



海洋石油工程股份有限公司  
Offshore Oil Engineering Co.,Ltd.



**2022**

## ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORT





## ABOUT THIS REPORT

**Reporting entity:** Offshore Oil Engineering Co., Ltd.

**Scope of reporting organization:** Headquarters of Offshore Oil Engineering Co., Ltd. and its subsidiaries.

**Reporting period:** From January 1, 2022 to December 31, 2022. In order to enhance comparability and continuity of the report contents, some contents are appropriately traced back to prior years.

**Description of name:** "Offshore Oil Engineering Co., Ltd." is also referred to as "COOEC", " Offshore Oil Engineering", "Company" or "we" In this report for the convenience of expressing.

**Reporting cycle:** This report is issued once a year, specifically at the end of March each year.

**Data source description:** The information in this report is derived from the relevant internal statistical statements, company documents, stakeholder surveys and interviews and other data of COOEC. The emissions and energy use indicators of the Company are counted and calculated according to national and international standards.

**Reference standards:** This report refers to the Guidelines for Sustainable Development Reporting (GRI Standards) issued by the Global Reporting Initiative and the Guidelines of Shanghai Stock Exchange No.1 for the Application of Self-Regulation Rules for Listed Companies - Standardized Operation (2022 Edition) . The report also refers and responds to the issues concerned by MSCI's ESG rating, and is prepared based on the Company's current development level and the actual ESG situation.

**Report change in this year:** From 2007 to 2021, the Company disclosed the Corporate Social Responsibility Report for 14 consecutive years. This year, the Company disclosed the report in the form of the Environmental, Social and Governance (ESG) Report.

**Access to the report:**

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### Disclaimer:

This report includes forward-looking statements. Except historical facts, all possible or future events and statements, including but not limited to, premises, objectives, estimates and business plans, are forward-looking statements. Due to the influence of external variable factors, the future development results or trends of the facts may be different from such statements.



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CHAIRMAN'S STATEMENT



In recent years, the problem of global warming has become increasingly severe and extreme weather events have occurred frequently, accompanied by the intensification of the European energy crisis and the geopolitical conflicts, the world energy pattern is changing quietly. As China announced to achieve peak carbon dioxide emission by 2030 and carbon neutrality by 2060, the United States and the European Union proposed to achieve the net zero emission by 2050, and the climate neutrality by 2050 respectively, the oil industry with high carbon emission is facing tremendous ESG transformation pressure. Offshore Oil Engineering Co., Ltd., a typical enterprise in the oil and gas industry, just happens to be in this era of change to address climate change and energy transformation. We are fully aware that while providing reliable and sustainable modern energy to improve human living and production conditions, we should also note that ESG efforts such as reducing greenhouse gas

emissions and protecting endangered marine animals have no time to delay and urgent actions are needed to address the risks and challenges due to the external environment.

In terms of the ESG practice, we've been acting quietly for years. From 2007 to 2021, we have consistently disclosed the corporate social responsibility report for 14 consecutive years to show all sectors of society that, as a responsible corporate citizen, we have long contributed our modest strength to poverty alleviation, rural revitalization, public welfare and charity and others, and have continuously given back to the society in pursuit of harmonious coexistence between the enterprise and the society. In this year, we officially disclosed our first ESG report to the outside world. This change means that we actively learns from and responds to the spirit of the meeting of Work Plan for Improving the Quality of Listed Companies Controlled by State-owned Enterprises issued by the State-owned Assets Supervision and Administration

Commission of the State Council, gradually establishes and improves the ESG management system within our company to examine the long-term and sustainable development of the Company from the perspective of ESG. Compared with the corporate social responsibility reports publicly released in previous years, in the ESG report disclosed this year, we show the outside world a series of progresses in protecting the ecological environment, actively fulfilling social responsibilities and strengthening corporate governance through more detailed quantitative data and various action cases.

For environment, the Company comprehensively promoted environmental protection, energy conservation and consumption reduction in 2022, paid attention to the comprehensive utilization of resources, and actively promoted environmental protection technologies and advanced technologies. We actively explored new energy technologies, such as wind energy, solar energy and ocean energy, to reduce dependence on traditional energy sources and achieve sustainable development. At the same time, we strictly abided by environmental regulations in the production process, actively promoted water-based primer, and controlled pollution emissions, so as to reduce the impact on the natural environment. We also actively promoted green production methods, such as waste treatment and reuse, to minimize the damage to the environment, and were committed to marine mammal conservation, with no environmental pollution accidents from ships throughout the year. In 2022, based on the implementation of 92 energy conservation and efficiency improvement measures, we achieved the total energy conservation of 4,183 tons of standard coal, the carbon reduction of 11,425 tons of carbon dioxide, the comprehensive energy consumption of 0.07 tce/RMB 10,000 output value, and the carbon emissions of 0.1895 tCO<sub>2</sub>e/ RMB 10,000 output value, which successfully completed the 2022 energy conservation and carbon reduction targets and indicators.

At the social level, we paid attention to the physical and mental health, safety and welfare of employees, and comprehensively strengthened the management and training of employees, so that they can obtain good career development and security guarantee at work. There were no major safety accidents or occupational disease incidents throughout the year. In addition, we actively fulfilled our social responsibilities and increased public welfare investment in many fields, such as rural revitalization, education aid, assistance to farmers and charities. In 2022, the Company invested RMB1.5 million to support the poor village, and helped the sales of special agricultural products, such as "Liubanhong" garlic, Xiaozhan rice and seasonal fruits and vegetables, for RMB4.06 million throughout the year, making phased progress in poverty alleviation. the Company also donated RMB 150,000 to the Hope Primary School, with a year-on-year increase of 50% and continued its contribution to school condition improvement and education environment optimization.

In terms of corporate governance, the Company focused on standardizing operation, improving systems and strengthening supervision to ensure the stable and transparent operation of the Company. In 2022, we actively promoted the reform and innovation of the internal management system of the Company, strengthened internal supervision, improved decision-making efficiency, comprehensively enhanced risk control, and further deepened the construction of anti-corruption and clean governance. During the special outsourcing rectification, we deeply reviewed the outsourcing control, formulated 16 rectification measures, and prepared a list of core capacities to be built and a scheme for control of 112 key suppliers. The Company implemented the special rectification of procurement contracts, and revised 17 supply chain and contract management systems. These special tasks constituted a comprehensive "physical examination" of the Company, which improved the compliance management of the Company to a higher level.

Looking to the future, we will strive to integrate ESG concepts into all aspects of the Company's management and daily operation. All employees and partners of COOEC will work together to serve the global energy projects and marine projects in a green, low-carbon and ecologically-friendly manner. The Company will also continue to strive for the long-term goal of "building a world-class engineering company with Chinese characteristics", adhere to the new development concepts of high quality, sustainability, green and low carbon, and create a better future for the offshore oil industry!



The sun rises in the east

AMBITIOUS GOALS

TO BUILD A  
WORLD-CLASS  
ENGINEERING  
COMPANY  
WITH CHINESE  
CHARACTERISTICS

- The annual energy saved reaches  
**4,183** tons of coal equivalent
- Carbon reduction  
**11,425** tons of carbon dioxide
- Annual comprehensive energy consumption per 10,000 yuan of output value  
**0.07** tons of coal equivalent per 10,000 yuan
- Carbon emissions per 10,000 yuan of output value  
**0.1895** tCO<sub>2</sub>e per 10,000 yuan



# COMPANY PROFILE

- Company profile
- Organizational structure of the Company
- Corporate strategy
- Stakeholders
- Key performance indicators

## OVERVIEW

Offshore Oil Engineering Co., Ltd. (hereinafter referred to as "COOEC") is the only large-scale EPC company in China that integrates the design, land manufacturing and offshore installation, commissioning and maintenance of offshore oil and gas development projects, as well as liquefied natural gas and refining and chemical projects. It is also one of the largest and most powerful EPCI (design, procurement, construction and installation) contractors of offshore oil and gas projects in the Asia-Pacific region. It was listed on the Shanghai Stock Exchange in February 2002 (stock short name: COOEC, stock symbol: 600583).

The Company is headquartered in Binhai New Area, Tianjin. The Company has more than 9,000 employees, and has built a multi-level and wide-ranging professional team competent for EPCI projects and established a set of operating procedures and management standards in line with international standards. We have three offshore engineering manufacturing bases, one in Qingdao City, Shandong Province with area of more than 1.2 million square meters, one in Lingang Industrial Zone, Binhai New Area, Tianjin (Phase I has been completed and put into operation) with area of 570,000 square meters, and one in Zhuhai City, Guangdong Province with area of 2.07 million square meters through COOEC-Fluor Heavy Industries Co., Ltd. (with 51% of the shares held by COOEC), forming a site layout that stretches across the north to the south, has complements functions, covers deep and shallow waters and faces domestic and foreign markets. It has a professional offshore construction fleet consisting of 19 ships, including class 3 dynamic positioning deepwater pipe-laying ships, 7,500-ton crane ships, underwater engineering ships, and deepwater trenching ships, so that its offshore installation and pipe-laying capabilities are in the leading position in Asia.

