipped on escort vehicles to record the whole transportation process. The through transportation for out-of-gage cargoes required three days. Two special parking points were provided in midway for vehicles of this project to parking overnight.
With professional and efficient executive capability, through 209 days of incessant transportation, transportation tasks of this project were finally completed, and good reputations from owner were obtained.	



Wind tower during transportation



Research, develop and manufacture core technical equipment product package for hydrogen fueling station

China Machinery & Equipment (HK) Co., Ltd. cooperated with Hefei General Machinery Research Institute Co., Ltd., a subsidiary of SINOMACH, as well as leading manufacturers of hydrogen compressor industry, researched, designed and commissioned to manufacture one unit of 45MPa,500Nm<sup>3</sup>/h skid-mounted hydrogen compressor equipment, developed the control system of equipment and online monitoring system, researched, developed and manufactured product packages for core technical equipment for hydrogen fueling station, which were used for the development of HP hydrogen compressor technological process, control and monitoring systems. The online monitoring system researched and developed for complete equipment of skid-mounted hydrogen compressor have functions of remote real-time monitoring, data analysis, alarm statistics and other functions, which will facilitate workers to learn about in-service operating conditions of diaphragm compressor, adopt targeted technological adjustment, daily maintenance, repair and other measures on diaphragm compressor in order to ensure that various performance indexes of diaphragm compressor in the process of daily operation meet requirements, monitor the operating conditions of equipment on a real time basis, and conduct statistical analysis on failed equipment and facilitate timely repair.

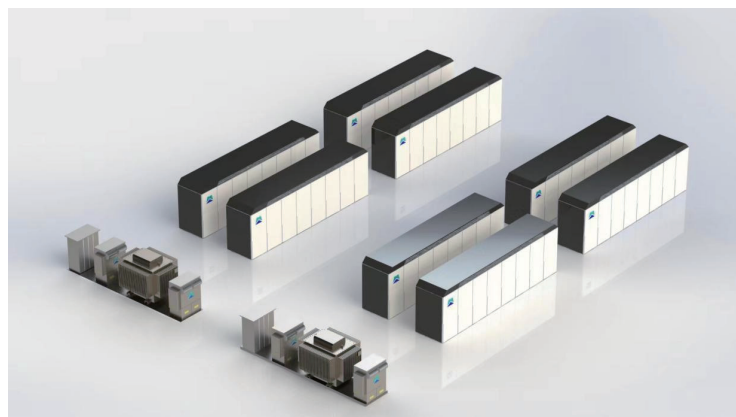


Currently, domestic design of 45MPa hydrogen compressors is realized in China, but their reliability needs to be enhanced, valves and other key parts are still depending on importation. To this end, CMEC will further conduct complete development works of HP skid-mounted hydrogen compressors at the level of 90MPa and 200Nm<sup>3</sup>/h through tackling key problems regarding core equipment at the level of 90MPa on the basis of iterating and optimizing 45MPa skid-mounted hydrogen compressor equipment. Research and develop reliable and safe 90MPa HP hydrogen compressors, valves and other core equipment, as well as provision of necessary safety monitoring system, are the only way which must be passed for realize domestication of facilities for 70MPa hydrogen fueling station, and effectively reduce the costs of hydrogen fueling. Research, development and domestication of 90MPa HP hydrogen compressors and its skid-mounted products can improve Chinese weak links in this field, reduce the gap between our brands and foreign main brands include Hofer, Howden, PPI, PDC, etc..



Research and develop electrochemical energy storage product package

China Machinery & Equipment (HK) Co., Ltd. cooperated with Tianjin Research Institute of Electric Science Co., Ltd., to research and develop “product package for research, development and manufacture of energy storage system and equipment”. Its main contents include: complete design works of battery clusters in accordance with specification for mainstream batteries at present; complete authentication works of battery clusters; complete design works of BMS; complete design works of energy storage units of container batteries; complete safety evaluation and third-party demonstration works, etc. for the energy storage unit of container batteries. Design of electrochemistry energy-storage equipment and industrial research and development will be conducive to breakthrough of key core technologies, quicken up realization of S&T self-reliance, improve weak links of industry chain and supply chain, optimize national economic layout, implement national policies to ensure important national strategic mission.



(II) Join hands to achieve a win-win cooperation

CMEC focused on customer needs and constantly improved product quality and service capability; strengthened supply chain management, promoted the healthy development of industrial chain and supply chain; participated in industry interaction and exchange, helped to assist coordinated development of industries and enterprises.

Cast the quality of craftsmanship

CMEC had strictly abode by the laws and regulations in both China and the project places, complied with the international practice and the requirements of the contract and relevant standards and norms, strengthened quality management, made high-quality projects.

Project implementation to overcome difficulties

- ◆ By the end of 2021, the company had a total of 79 overseas projects under execution, including 14 completed projects such as Wujiang Hydropower Station in Laos, Jaffna Water Supply Project in Sri Lanka, Power Transmission and Transformation Project in Cote d'Ivoire, Power Transmission and Transformation Project in Ecuador, and the Hospital and Supporting Projects in Zambia.
- ◆ The Thar Coal Mine Operation and Maintenance Project in Pakistan overcame the effects of COVID-19 and extreme weather, realized basic stability of production, powerfully guarantee normal operation of power station.

Optimization of management by capacity building

- ◆ Enhanced S&T application in business, the remote intelligent control system for power station and power station big data center developed by Harbin Power System Engineering and Research Institute Co., Ltd. of CNEEC was completed and went into service.
- ◆ Conducted “localization” operation on the system of “quality, environment, occupational health and safety”, enhanced management improvement.
- ◆ Strengthened design management, gradually built a competitive project management system, and constantly improved the level of profitability and market competitiveness

Quality management and quality improvement

- ◆ With the activity theme of “sharing quality responsibilities, jointly create quality achievement, sharing quality and benefit”, organize and implement activities of 2021 “Quality Month”. Enrich activity form and contents of “Quality Month”, lead all members to participate.

Quality service Customer satisfaction

CMEC had focused on customers’ expectations and demands, paid attention to continuous communication and exchange with customers, actively improved customer service throughout the whole life cycle from project negotiation, construction and operation, and established customer information protection system to protect customer information security and privacy; improved the after-sale service system of EPC projects, optimized the customer feedback mechanism, safeguarded the rights and interests of customers, and enhanced customer satisfaction.

**Overcome difficulties and finish ahead of schedule to gain the owner's affirmation**

The 230kV Wujiang Hydropower Station Phase II Power Transmission and Distribution Project in which the project was the general contractor, is an important part of the regional power grid in the northern part of Laos. The transmission lines of the project spans the mountains and virgin forests of northern Laos, where the terrain is treacherous and the climate is harsh. All members of the project team overcame the difficulties of scattered locations, abundant rainfall in rainy season and inconvenient material transportation, and actively and steadily promoted the orderly progress of the project. The project was completed 7 months ahead of schedule



Group photo with Owner

Earlier completion of Wujiang Project provided powerful guarantee to stability of power supply to the north of Laos, and brought great convenience to the production and life of local people. The company's strength in project management as well as its high quality project quality have been fully recognized by the Lao government and Lao owner.

**CMEC Stadium assisted Cameroon to successfully held Africa cup**

In January, 2021, Cameroon held African Nations Championship. As the hosting venue for Africa Cup of Nations, both Bafoussam and Limbe stadiums in Cameroon undertaken by CMEC hosted 16 games one by one. During the competition, corporate technicians assist and coordinate Ministry of Sports to ensure the smooth operation of games, which obtained a favorable reputation from Cameroon government and Confederation of African Football. NARCISSE MOUELLE KOMBI, Minister of Ministry of Sports, specially send a letter to CMEC, and expressed thanks to CMEC that: "We are very grateful to your specialty and patience represented during the competition.... we are ready for cooperate with you for followup projects..." as the most important participant in infrastructure construction of Africa Cup, CMEC is reputed as the partner mostly trusted by Cameroon government.



Bafoussam Stadium in Cameroon

**Sustainable industrial chain and supply chain**

CMEC strengthened supply chain management, adhered to responsible procurement and responsible subcontracting, promoted the capacity building of suppliers and subcontractors to fulfill their responsibilities, contributed to the sustainable development of the industry.

- ◆ Cooperative suppliers: 1,874
- ◆ Overseas suppliers: 721

**Strengthen supply chain management**

CMEC issued and strictly executed Management methods for suppliers of engineering supporting projects, Management methods for procurement of complete engineering businesses, Management methods for overseas field procurement of complete engineering projects as well as other supplier management systems; established a central procurement platform, strengthen supply chain management; formulated Regulations on subcontracting, procurement, clean construction and supervision works of supporting engineering projects, to prevent risks of procurement and honesty. Up to December 31, 2021, qualified suppliers in China is 769 in total, qualified suppliers in foreign countries is 192.

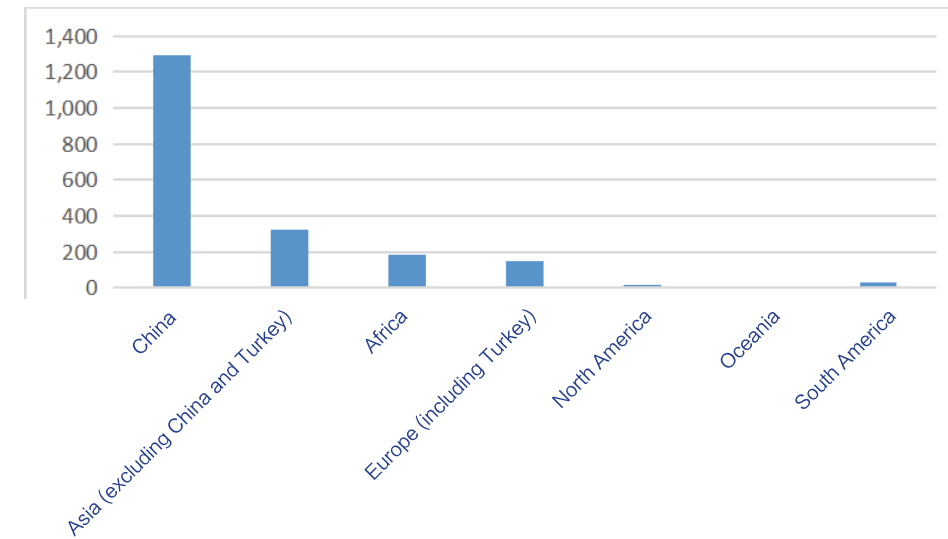
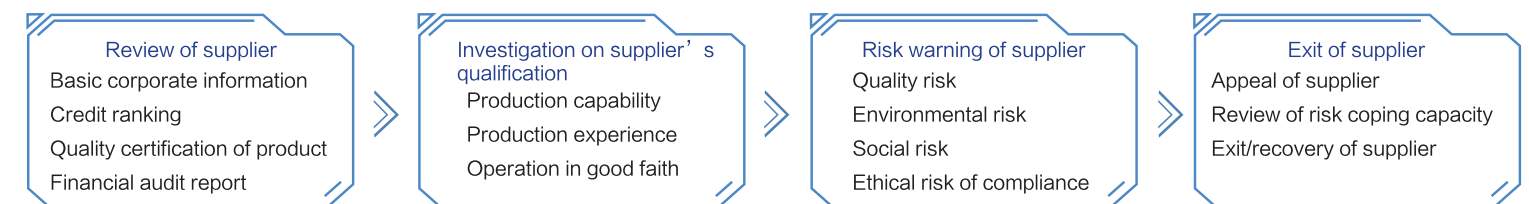


Table for regional distribution of suppliers



Key points for supplier management

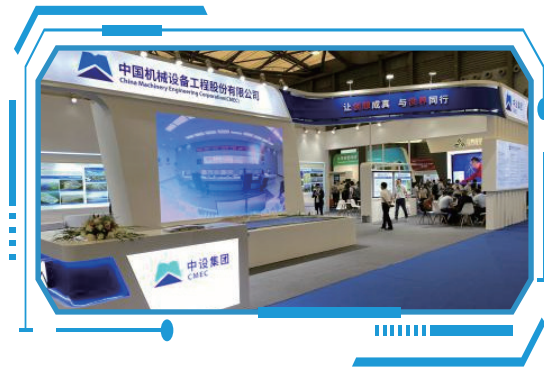
**Active fulfilment of industry responsibilities**

Company is actively participating in forums, exhibition and other activities organized by governmental competent departments, trade association or guilds, strengthening communication and exchanges, assist industrial development.

In 2021, industrial activities participated by company (a portion of)



May 12~13, participation in 2021 China International Contracting Development Meeting and 2021 China International Contracting Development Forum



June 3, participation in SNEC 15th (2021) International Solar PV and Intelligent Energy (Shanghai) Exhibition



July 22 - 23, participation in 12th International Infrastructure Investment and Construction Summit Forum



September 26, participation in 2nd China-Africa Economic and Trade Expo & China-Africa Economic and Trade Cooperation Forum



October 15, participation in the Language style competition for "Star of translators" sponsored by China International Contractors Association

**Adhere to win-win cooperation**

Company continued to deepen relationship with partner, actively engage with leading enterprises of industry, local governments, financial institutions etc.. It has signed a strategic cooperative agreement with China Railway Construction Corporation International Co., Ltd, China Electric Power Planning & Engineering Institute, Sinoma Energy Conservation Ltd, Sinopec Shanghai Engineering, Three-Gorges International, China Electric, and other enterprises, as well as local governments of Dehong state in Yunnan, Weifang city in Shandong, etc., thus drive win-win cooperation.

**Government-enterprise exchanges**



July 30, Chairman Bai Shaotong interviewed with the delegation led by Mr. Bai Sidi, Hungary Ambassador to China, both parties conducted deep in-depth exploration on for further strengthening information communication and cooperation from all aspects in multiple fields



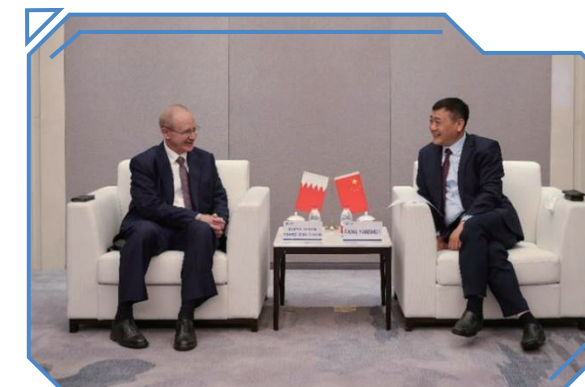
May 11, the delegation of Zhang Yujing, the President of China Chamber of Commerce for Import and Export of Machinery and Electronic Products, Zheng Chao, Vice-President and Chairman of Expert committee, Liu Chun, Vice-president, etc. came to Company to investigate and guide works, and discussed in depth with Fang Yanshui, General Manager and other corporate leaders



August 2, General Manager Fang Yanshui led a delegation of Mr. Dur Deev, Turkmenistan Ambassador to China



November 4, Chairman Bai Shaotong interviewed with the delegation led by Emin Onen, Turkey Ambassador to China



December 3, Fang Yanshui, General Manager, interviewed with the incoming delegation led by Janal Muhammad Adan Shehu, the new Ambassador of Kingdom of Bahrain to China

Enterprise–enterprise cooperation



May 11, General Manager Fang Yanshui, interviewed with the incoming delegation led by Fan Gongcheng, Vice-General Manager of State Grid Integrated Energy Saving Service Co., Ltd.



May 17, General Manager Fang Yanshui, interviewed with the Delegation led by Zhang Jinquan, Global Executive Vice-President, Person in charge of China Region of Hitachi ABB Power Grid Investment (China) Co., Ltd.



September 17, General Manager Fang Yanshui, interviewed with the delegation led by Wang Wenzhong, Vice President of China Railway Construction Corporation Co., Ltd.

Bank–enterprise cooperation



March 12, 2021, Company conducted project docking with the financing team of China Minsheng Bank, to drive cooperation of commercial projects



June 16, 2021, Company held a senior docking meeting with Sinosure, signed A Key Points for 2021 Special Business Cooperation, help corporate business development

University–enterprise cooperation



Jointly construct an overseas practice basis with Tsinghua University

CMEC Group jointly built an overseas practice basis with Tsinghua University. 10 doctoral students were employed in engineering projects in Argentina, Sri Lanka, Serbia, Laos and Mongolia to participate in compulsory social practices.



Student steeled herself in working in Sri Lanka Power Station



New developmental mode, Contributing sustainable ecological civilization



(I) Green management to lead the development

Company is strictly observing national laws and regulations as well as related policies with regard to energy-saving and environmental protection, actively cope with climatic change, promoting construction of environmental management system, comprehensively identify environmental factors and environmental management risks, prevent environmental risks.

Company is carefully seizing energy saving and biological and environmental protection works; encouraging conditional organizations to increase investment, promoting advanced technologies, transforming lagging production equipment and production technology; seizing propaganda of energy-saving and environmental protection in order to create a favorable atmosphere.

(II) Setting a benchmark for green projects

Company is taking “Create an internationally leading integrated service provider for engineering contracting and industrial development” as the vision, centering on enhancement of energy utilization efficiency, reduction of pollutant emission and increase of output efficiency of resources, based on transformation of economic growth mode, adjustment of economic structure and quickening technical advancement, providing guarantee through perfecting policies and systems, enhance stressing, strengthening management, deepening reformation and innovating mechanism, practising the conception of green and environmental protection and walking the way of saving and clean development during development, construction and operation of project, thus realize the goal of establishing a resource-saving and environmentally-friendly enterprise.

Schedule of 2021 Greenhouse gas emission (Scope of disclosure if CMEC Group and its subsidiaries in China)

Direct emission amount of greenhouse gas[Total consumption of direct energy (such as fuel oil, coal etc.) of CMEC Group and its subsidiaries in China multiply with the CO2 emission factor of corresponding energy]	12,821 tons
Direct emission density of greenhouse gas[Direct total emission amount of greenhouse gas of CMEC Group and its subsidiaries in China divided with operating revenues (calculated in 10k CNY)]	0.0058 ton/10k CNY



**Construct a sludge station, Preserve water resources**

To effectively solve concentrated suspended matters and organic matters contained in sludge water of sedimentation tank of water plant, or in backwash waste water of filter chamber, water pollution and other issues, CMEC designed and established two sludge stations for No.1 Luanda water supply system in accordance with local standards of Luanda, Angola.