After more than 40 years of construction and development, the Company has defined the development orientation of "building a world-class energy engineering company with Chinese characteristics" and the overall development strategy of "building EPCI general contracting capacity with design as the sole core, operating management ability and technology leadership ability as two foundations, internationalization,



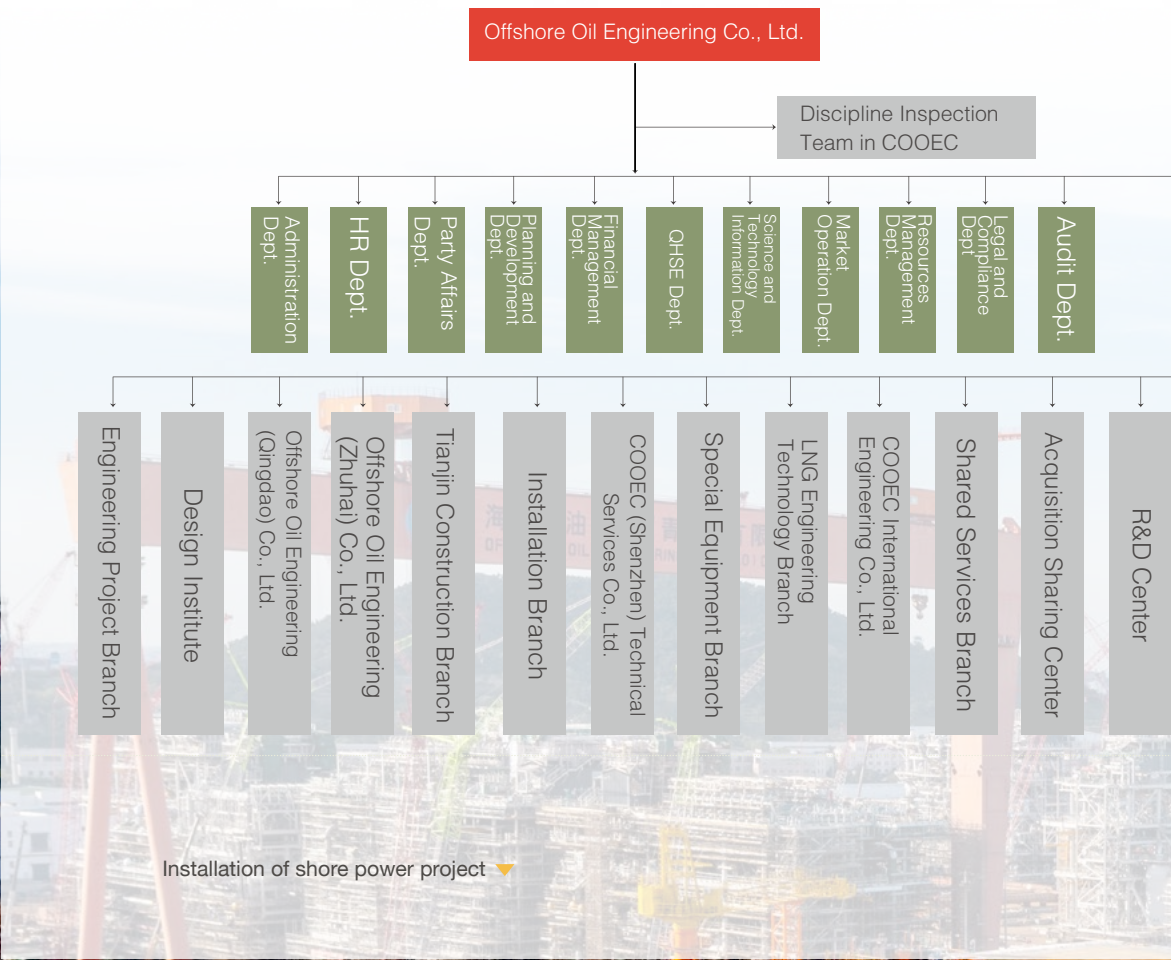
deep-water orientation and new industrialization as three development directions, and talents, market, cost, risk control and information construction as five specific starting points", and has nine capabilities, including marine engineering design, marine engineering construction, marine engineering installation, offshore oil and gas field maintenance, underwater engineering detection and installation, high-end skid-mounted product manufacturing, marine engineering quality testing, marine engineering general contracting management and liquefied natural gas engineering construction.

In recent years, on the basis of consolidating and enhancing traditional marine engineering capabilities, the Company has grasped the general trend of the global oil and gas industry, accelerated the transformation and upgrading to green, low-carbon and high value-added products, expanded the integrated service capability for energy engineering, cultivated and formed industries and capabilities for LNG engineering (including construction of LNG modules and LNG receiving terminals), deepwater engineering, FPSO engineering and offshore wind power, and continuously improved the quality of integrated services for energy engineering, and expanded the comprehensive capability and development space.

The Company mainly obtains engineering contracts through general contracting to provide customers with "turnkey" projects. Its business is distributed in more than 20 countries and regions such as major seas in China, Russia, Canada, Brazil and the Middle East. It has successfully completed national-level projects such as "Shenshui-1" and "Haiji-1", successively provided offshore oil and gas engineering services for foreign customers such as Shell, ConocoPhillips, Saudi Aramco and Petrobras, and contracted a number of influential large overseas projects such as Gorgon and Ichthys in Australia, Yamal in Russia, Marjan in Saudi Arabia, Canada LNG and Hong Kong LNG. Consequently, the business capacities of the Company are advanced in the world.



ORGANIZATION STRUCTURE OF THE COMPANY



CORPORATE STRATEGY

COOEC always adheres to the road of high-quality development. With the mission of "empowering the world with excellent engineering" and the development orientation of "building a world-class energy engineering company with Chinese characteristics", it highlights the service capacity building of the whole industry chain of "projects + products + services", accelerates industrial transformation and upgrading, strives to promote innovation-driven development, steadily attains internationalization, and enhances modern corporate governance capabilities, so as to move forward to accelerate its growth into a world-class enterprise with global competitiveness.

Strategic Deployment and Key Tasks of COOEC to 2025

Planning and deployment	Key tasks
I. Highlight the capacity building of engineering services	(I) Fully support and guarantee the increase of domestic oil and gas reserves and production (II) Improve and strengthen the value chain of the marine engineering industry
II. Accelerate industrial upgrade	(III) Transform and upgrade traditional oil and gas engineering to high-end products and services (IV) Continue to strengthen LNG engineering, accelerate the development of new energy industries, cultivate the capability of the whole industry chain for general contracting of offshore wind power projects, and explore CCUS and hydrogen energy projects
III. Strive to promote innovation driven development	(V) Break through bottlenecks in key and core technologies of technological innovation (VI) Realize top-level design to accelerate the implementation of digital transformation strategy (VII) Cooperate with platforms to achieve substantial results in the construction of "digital COOEC"
IV. Steadily promote international development	(VIII) Lead the market, and strengthen the three regional platforms (IX) Take various measures to enhance the international operation control capacity (X) Integrate into the national regional development strategies and contribute to regional coordinated development
V. Integrate into major national development strategies	(XI) Respond to the Belt and Road Initiative and expand international cooperation (XII) Implement the national requirements on "peak carbon dioxide emission and carbon neutrality" to achieve green development





STAKEHOLDERS

COOEC assumes social and economic responsibilities to all interested parties, including employees, shareholders, customers and relevant partners. The Company learns about expectations and suggestions of all parties in a timely manner, pays great attention to the impact of the external environment and market changes on the Company and to the relevant reports published by the media, so as to ensure the smooth communication with its interested parties and the normal production and operation, and avoid any circumstance that damages the rights and interests of the interested parties.

Interested parties	Expectations and Requirements	Communication and Response
Shareholders and investors	Satisfactory return on investment, good market value level and continuous and steady operation	Promote the transformation and development, enhance the profitability; improve the corporate governance system and strengthen the overall risk management; strengthen the management of information disclosure and actively manage investor relations
Customers	Technological innovation, quality service, and customer privacy protection	Make use of technical advantages to provide quality products; adopt a refined management; conduct customer satisfaction surveys and collect customers' opinions and suggestions; and protect the information of customers
Employees	Protect the rights and interests of employees, promote career development and establish a good corporate culture	Ensure equal and fair employment of employees; improve the remuneration and promotion mechanism, strengthen employee training and education, clear career development channel; and enhance employee care
Government	Serve the real economy, pay taxes in accordance with the law, actively promote employment and improve people's livelihood	Optimize resource allocation and implement national policies; actively pay tax in accordance with laws and regulations; provide employment opportunities; and promote rural revitalization
Regulatory bodies	Compliance management and fair competition	Strengthen compliance and integrity operation; improve corporate governance and strengthen internal control management
Partners	Win-win cooperation, common development, resource sharing, and long-term sustainable development	Insist on honest operation; establish a strategic cooperation mechanism with partners; drive partners to fulfill social responsibilities; promote the sustainable and healthy development of the industry chain 展
Communities	Promote the development of public utilities, volunteer services, charity activities, and participation in social welfare undertakings	Drive community economic and social development through enterprise operation; strengthen environmental protection; and carry out public welfare activities
Media	Obtain news clues and participate in normal interviews and reports	Organize media interviews; and release information to the public media

KEY PERFORMANCE INDICATORS

**Environmental performance:** In 2022, based on 92 energy conservation and efficiency improvement measures, we achieved the total energy conservation of 4,183 tons of standard coal, the carbon reduction of 11,425 tons of carbon dioxide, the comprehensive energy consumption of 0.07 tce/ RMB 10,000 output value and the carbon emission of 0.1895 tCO2e per RMB 10,000 output value, which successfully completed the energy conservation and carbon reduction indicators from the local government.

**Safety performance:** In 2022, the Company invested more than 86.8 million man-hours, with year-on-year increase of 25.6%, and the lost time event rate was 0.0023, with year-on-year decrease of 20.7%.

**System construction:** In 2022, the Company accelerated the construction of modern enterprise systems for the purpose of rapid market response. Systems of the Company were reduced from 370 to 287, with a reduction rate of 22.4%. A total of 232 business processes have been optimized, and 173 approval authorities have been adjusted, giving all units the independent operation right.