As the main partner of Luanda water supply company, CMEC Group has successively contracted construction of Phases I, II & III water plants of No.1 Luanda water supply system. It has a total water supply capacity of 210,000 m<sup>3</sup>/d. It provides clean domestic water to nearly 2 million citizens in capital, improves living quality of Luanda people.

After completion of these two sludge stations, it is able to recycle backwash water of 4,000m<sup>3</sup> filter with relatively lower silt content, meanwhile, process sludge water of sedimentation tank, thus reduce secondary pollution of BENGUO river, avoid silt accumulation on river bed caused by direct discharge of sludge, ensure sanitation and safety of domestic water for downstream residents.

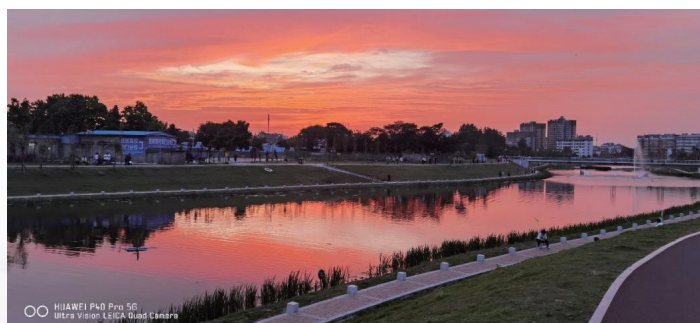


Phase III Project of Luanda Gandelabro Water Plant in Angola – Sludge Disposal Station

**The project of river water environmental improvement assisted improvement of local living environment**

The EPC+O General Contracting Project for Nancheng River Water Environmental Improvement in Dingyuan County, Anhui Province undertaken by CMIE, is a local livelihood project. The total length of this project is 2,600m, design width of riverway is 35m, designed water depth is 2.1m, water area is 78,000 m<sup>2</sup>, volume of water body is about 156,000 m<sup>3</sup>.

After completion of this project, it has immensely improved local living environment, and changed the stinky ditch known in the past to the scenic belt along the river at present. This comprehensive treatment has substantially reduced pollutant emission in the region, eliminated black and stinky water body, driven further improvement of ecological civilization in Dingyuan, provided important help to general requirements of heavy battles against pollution prevention and control.



Phase III Project of Luanda Gandelabro Water Plant in Angola – Sludge Disposal Station



Project of Xiangfang Village Water Purification Station in Nanjing City, provides 100,000 tons of quality clean water to internal Qinhuai River in every day



The project of Ecological Governance on Honganshi Coal Tailings Ecological Management in Yiyang City, Changsha City, Hunan Province, which assists solution of environmental pollution issue of waste water, waste residue and gas of mine

**(III) Clean energy contributes to environmental protection**

CMEC is actively practising construction of green “Belt and Road”, promoting international cooperation of water power, solar energy, wind power and other clean energy projects, make full use of own advantages, actively conduct domestic green energy and environmental protection businesses to serve national strategies of carbon peaking and carbon neutrality.

**Pakistani N–J Hydropower Project**

N–J Hydropower Project is generating power through tunnel diversion. Its highest waterhead is 420m. It is equipped with 4 units of mixed–flow hydrogenerators with a total installed capacity of 969MW. The annual generating capacity of project is about 5.15 TWh, which accounted for 12% of hydropower generating capacity in Pakistan, which can solve the issue of power shortage suffered by 15% Pakistani population.

The N–J Hydropower Project first created the application case for high waterhead mixed–flow hydrogenerator units in the world. CMEC conducted technical innovation in terms of 525kV jointless cable technologies, application of new–type sluices in tailwater maintenance of turbine and other aspects, which effectively solved technical difficulties of project, and ensured the successful advancement of project.



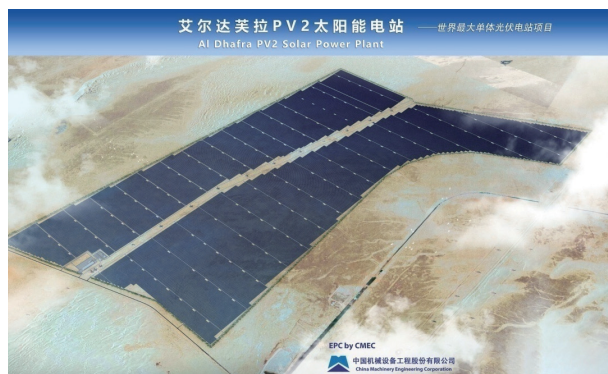
Pakistani N–J Hydropower Project

Photovoltaic power Green development

Al Dhafra PV2 Solar Power Plant Project in United Arab Emirates is located in the suburb of Abu Dhabi city, UAE. The installed capacity at DC side is 2,100MWp. We are the EPC contractor. This project is the largest individual solar power station in the world so far.

This project follows the latest design philosophy. The whole system is designed as per latest international standards. It is centered at submatrix design, based on the principle of minimum standard power generation costs. The DC side is continuously optimized for reduction of the costs per Kwh. It adopts the networking scheme with a high ratio of installed capacity to rated capacity and a big matrix, a horizontal uniaxial tracking bracket to precise guidance. It makes full utilization of solar resources to make deserts to one super energy basis.

It is estimated by Abu Dhabi energy company that, after the project is completed and went into operation, its generating capacity will meet the power demand of about 160,000 UAE families, and increase the installed PV capacity in Abu Dhabi to about 3.2GW. It can reduce more than a carbon emission of more than 3.6 MT in every year, which equals to reduce the carbon emitted during running of 720,000 units of vehicles.



Effect diagram of Al Dhafra Power Plant Project



Al Dhafra Power Plant Project under construction



The Construction Project of Wind Power Plant and Supporting Power Transmission and Transformation System in Tombwa region in Namibe province in Angola. The power utilization conditions for residents in the south of Angola will be improved after completion of project.

Agricultural PV Project accelerate Agricultural efficient development

The total investment in the Agricultural PV Project in Yanggan Town, Suixi County, Zhanjiang City, Guangdong Province is CNY 290 million. Its time limit is 6 months. The agricultural PV generation greenhouse with a proposed installed capacity of 60MW, include construction of a PV installation works in the site of nearly 1,000mu, outgoing lines and 35kV switching stations.



Agricultural PV Project in Yanggan Town, in Suixi County

This project adopts an integrated utilization scheme for new lands and spaces of open agricultural greenhouse with high brackets. The superstructure is used for lighting and power generation, the ombrophytes can be planted in the lower part, and can be used as cultivation zone, thus ensure agriculture oriented, promote the deep integration of PV industry and agricultural by-products. PVsyst solar PV system design software is adopted to simulate the optimal layout scheme for PV submatrices in combination with local solar resource data and territorial features of project, thus make the power station obtain the optimal power utilization efficiency.

After completion of project, an annual generating capacity of 6.98497 Twh is realized in 25 years, which can save 21.4 KT standard coal, reduce CO2 emission of 58.5KT, the aboveground space resources supported by high-span brackets, through plantation of existing economic ombrophytes on existing lands, realize both economic benefits and social demonstration effects for integrated utilization of PV agriculture, this project will meet local power utilization demands and save a great deal of land resources without change the nature of land.



The IPP Project for Maldives 1.5MW Solar PV Station was completed and went into operation. This project is the first overseas energy project invested by us, and also the first new energy investment project of Chinese enterprise in South Asia.

**(IV) Green culture to raise awareness**

CMEC is advocating the green and low-carbon lifestyle, promote three energy-saving measures of “land saving, power saving and efficiency enhancement”, requiring subordinate enterprises with a significant energy consumption to establish an energy-saving and environmental protection management system, thus raise employees’ awareness of energy-saving and environmental protection.

**List of resource usage in 2021**

Direct energy consumption[Scope of disclosure covers total consumption of direct energy (include coal, oil, natural gases) of CMEC Group and its subsidiaries in China for production, office and other activities.]	3,603 TCE
Direct energy consumption density[Scope of disclosure covers total consumption of direct energy (include coal, oil, natural gas) of CMEC Group and its subsidiaries in China divided with operating revenues (calculated in 10k CNY)]	0.0016 TCE/10k CNY
Oil	767 TCE
Total density of oil consumption	0.0003 TCE/10k CNY
Natural gas consumption	288K m3
Electricity consumption	19.95 million kWh
Comprehensive energy consumption per 10k CNY of operating revenue	0.0016 TCE/10k CNY
Reduction in comprehensive energy consumption per 10k CNY of operating revenue	20%

**CMEC built 'Green Culture' via the Energy Conservation Publicity Week**

Company is gripping with the activity theme of “energy-saving & carbon reduction, green development” and “low-carbon life, green construction of future” and “Green CMEC, I am doer”, highlighting the key points of energy-saving and environmental protection works, enhance propaganda. Activities of both energy-saving propaganda week and low-carbon day achieved a complete success.



Rolling of “energy-saving & carbon reduction, green development, low-carbon life, green construction of future” and other energy-saving and other propaganda slogans for environmental protection

**New drivers of development to enhance sustainable development resilience**



### People-oriented and growing together

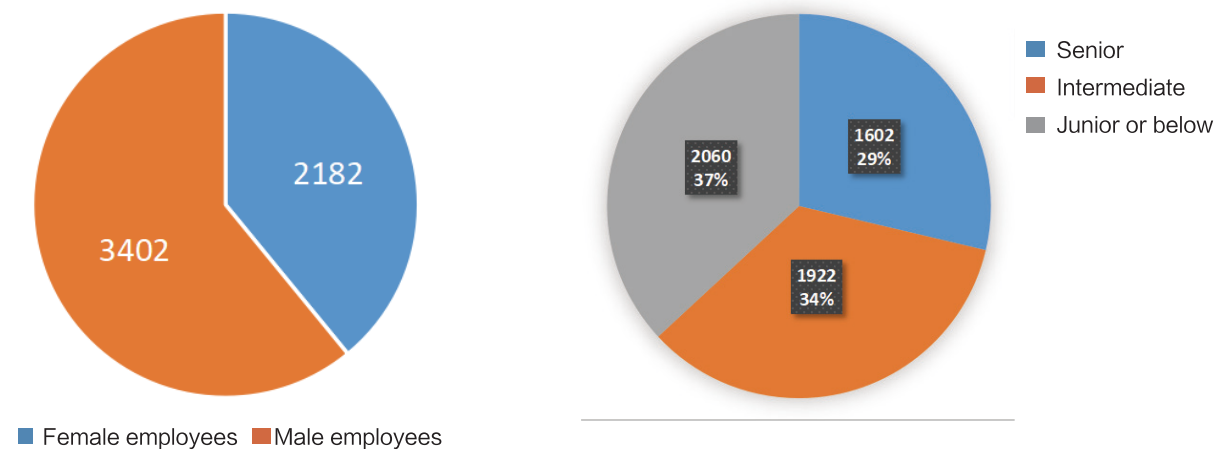
CMEC is insisting on the concept of people-oriented and the principle of equal employment, equal pay for equal work, in order to ensure employees' emolument and welfare and other basic rights; open through the path for vocational development to help employees to grow; solid occupational health and safety management, protect employees' OHS; actively hold various recreational and sports activities to enhance employees' feeling of happiness.

### Safeguard the legitimate rights and interests of our employees

#### (1) Employment management

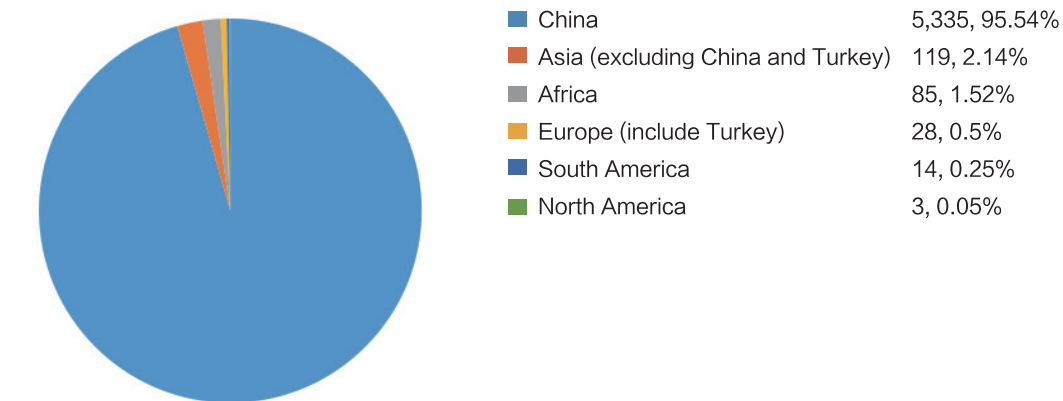
CMEC is perfecting the Fresh Graduate Employment Management Measures, Management methods for open recruitment, Management rule of labor contracts, and other employment management systems, strictly followed the recruitment process, normatively carried out the management of labor relations, and opposed discrimination and employment of child labor.

By the end of 2021, the company had 5,584 employees, including 328 ethnic minority employees, and 1,712 retired employees, and the labor contract signing rate was 100%. Neither the company nor its subcontractors had employed child labor or forced labor.

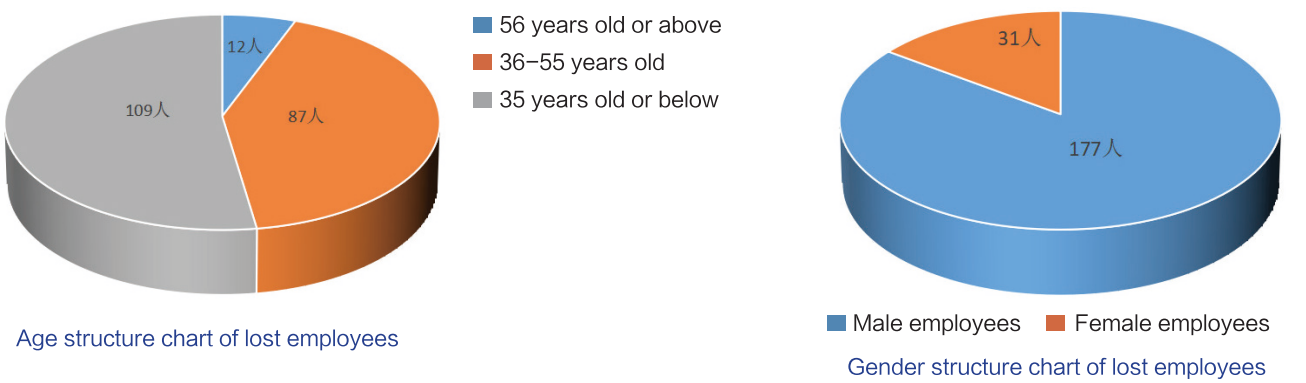
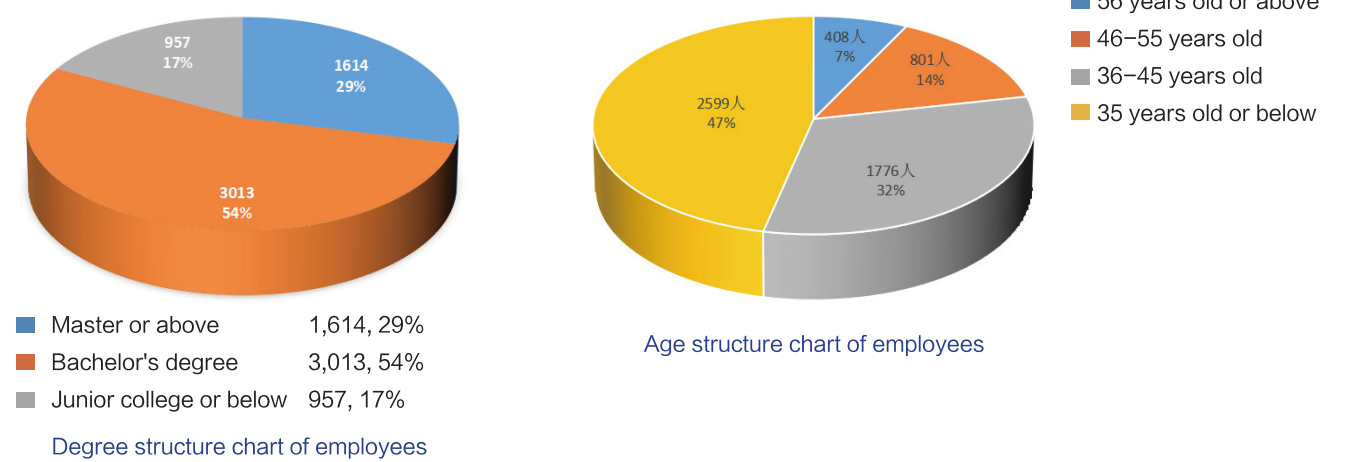


Gender structure chart of employees

Professional title structure chart of employees



Geographical distribution of employees



#### (2) Democratic management

CMEC has established a democratic management system based on workers congress, persisted in and perfected working mechanism of trade union committee and the system of staff congress, unblocked the channels in democratic management, democratic supervision and democratic decision-making, and safeguarded the legitimate rights and interests of employees. In 2021, 4 working mechanisms for trade union were formulated or amended, 7 organizational institutions for trade union were perfected.

- ✓ Participation of corporate employees in employees' trade union 100%
- ✓ 9 trade union committee, and 7 staff congress were convened in 2021
- ✓ 49 proposals for major matters cared by employees and 3 suggestions were collected in 2021
- ✓ 3 rules and regulations were reviewed and passed



October 12, 2021, The 6th session of the 7th staff congress was convened, which was attended by 101 staff representatives, and on which the proposal for selection of employee supervisor was passed.



2021 commendation conference for advanced labor division

### (3) Compensation and benefits

CMEC has continuously perfected and optimized the emolument system and the evaluation and allocation system, revised Methods for performance management of functional departments, Methods for performance management of industry department, issued Guiding opinions of employment, emolument & welfare for overseas organizations, in order to provide a favorable welfare and guarantee for employees.