**Technological innovation:** In 2022, the Company carried out 119 key scientific research projects focusing on deepwater and underwater systems, and promoted the transformation of 295 achievements. Tianjin Intelligent Manufacturing Base was officially put into operation, achieving the first breakthrough in the transformation from "traditional factory" to "intelligent factory".



恩平浮托现场



# CORPORATE GOVERNANCE

- Corporate governance system
- Risk management
- Information security
- Compliance operation
- Audit and supervision
- Anti-corruption



▲ Enping floating support site

## CORPORATE GOVERNANCE SYSTEM

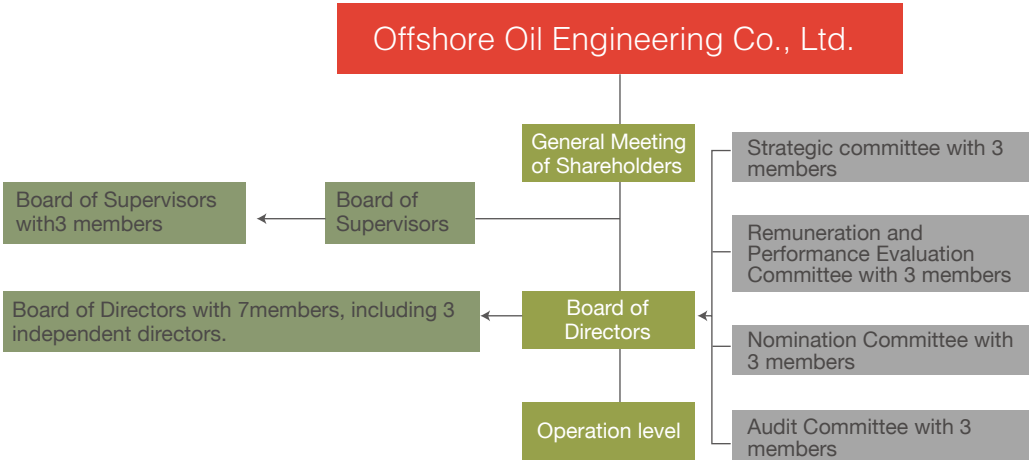
COOEC has prepared a set of normative documents with respect to the corporate governance in strict accordance with the Company Law, the Securities Law, the Guidelines for the Governance of Listed Companies, the Rules Governing the Listing of Stocks on Shanghai Stock Exchange and other laws and regulations, and in compliance with the requirements of the China Securities Regulatory Commission, Shanghai Stock Exchange and other regulatory bodies, such as the Company's Articles of Association, the Rules of Procedure for the General Meeting of Shareholders, the Rules of Procedures for the Board of Directors, the Rules of Procedures for the Board of Supervisors, the Working Rules of the President, the independent director system, the information disclosure and investor relations management system, the investment management system, which constituted a systematic corporate governance framework, established a clear corporate governance structure and formed a scientific and effective mechanism for division of responsibilities and balance.

The Company has always strictly complied with the requirements of the Company Law, the Securities Law, the Rules Governing the Listing of Stocks and the Rules of Procedure for the General Meeting of Shareholders, as well as relevant requirements in respect of meeting calling and convening, meeting proposals, procedures, voting and information disclosure to ensure that all shareholders, especially minority shareholders, fully exercise their legitimate rights and interests and enjoy equality. The Company has invited lawyers to attend each general meeting to confirm and witness the convening procedures, deliberations and identities of the attendees, and to issue legal opinions, so as to effectively ensure the legality and validity of the general meeting of shareholders.

## CORPORATE GOVERNANCE

In 2022, COOEC revised, improved and issued 21 corporate governance systems in strict accordance with the norms for listed companies and the governance requirements for state-owned holding companies, which organically integrated the regulatory requirements for listing with the regulatory requirements for state-owned assets to strengthen the corporate governance and the comprehensive risk management and control, further promote the construction of anti-corruption and clean governance, so as to feasibly maintain the smooth operation of the Company. Each decision-making body assumed and performed its duties properly, and coordinated with each other in operation for balances.

On the basis of improving the governance structure, the Board of Directors exercised its rights in accordance with laws and regulations and granted authorities in a scientific and reasonable manner, strictly controlled risks, gave full play to its role in "determining strategies, making decisions and preventing risks", effectively improved its decision-making efficiency and continuously promoted the modernization of the corporate governance system and capacity. At the same time, the Board of Directors actively implemented the Opinions of the State Council on Further Improving the Quality of Listed Companies, formulated and implemented the Implementation Plan of the Company for Improving the Quality of Listed Companies as required. As a result, the Company deepened reform and promoted development by using the capital market, and took various measures to improve the quality of listed companies, so as to ensure the healthy, stable and sustainable development.





RISK MANAGEMENT

The Company continued to improve the organizational structure of the internal control system, and enhance the functions of departments at all levels. The Board of Directors of the Company was responsible for the establishment, improvement and effective implementation of the internal control. the Board of Supervisors was responsible for supervising the establishment and implementation of the internal control by the Board of Directors. The managers was responsible for organizing and leading the daily operation of the internal control of the Company. The Planning and Development Department was responsible for the organization and coordination of the establishment and improvement of the institutional system. The Audit Department supervised and inspected the effectiveness of the internal control, and reported the internal control defects found in the inspection to the Board of Directors.

The Company’s Committee of Legal Construction, Internal Control, Compliance and Risk Management has been additionally assigned with the functions related to law-based construction and compliance management to better integrate law-based construction, compliance management and risk management into corporate governance. Taking the opportunity of the "two systems and one contract" reform, the Company deepened the organizational reform, adjusted the internal control and risk management functions from the original Audit Department to the Planning and Development Department, so as to further strengthen the top-level design of the internal control system and achieve perfect coordination with the Company’s strategy. At the same time, internal control and risk management positions have been set up in the corresponding business departments of the subordinate units to promote the effective play of the internal control and risk management functions and ensure the effective connection of functions at upper and lower levels.

RISKS FROM OIL PRICE FLUCTUATION

Risk description:

Since 2022, due to changes in the international situation and the continuous and repeated impact of the COVID-19 epidemic, oil prices have been on the rise, especially due to the impact of the war in Ukraine, and the international oil price is likely to fluctuate greatly. International upstream oil and gas investment will also be directly affected by oil price fluctuations, so the Company needs to take appropriate measures to prevent the impact on the Company's market development and project management.

Countermeasures:

1. Monitor changes in oil prices and pay attention to market information. Avoid dangerous and chaotic areas. Put main focus on the source of market information with the recovery of oil prices, and never participate in and track projects in high-risk countries in principle according to the Company's requirements.

2. Formulate market development strategies. Dynamically optimize the Company's 33 market development paths, dynamically track, manage and distribute market development information, intensify market development efforts to ensure the realization of the Company's annual market development indicators. Focus on key customers and key projects, and enhance the value contribution to major customers by centering on the construction of general contracting capacity.

(3) Innovate the assessment and incentive mechanism. Clarify the management responsibilities of the subordinate unit for the project within its responsibility scope, focus on tracking the project progress, ensure the increase in reserves and production, and improve the guiding role of assessment in the Company's operation.

▼ Lingang site



ASSESSMENT RESULTS OF THE COMPANY'S MAJOR AND IMPORTANT RISKS IN 2022

According to the analysis and judgment of the Company's internal and external environment in 2022, all units preliminarily identified 62 corporate-level risks, and finally determined 7 major and important risks of the Company in 2022 after evaluation and deliberation, including 5 high risks: operation risks of overseas projects, risks from oil price fluctuation, risks of major safety, environmental protection and quality accidents, compliance risks and information security risks; 2 medium risks: risk of the impact of COVID-19 on the Company's production and operation, and risk of legal disputes. In view of the above major risks, the Company has developed response strategies to various degree and required specific responsible units for implementation.

Name of risk category			Risk scoring			Response strategy	Responsible unit	Cooperating responsible unit
Level 1	Level 2	Level 3	Score of occurrence likelihood	Score of influence degree	Total score			
Market risks	Project operation risk	Operation risks of overseas projects	5	5	25	Decrease	Engineering Project Branch International Engineering Company	Overseas project team
Operation risks	Market competition risk	Risks from oil price fluctuations	4	5	20	Decrease	Market Operation Department	All subordinate units and departments of the headquarters
	Risks of maintaining social harmony and stability	Risk of major safety, environmental protection and quality accidents	4	5	20	Reduce, avoid	QHSE Department	All subordinate units and departments of the headquarters
	Information risk	Information security risk	3	5	15	Decrease	Science and Technology Information Department	All subordinate units
	Risks of maintaining social harmony and stability	Risks of COVID-19 on production and operation	3	4	12	Decrease, avoidance	Market Operation Department and QHSE Department	All subordinate units and departments of the headquarters
Legal risk	Legal risk	Compliance risk	4	4	16	Decrease	Legal and Compliance Department	All units of the headquarters and related entities
	Legal risk	Risk of legal disputes	3	4	12	Decrease, avoidance	Legal and Compliance Department	All subordinate units and departments of the headquarters

INFORMATION SECURITY

With the construction of "intelligent COOEC" as the goal, the core business as the carrier, the deep integration between the new generation of information and digital technology and the business as the path, and the digital transformation as the main line, COOEC has promoted the Company's cybersecurity work to a new level and realized the leap from the traditional management mode to modernization, digitalization and intelligence.