### Promote employee growth and development

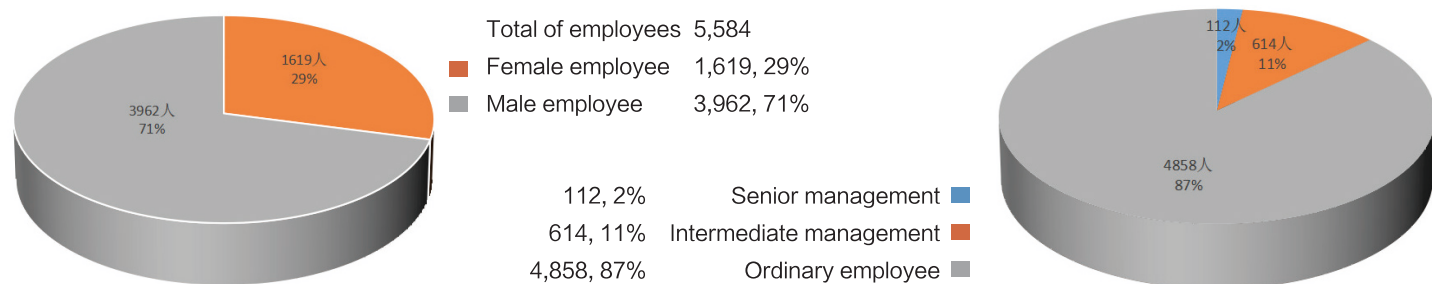
CMEC paid attention to staff training and development. It has established and perfected a talent training mechanism, opened through multiple channels and development paths for employees, which further stimulate vigor of employee. It stresses on election and cultivation of fresh graduates, arrange and determine graduates to be employees to practice in Company in advance to learn about corporate culture and familiarize job contents.

Company is implementing a system of dual mentors, project manager or person in charge of project is acting as the project mentor during internship of overseas project for new employees. After they went back to China for working, senior employees at such position shall be position mentors. Implementation of mentor system will help graduates to successfully transit from an internship position to a formal position after their entry, and grow to a business backbone. Currently, Company has confirmed 95 mentors for new employees in total. They have tutored 112 new employees in nearly three years.

### (1) Strengthen education and training

Company is stressing training in headquarter and localized personnel, creation of “training center for CMEC network” continuously enhance the coverage and effect of training. It is actively developing internal intellectual resources of CMEC Group. It has developed 197 internal curriculums. It has trained 71 trainings in a whole year, which was attended by 2,630 person-times in total.

✓ Number of courses offered by the online learning platform of CMEC: about 3,000



Gender structure chart of trained employees

Professional title structure chart of trained employees



Training session for market development and performance management of international new energy projects



Opening ceremony for 2021 New employees induction training

### (2) Expand the channel for vocational development

CMEC introduced new assessment and incentive systems, set up a talent pool of ‘CMEC experts’, and established an exchange system between chief technical experts and young talents; strengthened talent introduction and broaden talent exchange channels; perfected construction of corporate talent echelon, assisted sustainable development of corporate businesses.

### Protect Occupational Health and Safety

CMEC had continued to improve occupational health and safe production management, provided complete occupational health and safety services to cultivate safety culture and protect employees' occupational health and safety.

### (1) Strengthen the occupational health and safety management system

CMEC had promptly formulated and released documents on COVID-19 epidemic prevention and control, such as the Emergency Notice on the Prevention and Control of COVID-19 Epidemic and the Emergency Plan for Overseas COVID-19 Epidemic Prevention and Control of CMEC to coordinate and implement various works of COVID-19 prevention and control at home and abroad.

Company is paying high attention on employees' life safety and physical and psychological health. In 2021, Company did not experience any personal casualty, nor any accident of equipment, fire, responsible traffic, environmental pollution, etc. at general or above level; nor any occupational diseases; nor any emergency mass violence that resulted in serious economic loss, serious damage on corporate image, or for which related departments released announcement for criticism, economic punishment and other labor disputes.

#### Strengthen the foundation for safe production

- Prioritized targeted solution for important and difficult issues for safe production
- Prevented and resolved various safety risks, and improved the monthly and quarterly assessment quality
- Carried out special inspections on the safety of hazardous chemicals at home and abroad, and identified loopholes and various hidden danger in the storage, use, transportation and management of hazardous chemicals

#### Clarify the responsibilities for safe production

- Decomposed the safe production responsibility to the subordinate units and posts layer by layer, and corporate leaders and some subordinate organizations signed the annual production safety responsibility statement
- Same posts undertake same post safety responsibilities They are not discriminated by classes
- Divided the safety responsibility of each post into two parts: safety management responsibility and personal safety behavior, and performed assessment by means of self assessment and organizational review

#### Safety management system standardization, informatization

- Reviewed the 2021 occupational health and safety management system, promoted HSE standardized management of projects, and created HSE standardized demonstration projects
- Promote corporate standardization management on safety production works, issue safety production briefings in order to popularize experiences obtained from HSE standardized implementation in Phase II Project of Thar Power Station in Pakistan, normalize construction behavior and operating environment, strengthen operating procedure, incorporate specific rectification and HSE standardized construction
- Develop visual “risk maps”, to visualize distribution area and control measures for major and above risks as well as important hidden dangers
- Continuously perfect functions of safety production management platform. Developed electronic file modules of safety production and function of answer all questions and realized electronic management of safety production files





Visual "risk map"

## (2) Prevention of occupational health and safety production risks

CMEC has established a systematic occupational health and safety risk assessment and monitoring system. CMEC had strengthened the risk investigation for COVID-19 epidemic prevention and control, as well as the detection and rectification of hidden dangers of various levels and types, safety inspection and emergency drills to ensure the effective prevention and control of COVID-19 epidemic and occupational health and safety risks; took the initiative to analyze and judge the hazard sources affecting occupational health and safety, and defined management measures; popularized fire safety knowledge and strengthen awareness of fire safety. In 2021, the rectification rate of major production safety hazards was 100%.

### COVID-19 prevention and control

- ◆ Convened pandemic prevention training meetings and experts' remote consultation for 11 times.
- ◆ Contact and coordinate with competent departments, vaccinated corporate employees for 1,500 person-times.
- ◆ In 2021, all corporate pandemic events in foreign countries were effectively controlled. Neither any large-scale personal infection nor any severe cases was occurred.

### Safety production risks prevention and control

- ◆ Formulated Lists of classified control on safety production risks for four specialties include constructional engineering, power engineering, hydropower engineering, power transmission and transformation engineering.
- ◆ Upgraded Guide on standard HSE management for projects, added multi-linguistic translations for HSE management schemes for projects at home and abroad.
- ◆ Formulated models for Scheme of security measures, Scheme of overseas pandemic prevention and control. They are used as standard demonstrative documents for development of overseas projects and project execution.

### Investigation and regulation of Hidden dangers in safety production

- ◆ Conducted safety inspection on 4 Chinese project sites include The EPC Project of Zhangjiagang Sewage Treatment Plant affiliated to CMIE, and on 13 overseas project sites include Thar Phase II in Pakistan.
- ◆ In 2021, Company had found out 8,526 hidden dangers in safety production through patrol inspection by Company and self-inspection by its subordinate organizations, of which, 1 was major hidden dangers. It completed correction of 8,497 hidden dangers in safety production, the correction rate was 99.66%, of which, the correction rate of major hidden dangers was 100%.
- ◆ Strengthened patrol inspection on security measures for overseas engineering projects (organizations), urged implementation of measures, actually ensured the safety of employees life and property.



List of classified control on safety production risks



Joint examination conducted by Ministry of housing of Bahrain and project department on the site of Bahrain Affordable Housing Project



Conduct activities for fire safety training and evacuation drills. Explain fire safety knowledge to employees

CMEC actively carried out seminars and training on occupational health; organized emergency drills to improve staff's emergency response capacity; organized safety activities, created safety culture atmosphere, and improved employees' awareness of occupational health and safety risks. In 2021, the company provided 8,280 person times of safety education and training.

- ⚠ Safety knowledge exam: 20 sessions
- ⚠ Safety education and training: 101 sessions
- ⚠ Safety activity person-times: 17,869 person-times
- ⚠ Number of emergency drills: 280 times



**(3) Enhance OHS guarantee**

CMEC is stressing on staff OHS, providing a safe, healthy and comfortable working environment to employees, strengthening examination on staff occupational health, reducing damage and impact of OHS risks over employees.

**Inform occupational health and safety information**

- ◆ We made public the progress of epidemic prevention and control in a timely manner, and ensured that employees had timely access to epidemic prevention information
- ◆ When signing labor contracts with employees, the company truthfully informed the employees of the possible occupational hazards in the process of work and their consequences as well as the protective measures against occupational hazards, and clearly indicated them in the labor contract
- ◆ Notice board was set up at an eye-catching position in the workplace where the source of occupational hazards was produced to publicize the rules and regulations for the prevention and control of occupational hazards, operating procedures, emergency and rescue measures for occupational hazards and accidents and the testing results of occupational hazards and factors in the workplace
- ◆ Supervised, inspected and guided the implementation of the occupational hazard notification system as required to ensure the implementation of the notification system

**Distribution of safety protection equipment**

- ◆ Distributed pandemic prevention materials for 3 times in a year, 502,000 pieces of disposal medical face masks, 11,400 pieces of disinfection supplies
- ◆ Procured and distributed 955 boxes of pandemic drugs, include particles for lung cleaning and detoxication and other Chinese patent drugs
- ◆ In 2021, overseas projected distributed 161 pieces of first-aid drugs, artemisinin drugs for malaria stricken areas, tablets against snakebite for areas with vipers
- ◆ For high temperature, ultraviolet, noise and other hazards, provided protection conditions and PPE
- ◆ Performed periodic inspection, maintenance and service of occupational hazard protection equipment and facilities
- ◆ Educated and supervised employees on the proper use and safekeeping of PPE

**Carry out occupational health examination services**

- ◆ Successfully completed physical examination works for more than 1,000 corporate employees
- ◆ Do well health consultation after physical examination, arrange reexamination and followup services

**Establish a database for HSE management experts**

- ◆ More than 30 experts have a senior technical title or an occupational qualification of Certified Safety Engineer, Registered Environmental Protection Engineer, Environmental Impact Assessment Engineer



Cardiopulmonary first-aid training



**TCM conditioning against subhealth for employees**

From August 25 to September 18, Corporate trade union and Veteran cadre office jointly conducted activities for “TCM conditioning against subhealth”, invited TCM physical therapists to condition more than 260 employees, which enhanced their awareness of health.