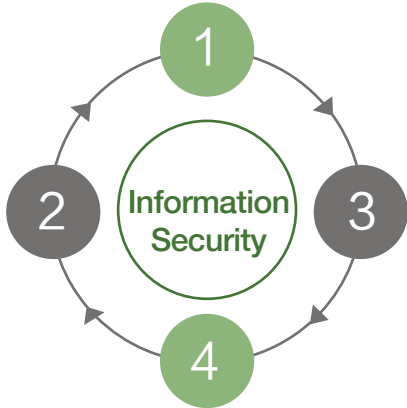
In 2022, COOEC continued to strengthen the construction of data information protection system, prepared and released the Company's Data Management Measures, identified rights and responsibilities for data, clarified the data security responsibilities of all units, enhanced the security management throughout the whole life cycle of data, and prevented and reduced the risk of data security incidents due to insufficient data security awareness and security protection. The Company also promoted data governance, carried out the inventory of the Company's global data assets and formulated data standards, prepared, reviewed and approved the Top-level Design of Data Governance of COOEC, and coordinated the Company's data governance and data asset management. In addition, it carried out the construction of the data leakage prevention system, completed the planning, implementation and launch of the system and preliminarily established a data leakage prevention system to realize the functions of sensitive information inspection and external distribution review of data, and consolidate the data information protection capacity.



COOEC IMPLEMENTED THE FOLLOWING CYBERSECURITY TASKS:

Firstly, clarify the main responsible person for cybersecurity, specify that the main principal of each unit shall be mainly responsible for the cybersecurity from top to bottom to define the main cybersecurity responsible person level by level.

Secondly, adhere to the principle of "unified planning, hierarchical management, active defense and comprehensive guarantee", establish a normalized working mechanism for major meetings (holidays) guarantee, risk assessment, monitoring and early warning, emergency guarantee, incident notification, cybersecurity assessment and others to effectively enhance cybersecurity organization and management capabilities.



Thirdly, strengthen the capability of network security protection in key fields, continuously promote the rating, evaluation and rectification of information systems, organize and carry out the construction of network and information system security, industrial control security protection and terminal security management, and continuously improve the hierarchical and layered network security defense-in-depth system.

Fourthly, carry out the construction of OSSEC security operation center (SOC) under the unified guidance of the Company, with focus on "knowable threats, controllable emergencies, reliable services and visible management and control" to realize security data analysis, security system integration, emergency disposal of incidents, security supervision and management and centralized risk control, and enhance the Company's cybersecurity situation awareness and active defense capability.

INFORMATION SECURITY RISK

Risk description:

Users have weak awareness of cybersecurity, which poses a great threat to the Company's cybersecurity and may cause risks such as data loss and theft. Terminals and information systems have security risks and are prone to be attacked by hackers, resulting in data leakage or ideological security risks. Due to the serious lack of cybersecurity and professional technical personnel, the Company is relatively weak in cybersecurity guarantee and service capacities with great security risks.

Countermeasures:

- 1. Strengthen training, notification, publicity, implementation and learning. Establish a normalized working mechanism, enhance cybersecurity awareness training and publicity, organize a cybersecurity training for all units and departments on a quarterly basis, and promptly issue cybersecurity risk briefings to all units for publicity, implementation and learning, so as to avoid security risks.
- 2. Strengthen the security of terminals and information systems, formulate relevant technical standards and implement monitoring through technical means.
- 3. Improve the Company's information security management system, strengthen the access authority management of important business systems, regularly review system accounts to avoid improper authorization or unauthorized accounts and prohibit the cross operation of incompatible job user accounts, and comprehensively use firewall and other cybersecurity equipment, vulnerability scanning, intrusion detection and other software technologies, remote access security strategies and other means to strengthen cybersecurity and prevent attacks and illegal intrusions from the network.
- 4. Take encryption measures for confidential or critical data transmitted through the network to ensure the confidentiality, accuracy and completeness of information transmission. Introduce domestic alternatives as soon as possible, and connect with API interfaces such as domestic authentication system and mail system in terms of security authentication to realize two-factor authentication and improve security.
- 5. Optimize the existing organizational structure and increase professional technical personnel. Establish the information technology center of COOEC to strengthen the construction of cybersecurity and key technical teams and talent teams, so as to meet the future business development needs of the Company.

▼ Tianjin LNG Phase II receiving station project





COMPLIANCE OPERATION

In 2022, COOEC incorporated the strengthening of compliance operation into the Company's strategic development plan (by 2025) and the annual key work of the Company's leaders for overall promotion. The Company focused on the work deployment for the "Compliance Management Strengthening Year", deepened the construction of law-based state-owned enterprise and enhanced the compliance management measure to effectively prevent and control risks and guarantee the Company's deepening reform and high-quality development.

The Company organized 12 headquarters departments and 12 subordinate units, including 3 overseas regions, to conduct comprehensive self-examination on compliance risks and violations in their own business areas. Upon investigation, the Company's business operations and specific behaviors complied with the requirements of the central government, laws and regulations and regulatory provisions, and there were no risks and problems of sanctions or restrictive measures imposed for violation of international rules, no cases, matters and risks subject to criminal and administrative investigations or punishments for violation of laws and regulations and regulatory policies in China or other countries and regions, and no risks and problems in violation of state-owned assets supervision requirements.

RESULTS OF THE "COMPLIANCE MANAGEMENT STRENGTHENING YEAR"

1

The Company clarified the compliance management functions of the Board of Directors and the Committee of Legal Construction, Internal Control, Compliance and Risk Management, and that the General Counsel concurrently serves as the person in charge of compliance management. It set up a compliance management post in the Legal and Compliance Department, with two full-time compliance management personnel. All departments and subordinate units of the Company designated 24 contact persons for compliance management in total. The Company built three lines of defense for compliance management, with the Legal and Compliance Department as the lead department for compliance management, all relevant departments and subordinate units, subsidiaries and branch companies as the special departments for compliance management, and the Audit Department as the supervision and evaluation department for compliance management, and completed 84 specific compliance management tasks in 12 aspects for all departments and subordinate units.

2

The Company focused on 51 issues including safety management, cost control, grassroots team building and digital transformation on the basis of improvement of grassroots basic management, systematically formed the "1+8+12" diagnosis report and 77 improvement measures, which effectively improved its standardized management level. The Company sorted out the compliance obligations as well as the laws and regulations involved in the Company's business to generate a List of Policies, Regulations and Compliance Obligations, and prepared the Response Form for Compliance Risk Analysis and Assessment for the identified compliance obligations, which graded all compliance obligations, and determined the response or implementation methods to ensure that all compliance obligations have corresponding response methods.

3

The Company formulated the plan of "establishment, reform and abolition" of the internal control systems in combination with the "three system reforms", issued the Optimization Plan for System Construction, reshaped the corporate governance system, internal control system and QHSE system, clarified the functions and objectives of each system, and further refined the compliance requirements for different functions. After the optimization, the number of company-level systems has been reduced from the original 370 to 287, an overall reduction of 22.4%.

4

The Company strengthened the compliance audit. All systems and contracts of the Company were reviewed by the Company's Legal and Compliance Department or the Compliance Management Department of the subordinate unit. Throughout the year, 174 company-level internal control systems and more than 2,000 contracts were reviewed. 76 standard contracts dominated by contracts for procurement of goods, works and services were upgraded.

5

The Company strengthened the overseas compliance management and control, and gradually integrated overseas requirements into rules and regulations of overseas institutions to realize the internalization of foreign regulations, by establishing a database of overseas local laws and regulations, issuing the Guidelines for Compliance Operation for overseas companies, and strengthening the pre-departure education for personnel going abroad. The Company gradually improved the overseas compliance risk prevention and control mechanism by exploring the establishment of overseas compliance demonstration sites, and effectively guaranteed "zero occurrence" of overseas violations.

AUDIT AND SUPERVISION

The internal audit of COOEC shall be led by the Board of Directors and subject to the supervision and guidance of the Board of Supervisors. According to the Audit Law of the People's Republic of China, the Internal Auditing Standards in China and other laws and regulations, the Company's Audit Department independently and objectively carried out internal audit and internal control evaluation, timely provided information from audit supervision to the Board of Directors, and devoted itself to appropriate internal control supervision and control procedures to prevent governance risks.

The Company has a Board of Supervisors consisting of three supervisors, including two shareholder supervisors and one employee representative supervisor. The composition of the Board of Supervisors meets the requirements of laws and regulations. In strict accordance with the provisions and requirements of the Company Law, the Rules Governing the Listing of Stocks on Shanghai Stock Exchange, the Guidelines of Shanghai Stock Exchange No.1 for the Application of Self-Regulatory Rules for Listed Companies - Standardized Operation, the Articles of Association of Offshore Oil Engineering Co., Ltd. and other relevant laws and regulations, the Board of Supervisors prudently, faithfully and diligently performed its duties, circumspectly exercised the rights conferred by the Company and shareholders, practically normalized supervision, paid attention to the Company's operating conditions, actively convened the meetings of the Board of Supervisors and attended the meetings of the Board of Directors and special committees as non-voting delegates, expressed objective and fair opinions on the matters deliberated by the Board of Directors, maintained good communication with the Board of Directors and the management, put forward reasonable suggestions for the healthy and steady development of the Company, and contributed supervisory value to the maintenance and appreciation of the Company's assets.

RESULTS OF INTERNAL AUDIT AND SUPERVISION

1. The Company formulated the annual audit plan oriented by problems, risks and strategies, and organized the implementation of economic responsibility audit, project process audit, construction project settlement audit, special audit and other audit projects. The Company organized and carried out the annual internal control evaluation in accordance with the requirements of the Shanghai Stock Exchange, and disclosed it to the public according to the procedures.
2. The Company continuously extended the audit coverage through the continuous promotion of audit projects to effectively cover the key fields and links. The Company insisted on the unification of problem disclosure and problem solving, strengthened source rectification to further consolidate grassroots basic management, promoted the improvement of internal control and risk management as well as the establishment of a stable corporate internal control governance environment, so as to achieve effective corporate governance and ensure the realization of corporate strategic objectives.
3. The Company convened four meetings of the Board of Supervisors in 2022 to deliberate the Company's periodic reports, internal control evaluation reports, use of raised fund and other important matters, and issue written review opinions on the regular reports prepared by the Board of Directors. Supervisors actively attended the general meeting of shareholders, the meetings of the Board of Directors and special committees under the Board of Directors, and paid close attention to the performance of duties, financial status, project operation, cost reduction and efficiency improvement of the Board of Directors and management of the Company; conducted on-site research on Tianjin Intelligent Manufacturing Base, and put forward improvement suggestions, which gave full play to supervision functions, and feasibly safeguarded the legitimate rights and interests of the Company and all shareholders.

ANTI-CORRUPTION

In 2022, COOEC focused on promoting the construction of "three anti-corruptions" system and mechanism in an integrated manner in the anti-corruption work, systematically promoted 40 tasks, specified the supervision responsibilities of party organizations and leaders at all levels, and carried out 11 special rectification tasks. The Company issued two systems related to the construction of the Party style and clean governance, formulated 11 important work plans and implementation mechanisms, prepared a list of integrity risks for 1,446 key positions to strengthen the risk prevention and control, and build an integrity risk prevention and control mechanism. Through various forms of training such as "anti-bribery, anti-corruption and compliance training in engineering field", the Company has improved the compliance management awareness of the leadership, and clarified the key points of the crime of offering and accepting bribes, criminal consequences and punishment measures for the majority of employees.

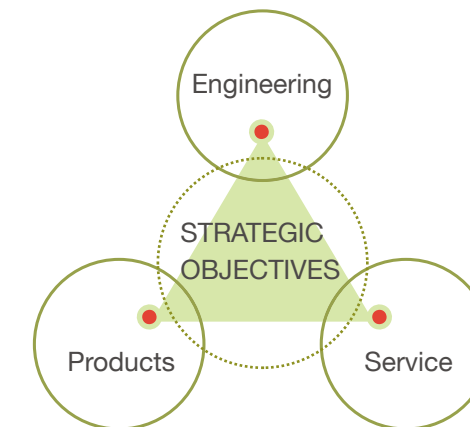


# PRODUCTS & SERVICES

Product quality  
Customer service  
Technological innovation  
Supply chain management  
Work safety



▲ Kenli 6-1WHPF platform



## PRODUCTS & SERVICES

In 2022, COOEC built a new development pattern by adhering to the strategic direction of "projects + products + services" to promote the optimization and upgrading of its industry chain. The Company expanded the mode and scope of engineering services, shifting from focusing on construction services to EPCI general contracting services in the international market to enhance the ability to serve owners, and changing from a traditional contractor to a contractor providing the turnkey solution to increase the value of service to customers. The Company also expanded the mode and scope of product services, and explored the room for product appreciation through the "products + projects" concept, the room for product services through the "products + services" concept and the room for product services through the "products + supply chains" concept. COOEC passed the assessment of "one profit and five rates" in the three system reforms and endowed independent operation rights to all units. As a result, our products and services have become more competitive in the market.

The annual market contract value reached

**25.6** billion yuan

Steel processing volume

**378,000** structural tons

Number of days for ship use

**26,100** days



## PRODUCT QUALITY

The Company firmly adhered to the concept that "quality is the cornerstone for the development of the Company", implemented the policy of quality first, and took multiple measures to promote the construction of quality culture of "Doing It Right the First Time", and solidly conducted the quality management. No quality accident occurred throughout the year and customers were provided with good products and services.

### PROGRESS OF QUALITY IMPROVEMENT

#### I. Carrying out special quality improvement to continuously improve the basic quality management capacity

1. The Company formulated welding quality management regulations for all elements to prevent welding quality risks, prepared 12 full-element control documents by taking into account factors affecting welding quality (welding personnel, welding equipment, welding materials, welding process, environment, monitoring), including the regulations for management of qualification of welders (trial), to further standardize the Company's management on welding quality.
2. The Company established the management specifications for penstocks on offshore platforms to avoid the risk of pipeline leakage, and the quality management specification for penstocks on offshore platforms from the aspects of classification of penstock on offshore platforms, quality control of raw materials, design quality control, prefabrication and on-site construction, cleaning and marking with reference to the national good practice of penstock management.

#### II. Carrying out quality culture construction activities to improve the quality awareness of employees

1. The Company has vigorously improved its quality cultural atmosphere by the National Quality Month activity platform, and planned quality month activities from seven aspects: activity publicity, quality education and training, quality risk evaluation, quality research, quality improvement and quality team activities, quality culture construction, characteristic quality activities, etc. More than 20,000 people have participated in quality month activities after their launch, with a year-on-year increase of 1.3 times, over 10,000 personnel participated in different types of training, more than 400 quality problems were solved and more than 6,000 employees participated in the quality knowledge contest of state-owned enterprise organized by the State-owned Assets Supervision and Administration Commission, which achieved remarkable results and effectively enhanced the quality awareness of all employees.
2. The Company has vigorously carried out QC team activities and created a cultural atmosphere in which everyone participated in the quality improvement. The Company's QC team activities made a new breakthrough, and one achievement won the award of National Excellent Quality Management Team. The Company has applied for the registration of 60 QC teams in total in 2022, which have been completed as planned. We organized and carried out the QC team training in multiple ways to ensure that the personnel participating in team activities understand the process and method of QC team activities, and improve the ability to apply quality tools to solve quality problems.

#### III. Carrying out special quality audits to enhance quality risk control capacity

1. Quality audit of the Marjan Project



The Company has successfully completed quality audit of 50% of the Contractor's progress for the Marjan Project from June to July 2022. The audit covered 16 aspects according to the audit plan, including system planning, personnel qualification and ability, project quality performance, design management, document record control, material management, measuring instrument management, welding management, on-site execution and NDT inspection. 6 problems were found, all of which were improvement items rather than non-conformance items. After the audit, the Company timely prepared the audit report, supervised and urged the audited unit to make rectification in time, so as to ensure the production of the Marjan Project on schedule.

2. Audit on the Company's laboratory

In November 2022, for the Company's two laboratories - the Physical and Chemical Laboratory and the Measurement and Testing Center, quality supervision and inspection were conducted from 17 aspects, including system document management, document publicity and implementation, fairness and honesty management, personnel management, and environment management. A total of 9 problems were found, and the rectification work was completed before December 30.

3. Optimization and improvement of the setting of quality performance indicators for all subordinate units in 2023

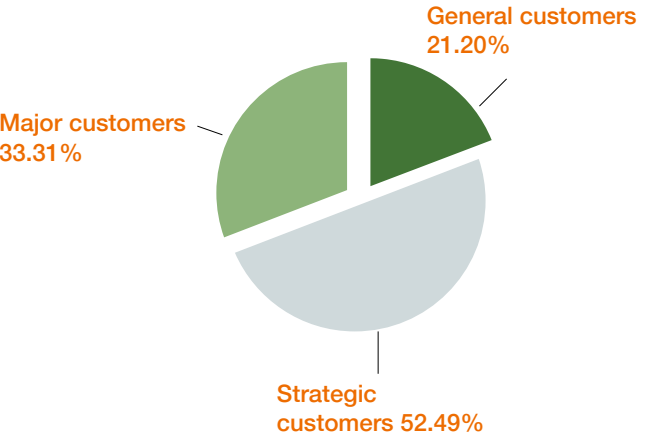
The Company has improved the setting of deduction indicators for all subordinate units in 2023. Four quantitative assessment indicators, including number of new quality cases collected, quality improvement, participation rate of personnel in QC team activities, number of good operation practices consolidated/quality management systems improved, were added, and the setting of positive incentive indicators was improved. Four positive incentive indicators, including participation rate of QC team activities, honor winning, innovation in quality management, and outstanding work, were added.

CUSTOMER SERVICE

In 2022, the customer relationship management of COOEC was advanced in an orderly manner. Under the increasingly fierce market competition at home and abroad, the Company continued to adhere to the management philosophy and service tenet of "customer-centered and customer value realization-oriented", continuously expanded the markets in Europe and the United States, the Middle East and Africa and Asia-Pacific regions, established strategic cooperative relations with a number of domestic and foreign energy companies, engineering companies, subcontractors and suppliers, and continuously improved the depth and breadth of cooperation with key customers. COOEC always insisted on establishing good communication channels with customers, listening to customers, and organizing regular communication on key markets and key projects. COOEC attached importance to establishing long-term and mutually beneficial cooperative relations with key customers. In 2022, four cooperation

agreements were concluded with Shell and other companies based on agreements on business cooperation such as modular construction, green supply chain construction and offshore floating wind power development.

At present, COOEC has established long-term cooperative relations with more than 100 well-known customers at home and abroad, including international well-known energy companies such as SHELL, TOTAL, Saudi Aramco, Petrobras and Qatar Energy, as well as international well-known engineering companies such as JGC, Saipem, SBM and Fluor, which has laid a foundation for the stable development of the Company's subsequent business. The Company always places customer in the first position, and improves customer satisfaction by effectively supervising the implementation and management of projects under construction. In 2022, the customer satisfaction rate of COOEC was 89.48 points, an increase of 10.26% on a year-on-year basis, and the customer stickiness has been increasing.