TCM conditioning against subhealth

**Pay attention on staff humanistic care**

CMEC is paying high attention to staff humanistic care, helping employees to solve their practical difficulties, promoting balance between employees’ work and life, creating a comfortable and healthy working environment, enhancing employees’ sense of belonging, gain and happiness through mutual aid fund for severe diseases, heart-warming fund and other caring measures.

**(1) Caring employees’ life**

Company is building a heartwarming home, caring employees’ expectation and appeals. Its headquarter established a “Home of employees” .

- ♥ Number of employees visited and comforted: 10 person-times, heart-warmed for 118 person-times
- ♥ Investment in assistance to employees in need: 615,000 yuan
- ♥ Total amount of “one-day charity donation” : 523,300 yuan

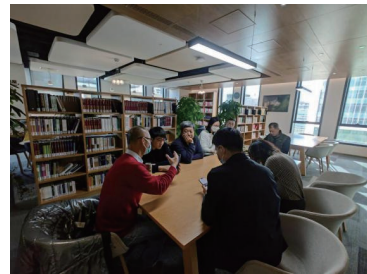


Workplace health talent theme exhibition – Walk into “prevention and treatment” of occupational chronic



**Construct of Home for employees**

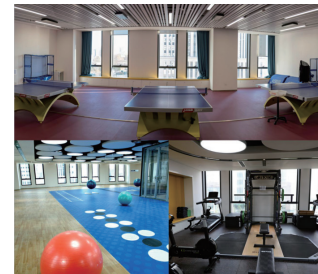
To create a reading atmosphere, deposit scholarly culture, the office of trade union and multiple departments worked together to realize a Home for employees that integrated many functions include reading, coffee, leisure, activity bases through micro-transformation. The overall area is about 700 m2, which includes 7 main functional areas described as follows: Love mommy room, Table tennis room, Yoga ballroom, Gymnasium, Reading room, Coffee corner and Bath and locker room. Home for employees is the specific representation of construction of corporate culture for Company.



Reading area



Leisure coffee area



Gymnasium

**Caring overseas employees**

In terms of psychological issues may be incurred by global spreading of COVID-19, activities of “caring psychological health of employees” were organized and implemented. It helped overseas employees to actively adapt their mentality to suit overseas works and difficulties, pressure and challenges in living through group mental health evaluation, sample interview and investigation, theme training, one to one coaching of special groups and other forms



Comfort families of overseas personnel

In 2021, more than 600 pieces of gifts were distributed to overseas employees

**Caring female employees**

With the goal of enhance quality of female employees, actively conduct various healthy cultural and sports activities to enrich cultural life of female employees. The new office building of Company established a “Love mommy room” , added cold/hot water, refrigerators, disinfection cabinets, disinfection tissues and other necessary amenities and articles

**Love mommy room “Breasting” the love**

To solve breast sucking, breast milk storage and similar issues faced by female employees at lactation, Company planned and constructed a “Love mommy room” . Employees in need may report it at trade union to obtain an access card. The Love mommy room provides a safe, private, clean, healthy, cosy and warm environment to mommies at job of Company, represents corporate care on female employees at lactation.

“I dig the disinfectant & dryer provided by Company. It is warm whenever I take parts out from it. It is clean and dry. It provides me, a mother of second child a full sense of happiness!”

---Xiao Lu



Love mommy room



An employee is resting in the Love mommy room

**“Eternal flower” fabrication activity**

On the 111th International Women’s Day, Company held a manual eternal flower DIY activity with a theme of “Be an intellectual woman, Build a happy CMEC” for such festival, which was participated by more than 400 female employees in Beijing through the main venue and 16 video subvenues.



Eternal flower activity

**Caring employees in need**

- ◆ Assist and help employees suffering from a serious disease, handicapped employees and employees whose families are suffering from hardship in various forms, represent the warmth of CMEC family, and the spirit of mutual aid and fraternity among employees

**Caring retired employees**

- ◆ Workers actively go the home of veteran cadres to pick up medical bills, do well service works
- ◆ Do well condolence and comfort, comfort retired employees by means of video, telephone or other means





Visit and comfort senior workers, report corporate situations to them, care their health and life



A souvenir badge of “Honor of 50-year presence in CPC” was issued to 88 senior carders who were “Honorable for 50-year presence in CPC” from the Company as a whole

**(2) Enrich spare time**

CMEC advocates a healthy and happy working atmosphere, and enriches the spare time of employees and creates a good atmosphere for happy working through regular sports competitions, knowledge contests, art performances and other recreational and sports activities.



Invitational tournament of SINOMACH heavy equipment cup table tennis room



The 5th Shenruan Cup Badminton Invitational tournament



Participation in the football game organized by the Partner--Huawei Ghana Technical Representative Office

**Harmonious community for a better life**

In the development and construction processes of project, CMEC is fully respecting the lifestyle of residents at where the project is located, providing chances to them for participation in project construction; provide helps within its power to residents at where the project is located in terms of education, medical care, recreation and sports, etc.

- ◆ Number of foreign employees employed: 1,174 persons
- ◆ Number of foreign labor employed by subcontractors: 14,333 persons

**Implement localized operation**

**(1) Set up local offices**

CMEC had strictly abode by the laws and regulations of local places where the projects were located and set up local offices to improve the operation efficiency during the project development and construction. By the end of 2021, Company had 31 overseas subsidiaries. In accordance with the development tendency of international markets, 10 new overseas regional centers are established in the Middle East, ASEAN, Central Asia, Africa and other important markets.

**(2) Implement local employment**

CMEC fully respects and protects local customs, culture and habits, and had made differentiated employment plans to enable local employees to participate in the project construction; actively provided necessary knowledge and skill training for local staff to enhance their vocational skills; actively carried out cultural exchanges and fellowship activities to promote mutual understanding and respect among employees from different cultural backgrounds and create a more harmonious and pleasant working atmosphere.

**Improve the life of local residents through localized employment**

The transformation project of Pakistani National Power Grid Dispatching system generally contracted by CMEC established a local staff-based field project management office, employed many commercial and technical personnel. The Project department strictly observe local laws and regulations, and established a normal and harmonious labor relationship with local employees. Through implementation of localized operation, the Project Department had not only realized reduction in costs and enhancement in efficiency, guaranteed successful execution of project, but also created employment positions to the local, and promoted local social and economic development.



Group photo with local employees for Phase III Transformation Project of National Grid Dispatching System

**Deputy foreman, I am CMEC people, I am proud**

As for the Phase III Project for construction of Luanda Gandelabro Water Plant in Angola, CONSTANTINO ANTUNES, a local deputy foreman said for one interview program of TPA (Televisao Publica De Angola) that, “Phase III construction works of Luanda Gandelabro Water Plant witnessed and accompanied my growth. I am growing from a jobless young man wandering about streets and lanes, to the current deputy foreman. I am able to make contributions to national construction through my efforts in project. It is unimaginable for me in the past. Thank CMEC, thank my Chinese teacher. I am CMEC people. I am proud!”

Currently, the branch office in Angola has established and cultivated a relatively stable team of local employees. This company paid individual taxes, social insurance, industrial injury insurance for local employees in accordance with local laws, conduct trainings on job skills, OHS and corporate culture on a regular basis. By the end of 2021, there were 20 Angolian employees who were working in our company for 10 years or over, 48 Angolian employees who were working for over 5 years, of which, there was 1 survey engineer, 1 mechanical engineer, 1 safety engineer, 5 foremen, 5 team leaders, 2 college students.



CONSTANTINO ANTUNES, the local deputy foreman interviewed by TPA

**Signed the “Tri-party cooperative project of China, Germany and Africa”, provided training on occupational technology and related management policies for Ethiopia**

The Lebi Garbage Power Plant Project in Addis Abeba, Ethiopia generally contracted by CNEEC is the first garbage incineration power plant in African continent, is regarded as the flagship project for development of waste-to-energy market in Africa, it can comprehensively cope with the issue of energy shortage and waste disposal. It is one of typical projects practiced by Chinese enterprises in sustainable development overseas. Lebi Power Plant is able to process 1280 tons urban solid waste per day, generate electricity of 600 MWh, which equal to one third of the total daily power consumption for family lighting in Addis Abeba. After Lebi power plant went into operation in May, 2019, it significantly improved the waste management in Addis Abeba, and continuously supply electricity to the capital. Recently, during daily operation of Lebi power plant, issues with regard to software system operation, hardware maintenance, plant management, occupational health and safety, etc. occurred. Meanwhile, lack of systematic policy supports, such as rational subsidiaries for garbage proposal, etc. also strictly restrained the sustainable development of Lebi power plant and further development of renewable energy industry in Ethiopia. Therefore, comprehensive and systematic assistance and supports are in urgent need for sustainable operation of Lebi power plant.