▲ New office building

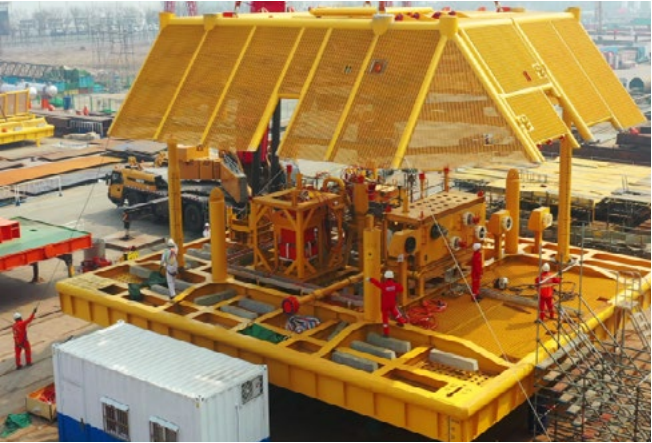


▼ Win-win Cooperation

TECHNOLOGICAL INNOVATION

In 2022, the technological innovation of COOEC focused on the value creation. The reform of technological innovation systems and mechanisms was deepened, and the construction of "four centers" was vigorously implemented. The Company's reform of scientific and technological system was combined with the key technical direction of science and technology planning to perfect the organization and management mode of science and technology projects, and solidly promote the tackling of key and core technologies. The Company officially issued a total of 16 scientific and technological systems, including 1 technology and network information management system, 10 management measures and 5 management rules. The relevant system documents cover business processes such as the establishment management of technological innovation R&D projects, the management of changes in technological innovation R&D projects, and the acceptance management of technological innovation R&D projects.

The Company issued the Measures for Management of Technological Innovation R&D Projects of Offshore Oil Engineering Co., Ltd., the Rules for Management of Technological Innovation R&D Projects of Offshore Oil Engineering Co., Ltd. and the Rules for Management of Science and Technology Project Funds of Offshore Oil Engineering Co., Ltd. At the same time, based on the project leader responsibility system, the Company has developed and formally issued 10 guiding opinions, including guiding opinions on project leader responsibility system, guiding opinions on open competition for project leader, guiding opinions on procurement, guiding opinions on error tolerance and correction, guiding opinions on lump-sum fund system, surplus fund management, and budget management of special funds for R&D center/incubation center.



▲ Underwater Multifunctional Manifold and Underwater Control System

I. Product technology innovation results

1.Demonstration and application of specially innovated underwater oil and gas production system in project

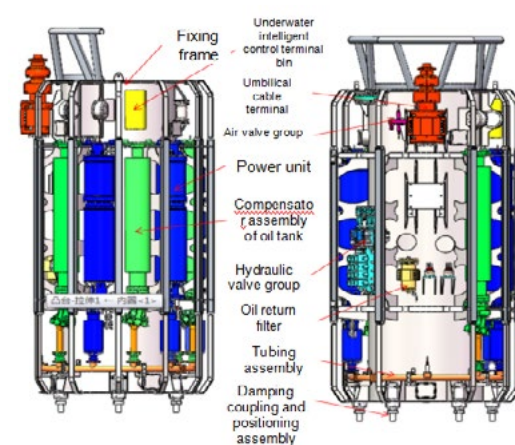
The project has made breakthrough in the engineering technology of 500-meter underwater multi-function manifold and horizontal rigid jumper. The Company, together with domestic units, completed the domestic R&D of 1500-meter horizontal clamp-type underwater connector, underwater multi-phase flowmeter, 500-meter ROV and hydraulic underwater gate valve for the first time. The research achievement is demonstrated and applied in Nanhai Ledong 22-1 Gas Field Development Project, which further promotes the development and application of key underwater products in China. Through independent research, we have mastered



the key technology of 1500m-level underwater system design, and basically gained the ability to design 1500m-level underwater system. Our business covers conceptual design, feasibility study, FEED design/basic design and detailed design.

## 2. Research and development of ultra-deepwater piling hammer system

The project has made a breakthrough in the research of key technology of the overall scheme of ultra-deepwater piling hammer system, of mechanics analysis, vibration control, drive design and pressure compensation of underwater percussive system, and of designing and manufacturing ultra-deepwater motor. The project has completed the design of ultra-deepwater piling hammer, the assembly and load testing of the first deepwater motor, the manufacturing of driving hammer rod forgings and some small and medium parts of hammer body, the welding and heat treatment of the upper and lower cylinder bodies and



▲ Underwater Power Unit of Ultra-deepwater Piling Hammer

welding of the inner and outer layers of the middle cylinder as well as the forging and heat treatment of hammer core and anvil block, and fabrication of 5 key components.

## 3. Equipment for deepwater operation

**Jacket packer:** the Company has completed the demonstration application of active packer in Ningbo 19-6 Project and Bozhong 28-2s Project.

**Emergency recovery device for subsea pipeline:** the Company has completed the R&D of PRT test prototype for 500m-level steel ball type 12-inch subsea pipeline and of the PRT hydraulic control system, the tension, drainage, water balloon receipt and ROV land simulation tests for PRT land test bench, and mastered PRT land test technology, PRT manufacturing and assembly technology and PRT design technology to achieve independence in PRT machining and assembly design.

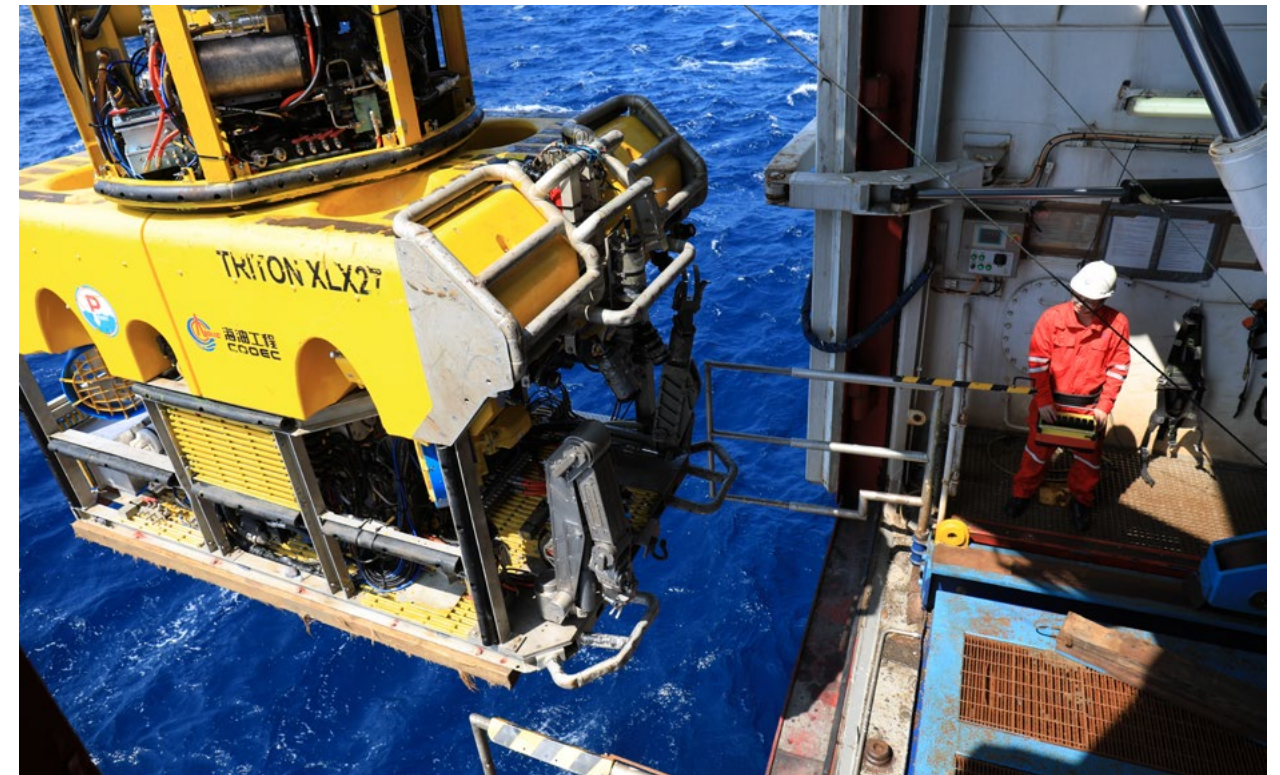


▲ Emergency Recovery Device for Subsea Pipeline

In 2022, the Company launched 69 scientific research projects at or above the Company level in ten technical directions, including fixed platform technology and floating platform technology. Focusing on forward-looking research, bottlenecks, greenness and low carbon, emerging businesses, intelligence, cost reduction and efficiency improvement, the Company carried out 191 scientific research projects and invested RMB1.12 billion in research and development, thus providing effective support for its production and operation tasks.

### Major scientific research projects:

1. Special Research Project for Lingshui Semi-submersible Production Platform
2. "Special Project for Engineering Demonstration Application and Innovation of Underwater Oil and Gas Production System" of Ministry of Industry and Information Technology
3. Phase I Research on Key Technologies in Tower-type Single-point Mooring System Engineering Design of Research on Key Technologies for Single-point Mooring System
4. Phase I Research on Key Technologies and Engineering Demonstration Application of Float-type Internal Turret Single-point Mooring System of Research on Key Technologies for Single-point Mooring System
5. "Research and Development of Ultra-deepwater Piling Hammer System" of Ministry of Industry and Information Technology
6. "Research and Application of Engineering Technology for Thermal Recovery of Heavy Oil"
7. Equipment for Deepwater Operation
8. Research and Demonstration Application of Key Technologies for Design, Construction and Installation of Deepwater Jacket



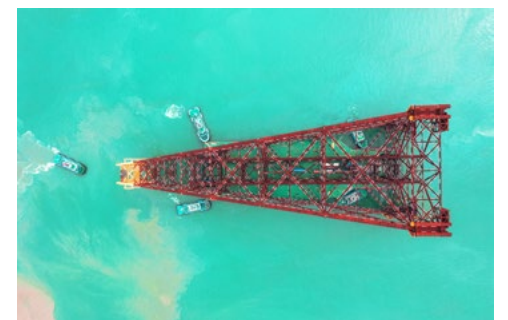
▲ ROV Operation Site

## II. Achievements of cost reduction and quality and efficiency improvement driven by science and technology

In 2022, COOEC organized and promoted the transformation of 295 achievements in the whole year, aiming at building the national strategic scientific and technological force and the capability of tackling key and core technologies. Major technological achievements such as key technology of deepwater jacket, key construction technology of cylindrical FPSO, single-point mooring device, deep-sea floating wind power platform engineering technology have been successfully applied to Lufeng, Penguins, Liuhua and other engineering projects, realizing the transformation of scientific and technological achievements into economic benefits.

### 1. Asia's first 300m deepwater jacket platform

Haiji-1 set a new record for China's single offshore oil production platform with a total height of 340.5m and a total weight of more than 40,000 tons. According to the design of severe sea conditions with a one-hundred-year return period, the Company has overcome a series of world-wide problems such as submarine giant sand waves and ridges and the design, construction and installation of super-large structures, innovatively applied two advanced technologies first in the world and 21 first in China, and realized the all-round improvement of deepwater jacket design and construction technology from basic theory, structural form, design concept, construction process to operation and maintenance, marking that China has fully mastered the complete set of key technologies of independent research and development for the manufacturing and installation of deepwater super-large jacket platform equipment and started a new resource development mode of 300-meter-level deepwater oil and gas fields in China. Haiji-1 is of great significance for guaranteeing national energy security and enhancing the capacity of deepwater resources development.



▲ Aerial View of Installation Site of Haiji-1





▲ Construction Site of Haiji-1

Asia's first  
**300<sub>m</sub>**  
deepwater jacket  
platform

Largest and most  
intelligent independently  
built cylindrical  
**FPSO**

China's first independently  
constructed  
**500<sub>m</sub>**  
underwater multi-functional  
manifold system was delivered

## 2.Independently built cylindrical FPSO with the largest scale and the highest degree of intelligence

Penguins cylindrical FPSO has an oil storage capacity of 400,000 barrels, a crude oil processing capacity of 12.75 million barrels per year and natural gas processing capacity of 1.24 billion cubic meters per year, which can meet the gas consumption of 3.3 million households for a year. Its overall height is 118 meters, equivalent to that of a 42-storey residential building. The total weight is about 32,000tons, and the total operating weight is 88,000 tons. The ship is composed of more than 1 million components, and contains 217 sets of large machinery equipment and more than 17,000 sets of equipment facilities. The minimum equipment spacing is less than 10 mm. COOEC has overcome construction problems such as ultra-high precision installation of the fair leader and hoisting and integration in narrow spaces, made breakthrough in 5 technologies applied for the first time in China, realized over 20 process innovations, and achieved the world's advanced level in integration speed and accuracy. The delivery of Penguins FPSO marks that China has fully mastered the construction, integration and assembly technologies of all ship-type floating production storage and unloading units, which adds glories to the golden business card of high-end "Made in China".

► Penguins Cylindrical FPSO-1



## 3.Successful delivery of the first set of independently developed and manufactured 500m-level underwater multi-functional manifold in China

After 4 years of assiduous research and development, the first set of deepwater multi-functional manifold system independently developed by China is delivered. The manifold integrates 11 domestic key control and monitoring equipment such as underwater distribution units, control modules and routers. It is the first set of 500m underwater manifold engineering product with control system independently developed in China. The successful delivery of the manifold marks an important breakthrough in the independent R&D, design, manufacturing and testing technologies of China's offshore oil and gas underwater production equipment. This achievement has been demonstrated and applied in Nanhai Ledong 22-1 gas field development project, which further promotes the development and application of key underwater products in China. Through independent research in this project, the Company has mastered the key technologies and basically developed the ability of 1,500m-level underwater system design. The business covers conceptual design, feasibility study, FEED design/basic design, and detailed design.



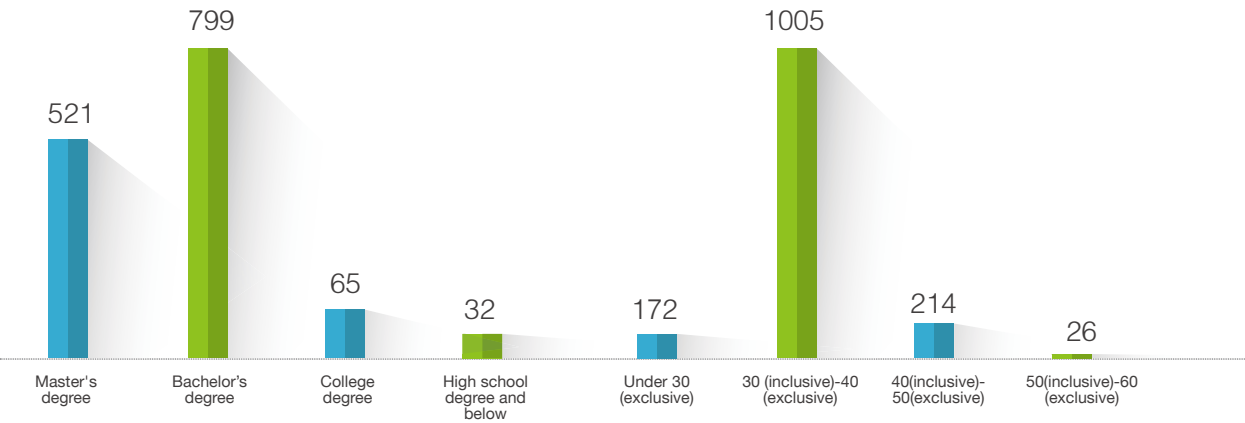
▲ Movement of Haiji-1 by Hoisting



III. Number and structure of R&D staff

Presented by educational background and age

Number of R&D staff	1417
Proportion of R&D staff to the total number of employees in the Company (%)	15%
Educational background of R&D staff	
Educational background	Number of employees in this category
Master's degree	521
Bachelor's degree	799
College degree	65
High school degree and below	32
Age of R&D staff	
Age	Number of employees in this age range
Under 30 (exclusive)	172
30 (inclusive)-40 (exclusive)	1005
40(inclusive)-50(exclusive)	214
50(inclusive)-60 (exclusive)	26



IV. Top-level design of digital transformation

In order to effectively act as a "leader" in the national marine engineering equipment manufacturing industry, play a leading and demonstration role, and promote the high-quality development of the industry, the Company has taken digital intelligent upgrade and transformation as the main line to promote digital management, so as to achieve "internal support for excellent operation, external promotion for open interconnection", and inject new impetus into the production, operation management and industrial transformation and upgrade of the Company.

The Company has completed the top-level design of digital transformation, and made deployments in accordance with the overall blueprint of "1832" for digital transformation. In 2022, the Company promoted the implementation of key digital transformation projects such as engineering project management platform, collaborative design platform and Lingang intelligent manufacturing, achieved phased results, and promoted the establishment of projects in 2023 such as market development, collaborative design, supply chain management, promotion of intelligent manufacturing in Qingdao, digital installation and integrated commissioning. The Company has been fulfilling the key tasks of top-level design for digital transformation in an orderly way.

The Company has strengthened the planning for digital transformation of its subordinate units, organized and carried out the research on the implementation strategies of its digital transformation by focusing on business development strategies, refined and improved the digital development vision, objectives and blueprints by benchmarking against world-class and advanced cases, executed the implementation strategies in combination with the key tasks of the Company's top-level design, and formed its digital development tasks and projects to guide specific digital transformation work of subordinate units.



▲ Intelligent Factory



SUPPLY CHAIN MANAGEMENT

COOEC adheres to the functional orientation of "supply guarantee, cost reduction, compliance and efficiency", takes the goal of "building an image, establishing a new style, taking actions and creating value" as the main line, so as to enhance the awareness of compliance management, improve the supply chain system, deepen the category construction, enhance the resilience of the supply chain, intensify the informatization construction, improve the warehousing management level, make new breakthroughs in the procurement capacity building and comprehensively reinforce the professional quality of the procurement team.

I. Enhancing the awareness of compliance management

1. Reshaping the supply chain management system. The Company has identified applicable laws and regulations, comprehensively investigated loopholes and weak links in the supply chain system, identified and optimized 42 management processes and 16 risk points, and formulated 39 preventive measures, thus forming a complete supply chain system with "clear rights and responsibilities, efficient decision-making, controlled risks and closed-loop management". The Company has understood key management and control matters, clarified responsibility interfaces and standardized procurement processes, in order to effectively prevent human intervention and enhance the ability to prevent and resolve major risks.
2. Strengthening the management and control of objections and complaints. By strengthening the preparation and review management of tender documents, the dispatch and management of tenderee representatives, and the establishment and implementation of the review mechanism of bid evaluation reports, the Company has effectively reduced objections and complaints and enhanced the response and handling capabilities. 8 objections were replied in 2022, a decrease of 88% over the same period in 2021; and 2 complaints were replied, none of which was established, suggesting a decrease of 60% over the same period in 2021. By strengthening standardized document management and optimizing procurement processes and approval paths, procurement efficiency was increased by 7% compared with the same period in 2021.
3. Cancelling ship agencies. Under the premise of ensuring the normal production, the Company has formulated and precisely applied the implementation strategies to cancel ship agencies in four situations. As a result, the Company has cancelled the agencies for 52 ships, introduced 13 shipowners for direct contract signing, and established a direct contract signing mechanism for strategic cooperation with the Salvage Bureau, Rescue Bureau, CCCC, COSCO and other large shipowners.