With recommendation by China International Contractors Association, German Agency for International Cooperation (GIZ) and CNEEC respectively communicated with the Owner, and received its active response. They also reached a cooperation intention regarding personnel training, policy coordination and other works, and completed the project proposal. GIZ and CNEEC will cooperate to provide training on occupational technologies and related management policies to Ethiopian party. Based on division of labor, CNEEC is responsible for organizing trainings to employees of power plant. GIZ is leading organization of policy dialogue and recommendation works. During the period of The 12th International Infrastructure Investment and Construction Forum, CNEEC, China International Contractors Association and GIZ jointly signed a Tri-party Cooperation Memorandum on capacity construction for Ethiopia Lebi Garbage Power Plant Project. This project is the first batch of China-Germany-Africa tri-party cooperation projects” under the Central initiative of China-Germany sustainable development co-sponsored by Chinese and German governments. It is aimed at promoting exchanges among Chinese, German and Ethiopian governments in terms of waste management and energy policies, and enhancing Ethiopian management level in related fields. The implementation of project is conducive to implement the Joint statement of intention on emerging development cooperation between China and Germany signed between Ministry of Commerce of the People’s Republic of China and The Federal Ministry for Economic Cooperation and Development (BMZ).



**(3) Carry out local procurement**

CMEC is continuously enhancing localized procurement management, formulating localized procurement plans, helping local suppliers to enhance their technology and management level. Under the precondition of rational price, guaranteed technology and time limit of project, CMEC has successfully cooperated with many local companies, helped and promoted development of local enterprises. Take the Phase III construction project of Luanda gandelabro water plant in Angola for example, the number of local service organizations engaged reached 12.

**Won the bid for the Project of 220kV and 132kV Power Transmission Line in Sri Lanka**

The project of New Anuradhapura--New Hembrari 220KV Power Transmission Lines and Supporting 132kV Power Transmission Lines with a length of 46km was one Internationally open bidding project of Ceylon Electricity Board in 2021. Its capital was funded by Asian Development Bank (ADB). CMEC engaged a local design organization for power transmission lines in Sri Lanka as the service organization, thus enhanced the degree of line design optimization and matching, finally won the bid.

**Cooperation memorandum signed with local partner**

During development of Phase II Project of Ghana Safety Network, a cooperation memorandum was signed with local partner, localization in terms of personnel, management and procurement of small appliances was realized at that time.



**Consolidate and expand achievements of poverty alleviation**

Company is continuously promoting two characteristic assistance brand projects of “Elderly Personnel Training” and “Assisting farmers with E-commerce”, integrating the advantages of resources, putting forth on elderly personnel training, training on E-commerce talents and employment assistance.

- ◆ Conducted four phases of training sessions for generally benefited elder-caring, enhanced special knowledge and skill of local elder -caring, promoted employment, in which 252 students from fixed poverty counties in total attended.
- ◆ Conducted E-commerce training sessions, taught profoundly introduction to E-commerce, establishment of online shops, live streaming marketing, social group operation and other E-commerce skills from all aspects, stimulated interests in engagement of students from assisted counties, helped them solved practical issues encountered.
- ◆ Instructors from Taobao University were invited to guide farmers to solve issued encountered in operation on site. After training, product packages of assisted counties were obviously improved and enhanced, more and more quality agricultural products for poverty alleviation entered into high-end markets and became suppliers of famous brands.
- ◆ Take use of the own E-commerce channel “Xingnong Welfare Platform”, presence in “the platform for poverty alleviation through consumption of central enterprises” of State-owned assets Supervision and Administration Commission, explore expansion of sales volume by means of bartering by central enterprises and other methods.



“Assisting elder-caring talents” Achievements fulfilled in elder caring employment



In 2021, CMEC held 4 “Generally-benefitted training sessions for elder-caring” in Gushi, Henan, Huaibin, and Chaotian District, Guangyuan City, Sichuan, which trained 252 person-times in total. Excellent trainees found new employment chances with their proficient capability, and utilize knowledge and skill acquired by them into works. They are hard-working and able to bear hardship, cautious and conscientious.

Fan Zhiyun is one woman of Gen X from Gushi County, Henan Province. She was graduated with outstanding achievements, obtained the certificate of “Medical Care and Nursing Care Combined Certificate”, and gained a chance for working in Shanghai Fuxiang Home for the Elderly. She adopted professional psychological counselling learned from elder-caring training sessions, led the elder to sing, dance, do health exercises, and various handworks. She also took out her mobile for the elder to talking with family, chatting by video, set up the bridge for passing family affection between the elder and family, family and the Home for the Elderly.

“I will keep “the oath of elder-caring nurses” swore on the training session. I swear to feed back SINOMACH, feed back the society with a grateful heart.”

—Fan Zhiyun

Li Zhaoqin from Gushi County, Henan Province, is now one “elder-caring nurse” in Beijing Jintaiyishouxuan Home for the Elderly. In work practices of elder-caring, she slowly felt that better elder-caring services cannot be achieved without FLR – filial piety, love and responsibility taught by teachers of training sessions. She felt further that, participating in elder-caring service is also a process of self-practise, a process of sublime in heart.

“I will use knowledge learned from the SINOMACH training sessions for elder-caring, try my best to serve the elder, thus obtain smiles of the elder and family. It is my largest happiness!”

---Li Zhaoqin



Generally-benefitted training session for elder-caring in Gushi County, Henan



E-commerce training session in Pinglu County, Shanxi



Awarded with SINOMACH Outstanding Contribution Prize for poverty alleviation

Contribute to community development

CMEC is actively engaged in the community where the project is located, making use of its own resources and business advantages to support construction of local traffic, drinking water, sanitation and other infrastructure, improve living environment of community; supporting public welfare undertakings of community, contributing to community development through donating money to schools, constructing hospitals and donating facilities and equipment.

(1) Improve the livelihood of the community

CMEC is actively participating in community construction and livelihood improvement, throwing itself into construction of large infrastructure in communities, thus realize a living vision of clean drinking water in communities, unblocked road, live and work in peace and contentment, as well as beautiful city.



Bahrain Sitra East Affordable Housing Project ensures local livelihood

Bahrain Sitra East Affordable Housing Project contracted by CMEC is one of cooperation achievements fulfilled by both countries during the visit of Hamad, the King of Baharin in China in September, 2013. CMEC is mainly responsible for civil work construction, waterproofing, machine and electricity, equipment, decoration and other works of this project. This project includes 3,175 set of affordable houses and supporting municipal works. It was implemented in three phases, of which, 1,077 sets of houses in Phase I works was started to construction in January, 2021.



Anwaer, Chinese Ambassador to Bahrain, and Kharid, Deputy Prime Minister of Kingdom of Bahrain, Basim, Minister of Housing, Isam, Minister of Engineering jointly attended the launch ceremony for Bahrain Sitra East Affordable Housing Project, and other governmental officials

Since its beginning, social housing is preferential works of Bahrain governments at all times. Hamad, the King of Bahrain is highly concerning about affordable housing and other key livelihood works. More than 100,000 sets of social housing have been built. Currently, the number of local residents in Bahrain who applied for social housing exceeds 55,000. It is increasing at a rate of 5,000 persons per year. The waiting time of application has exceeded 5-20 years. To cope with urgent and urgent housing demands of citizens, the King Hamad has instructed Ministry of Housing and other departments to accelerate construction of affordable housing for many times in recent years. Since commencement of this project, it can drive construction of local infrastructure, and enhance the living conditions of surrounding residents.

“We are paying high attention on the project of Bahrain Sitra East Affordable Housing Project. As a specific measure for implementing achievements of visit of King Hamad in China, and for strengthening cooperative construction of BRI, Chinese enterprises will exert their technical and capital advantages to carefully do well project implementation, hand over quality products to Bahrain government, help it to promote livelihood construction, and further enhance China-Bahrain cooperation on this basis, deepen China-Bahrain friendship.”

—Anwaer, Chinese Ambassador to Bahrain

**(2) Enthusiastic volunteer service**

CMEC supported the development of local educational, cultural and sports undertakings by donating school construction, supporting school infrastructure construction and subsidizing students; it was enthusiastic about volunteer services and sharing the fruits of development.

- Year of 2021
  - ◆ Employees of the company participated in the anti-epidemic volunteer service was about 110 persons
  - ◆ Accumulated hours of volunteer services is 1,220h. Accumulated duration of volunteer services is 21 weeks

**Temperature of peace Fiery heart**

CMEC donated two intelligent infrared thermal imaging thermometer systems to Ceylon Electricity Board. Equipment of such system is able to thermally imaging human bodies and body temperature measurement in a quicker, more accurate and contactless way, extremely increase the efficiency of thermal measurement in the office area of CEB, effectively avoid cross-infection between operator and stream of people.



Donation of intelligent infrared thermal imaging thermometer systems by CMEC to Ceylon Electricity Board

“CMEC provided a great deal of epidemic prevention materials in urgent need to CEB, made active contributions to CEB for effective pandemic control. CEB will keep it in mind.”

---Mr. Karunaratna, General Manager of Ceylon Electricity Board

**They brought hope to students**

In November, 2021, representatives of the Pakistan Neelum Jhelum hydropower project department of CMEC came to the aided CMEC Friendship School for a return visit, brought schoolbags, books and other gifts to children. This school is located in the vicinity of Muzaffarabad, Pakistan Kashmir. It was seriously damaged in South Asia Earthquake in 2005. It has not been effectively repaired for a long time. After such situation was learned by Neelum Jhelum hydropower project department, it actively contacted the school, elaborately designed and built new school buildings that met highest seismic requirements. The new school buildings was dedicated and handed over to the school in April, 2018. Such deed was reported with a title of “They brought hope to students” on the issue of People’s Daily dated on November 23, 2021.

Currently, the Friendship School has 175 students and 9 teachers. The existing 12 new school buildings can accommodate up to about 400 students. The school is planning to expand its teaching scale, trying to incorporate secondary education, making more children to be able to learning near their home.

“Dedication of new school buildings makes operation of school gradually backed to normal track, the faculty and teaching quality continuously increased. We shall thank the Chinese enterprise for help. They brought hope to students.”

---Azra, President of CMEC Friendship School



Representatives of Neelum Jhelum hydropower project department went to CMEC Friendship School for back visiting



 Working together to assist the “Trust network” , jointly build the great wall for COVID-19 prevention in Angola

Since March 2021, Angola started to receive vaccines donated by China and international society. Organization of vaccination works is in urgent need. While do well pandemic prevention works on site, CMEC project department in Angola is actively cooperating and supporting “Trust network” actions launched by Chamber of Chinese Enterprises in Angola and Ministry of Health of Angola, constructing pre-registration points for vaccination.

As a vice president organization of the chamber, CMEC actively undertook works of the residential vaccination points of CACUACO city where the Phase III Project of Luanda Gandelabro Water Plant. After preparations in two weeks, on November 13, CMEC vaccination station (the Registration No. LA3430L1133 Vaccination Station in Ministry of Health of Angola ) started official services. Costa, the local safety engineer of the Phase III project of Luanda gandelabro, and Manuel, the on-the-job college students who have been working in Company for 10 years are responsible for works of this station. It had completed vaccination booking and printed vaccination certificates for 650 local residents in two weeks.

Such action of Company gained a favorable reputation from local residents and was appreciated by Ministry of Health of Angola.



An aided Pre-registration point for vaccination in Angola

 Participate in the international charity sale themed of “Love Without Borders”

In December, 2021, Company participated in the 13th “Love Without Borders” activity with a theme of “health advancing for rural revitalization” . CMEC donated equipment to improve local medical level and 300,000 yuan to Jinping County, Malipo County in Yunnan province by means of donation and online charity sale.



Venue of Love Without Borders

 Help poor children to realize their “micro wishes”

On the occasion of incoming International Children’ s Day on June 1, Corporate Committee of Chinese Youth League is responding to the youth brand activities of “hand in hand realization of “micro wishes” organized by SINOMACH, help 71 poor children realized their “micro wishes” from Yudong Primary School (Happy SINOMACH Primary School) in Shahe Town, Chaotian District, Guangyuan City, Sichuan Province – the fixed assistance area.

“Micro wishes” of children covering 11 sets of color pencils, 7 pieces of sports watches, 8 thermos cups, 6 books of ancient poems, 6 Chinese dictionaries, 7 sets or marker pens, 15 pieces of footballs and 11 umbrellas in total.

In 3 days, 196 young members of Communist Youth League, cadres and employees in total from CMEC actively participated in such activities. Their accumulated donation exceeded 10,000 yuan. Such donation does not realized micro wishes of 71 children from Happy SINOMACH school, and also subscribed 418 books of Party History for Teenagers. These books are sent to rural primary and secondary schools in Huaibin County, Hehan.



Respond to call of “learn from spirits of Lei Feng, walking together with Lei Feng” , organize “subdistrict voluntary service teams” to maintain the appearance of streets, and “community voluntary service teams” for entry into communities to clean bulletin boards, and popularize knowledge of garbage classification

## Outlook on 2022

In 2022, the newly formed China Machinery Industry Engineering Group Co., Ltd will rely on the powerful scientific research strength and industrial basis of SINOMACH, give play to its overall advantages of led by design consultation and provision of “one-stop” services of full engineering contracting chain, incorporate with demands of post-pandemic era in host countries, focus on development of projects in the field of industrial and international productivity cooperation that meet requirements of “high standard, sustainability and benefit people’ s livelihood” , continue to make contributions for BRI construction to go deeper and realer.

Company will continue to implement the operation policies of “stabilize outside and plough inside” , exert its unique advantages, incorporate into the new pattern of dual circulation, serve “3060” goals of carbon peaking and carbon neutrality, rural revitalization and other national strategies, fulfil mission and responsibilities of a central enterprise during stabilization of growth, thus welcome the successful convene of the 20th Congress of CPC with practical actions!

律  
騰  
飛

原全国政协主席贾庆林为公司题词  
Inscription for CMEC by Jia Qinglin, the former Chairman of  
the National Committee of the Chinese People's Political  
Consultative Conference ( CPPCC )  
"Soaring"


**Company honor**

Winner	Issuer	Award or honor	Winning date
<b>CMEC Group</b>	International SOS	Second place of Award for sustainable development	October, 2021
	Global Corporate Sustainable Competitiveness Summit Forum	Excellence Enterprise in Overseas Sustainable Practice Award 2021	November, 2021
	China International Contractors Association	“2021 AAA Enterprise in the Credit Rating of Foreign Contractors”	December, 2021
	China Chamber of Commerce for Import and Export of Machinery and Electronic Products	The honorary title of “AAA Credit Enterprise in Enterprise Credit Evaluation”	December, 2021
	SINOMACH	Prize for Market Development	December, 2021
	Construction and Installation of Angola SOYO I Combined Cycle Power Plant Project	Ministry of Housing and Urban-Rural Development of the People’s Republic of China, China Construction Industry Association	2020 China Construction Engineering Luban Prize (overseas engineering)
Comprehensive Application of BIM Technologies in Atana Water Plant Project in Sri Lanka	China Municipal Engineering Association	Prize for Class III Achievements for Individual Item Teams of The 3 <sup>rd</sup> Municipal Cup of BIM Application Skill Competition	December, 2021
Angola SOYO I Combined Cycle Power Plant Project	Ministry of Ecology and Environment of the People’s Republic of China	2021 Typical cases for BRI synergistic interaction of pollutant and carbon reduction	December, 2021


**Company honor**

Winner	Issuer	Award or honor	Winning date
Project of Thar Coal in Pakistan	China International Contractors Association	Excellent camp of Chinese overseas engineering	December, 2021
Information System for Engineering Construction Conditions in BRI Countries	China International Contractors Association	2021 Best practice case for Digitalization of International Engineering	December, 2021
Engineering Testing Management System	China International Contractors Association	2021 Excellent application case for Digitalization of International Engineering	December, 2021
Department of Legal Affairs and Risk Management	CBLJ journal Commercial law	Excellent Team of Legal Affairs for Construction and Infrastructure	December, 2021
Department of Legal Affairs and Risk Management	CBLJ journal Commercial law	Excellent Team of Legal Affairs for Domestic Compliance	December, 2021
Technologies and industrial application of new type of single/double-side quick unloading railway hopper car for ores	SINOMACH	The third prize for 2021 “SINOMACH Science and Technology Award”	December, 2021
One kind of comprehensive compaction filling method for filling and land building in loess hill and gully areas	SINOMACH	The second prize for 2021 “SINOMACH Excellent Patent Award”	December, 2021

# Feedback form Readers

Respectful reader:

Hello! Thank you for reading our report. We look forward to your comments and thoughts on the report, which will help us continuously improve the way we prepare the report and our performance in sustainable development. You are welcome to fill out the following questionnaire, which you can send back to us through the contact information at the bottom of this page.

Thank you very much for your support to our works!

China Machinery Engineering Corporation  
July, 2022

1. Which of the following types of stakeholders best fits your identity?

- Stockholder       Employee       Customer       Supplier/contractor
- Government       Peer       Community/public
- Industry association/NGO       Media       Others (please specify)

2. On the whole, how do you evaluate our report?

- Very good       Good       Average       Poor       Very poor

3. What do you think of this report?

- Information disclosure:  Very good     Good     Average     Poor     Very poor
- Design:  Very good     Good     Average     Poor     Very poor
- Readability:  Very good     Good     Average     Poor     Very poor

4. Which chapter do you think best suits your needs? (You can choose up to 3 of them)

- Corporate governance
- Sustainable development management
- New development pattern to build sustainable infrastructure
- New development mode, contributing to sustainable ecological civilization
- New drivers of development to enhance sustainable development resilience
- Outlook on 2022
- Company honor
- Others (Please specify)

5. What issues are of greatest concern to you? (You can choose up to 5 of them)

- Strengthen the leadership of Party building
- Law-based enterprise governance
- Sustainable development management
- S&T innovation
- Supply chain management
- Fulfilment of industrial responsibilities
- Employment management
- Democratic management
- Career development
- Workplace care
- Green projects
- Green culture
- Consolidation and development of achievements of poverty alleviation
- Contribution to community development
- Board operation
- Risk Management
- Operation management
- Diversified financing
- Quality service
- Partnership cooperation
- Salary and benefits
- Staff training
- Occupational health and safety
- Green management
- Clean energy
- Local operation
- Others (please specify)

6. Do you have any comments or suggestions on our sustainable development report or our performance?

### Contact us:

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