II. Strengthening supply chain construction

1. Deepening the achievements of category construction. By means of annual procurement plan + quarterly rolling, the Company has promoted the cross-project and cross-module integration of the same type of demand on the premise of meeting production needs, and carried out the construction of five batches of categories. During the first four phases, 434 category construction projects were completed, with a completion rate of 98%. In the fifth batch covering deepwater, South China Sea and new energy projects, 46 category strategy construction projects were completed. Through category construction, the Company cancelled the agencies for 57 items, involving 67 agents, and the amount of annual demand satisfied by orders through category construction accounted for 72%.
2. Promoting the construction of resource pool. The Company has prepared and completed the top-level design scheme for the management and construction of production resource pool, and deeply sorted out and analyzed the measures to be improved in all links of supply chain construction from the perspective of the overall supply chain, coordinated the demand plan, production plan, procurement plan and cost plan, built the ability to acquire resources for sustainable development, and realized the co-construction and sharing of self-owned and external resources. Based on the industrial alliance, the Company has accelerated the promotion of resource sharing among the whole industry chain, assisted lean production management, strengthened the integrated management of production and procurement, and enhanced the release of the Company's capacity under the factorization.



3. Strengthening the supplier management. The Company has organized and carried out supplier performance evaluation against 520 suppliers, collected and evaluated 1,593 copies in total, and officially launched the supplier evaluation module, and prepared the Supplier Compliance Management Guide, identifying 9 risk situations and specifying audit standards and nodes, and clarifying the audit posts.
4. Promoting the construction of green supply chain. The Company has prepared the Action Plan for the Development of Procurement Green Supply Chain, specifying 6 major tasks and 22 measures. It conducted research on the green development of suppliers and continuously promoted the certification of demonstration enterprise of green supply chain management. At present, internal evaluation and third-party evaluation, and application have been completed.

### III. Exploiting the potentialities of cost reduction and efficiency increase

1. Strengthening cost reduction in procurement. The Company has adopted the 1+N validity period model to further enhance the resilience and stability of the supply chain through the use of main and auxiliary contracts; strengthened the control on the demand side, given priority to the use of category agreements to the flexible and practicable application of category construction results through reasonable split/integration of procurement items.
2. Reducing the inventory pressure. The Company has launched and applied the WMS system in Qingdao, Tianjin and Shenzhen, established a reward and punishment mechanism for inventory utilization and improved inventory utilization through informatization and assessment means; set up a long-term material appraisal mechanism, made innovation in the material disposal mode, and introduced the Ali network bidding mode. Consequently, the effect of inventory control was significant, and the target requirements for all indicators were satisfactorily met.
3. Promoting the production procurement from the project dimension. The Company has implemented the factory material management and the storage of 6 kinds of materials, managed the main structural steel as a whole at the organizational dimension, identified the demands for 7 batches at the Company level by 1+3 rolling demand forecast, and accomplished 6 times of capacity negotiation and coordination with steel mills under the main and auxiliary spare parts agreement through the overall management to ensure the smooth construction of the project during the peak period. For piping materials, business negotiations with suppliers of 5 highly consumable materials for stocking have been completed, and the stocking mode by factory was adopted.
4. Establishing a production procurement budget management mechanism. The procurement plan was linked with the production procurement budget, and the demand plan and the cost plan were planned as a whole, so as to reduce uncertainties, ensure the orderly production and further expand the Company's production capacity.



## KEY TASKS AND FOLLOW-UP WORK PLAN IN 2023

### I. Supply guarantee - stabilize production and supply, and give full play to the procurement value

1. Continuously promote the construction of resource pool. Deeply sort out the list of self-owned and external demands of each unit, evaluate the utilization of resources, establish the management mechanism and linkage mechanism of standard demand plan, production plan, procurement plan and cost budget, and solve the contradiction between supply and demand.
2. Strengthen production and procurement budget management. Track and manage the implementation of production procurement budgets of all units on a monthly basis, and accelerate the system connection and integration of production and procurement budget management with the Company's operating budget and financial budget management.
3. Accelerate the development of industrial alliances. Improve the alliance development plan, build an integration and exchange platform from the aspects of collaboration with industry chains, talent development and industrial technical standards, cooperation on research and development and market segmentation, etc., and promote the vertical extension of technologies, policies, localization and others to the industry chain. Gradually and systematically sort out the category tree resources of the market industry chain on the basis of integration, and form an industry chain map covering important category resources. Try to promote the supply model of joint storage and joint stocking, and continuously improve the stability and resilience of the supply chain.
4. Conduct public bidding with the amount of below RMB 10 million. Enhance the capability of public bidding, actively explore the possibility of revenue increment through bidding agency, integrate the demand information of the industrial alliance and the system by the scale advantage of the industrial alliance, and enhance the ability to control supply chain resources by scale benefit.

### II. Cost reduction -- establish standards, control costs, and strengthen the ability to control costs

1. Standardization of the Bohai Oilfield Project. Identify the standardization achievements of all sectors, and form a list of procurement category construction while promoting factorization. Continue to promote the stocking of materials, and increase the stocking quantity and coverage of general materials.
2. Localization of standards for materials and equipment. Comprehensively generate a list of alternative national standards or degradable standards for materials and equipment standards from the starting point of 490YB high-strength H-beam, develop work plans and schemes, connect with the supply side in key areas and batches, so as to enrich category resources.
3. Whole-process material management. Strengthen the service and management functions of warehouse materials management, and release the value of materials management. Promote the whole-process management of materials and equipment by strengthening the whole-process management of materials and equipment, and establish the tracking management mechanism for distribution and use to improve the management of margin and surplus materials. Implement hierarchical management of materials at 12 links and 34 key management points to further structure company-level material management matrix, and promote the improvement of material management capabilities.

### III. Compliance - Build a positive vibe, control risks, and strengthen compliance management capabilities

1. Accelerate informatization construction. Match with the objectives of intelligent supply chain construction, systematically implement the phase I to promote the construction of the digital management platform of the supply chain. Establish an automatic data flow platform for the whole process from the demand side to the supply side through data standardization and the construction of the supply chain cockpit, to realize the closed-loop management of the whole business chains of the supply chain, enhance compliance, and promote efficiency improvement.
2. Strengthen procurement abnormality control. Systematically analyze the reasons for procurement abnormalities, and put forward improvement measures in terms of strengthening demand plan management and communication with supply side as well as bidding and bid evaluation management, so as to reduce the number of procurement anomalies and improve the quality of bidding and bid evaluation.
3. Conduct special supervision. Conduct special supervision and inspection on procurement data quality, service agreement execution, material disposal, etc., identify the existing problems and difficulties, put forward improvement suggestions and implement specific improvement measures to continuously improve the capability and level of procurement business.

### IV. High efficiency - reinforce management, promote quality and efficiency, and enable high-quality business development

1. Systematically prepare the Company's top-level planning of the supply chain. Systematically prepare the top-level design and development plan for the Company's supply chain development with the goal of intelligent supply chain management by taking whole-process digital management as the means and strategic procurement and category procurement as the methods, clarify the realization path and plan, and build the procurement capability matching the Company's EPCI general contracting capacity building strategy and development route.
2. Continuously improve procurement efficiency. Establish a semi-monthly tracking mechanism to strengthen the tracking and supervision of outstanding documents; enhance communication with demanding units, constantly identify and summarize factors affecting procurement efficiency, optimize processes, formulate improvement measures, and promote the improvement of procurement efficiency by 10%.



3. Strengthen the construction of procurement team. Establish an incentive scheme for employees to work abroad, call on the majority of leaders and employees to actively participate in the central international development undertakings, and cultivate a number of international supply chain management talents. Intensify the training of young employees, and strengthen the construction of their ability and quality Build a performance assessment system for all employees, and improve employee performance indicators.

## WORK SAFETY

Faced with multiple, complex and severe challenges, the Company adhered to the concept of safe development, the principle of "people first, life foremost", and the policy of safety first. Significant progress has been made in the safety management of projects, contractors, external chartered ships and on-site operations, safety risks were generally controllable, and the work safety management system ran smoothly as a whole.

### RESULTS OF QHSE

#### 1. Reshaping the QHSE management system to meet the development needs of the Company

In more than 360 days of 2022, more than 130 employees spent over 20,000 man-hours in identifying more than 1,400 laws, regulations, industry standards and the Company's requirements, compiling and revising over 1,300 documents, with total words exceeding 620,000. The Company has prepared and released its 2022 QHSE management system with high quality from the organizational and product/business dimensions. The system mainly solves the insufficient foundation, ineffective implementation and other problems of the QHSE management, highlights the legal compliance, highly optimized process, professional management and two-level prevention mechanism, and highly optimized processes to attain smoother business process, clearer responsibility interface, more professional management manual, more efficient document execution and more convenient document query. Furthermore, it strengthens the control function of the headquarters in the form of "consistency to the end", thus improving the operation efficiency.

#### 2. Actively fighting for the consolidation and improvement year based on the "three-year action for special rectification of work safety"

In the past three years, the Company has actually and actively deployed and promoted the completion of 169 job tasks to ensure the effective implementation of all job tasks of the three-year action for special rectification. Based on platforms of Safety Committee meetings (more than 100 meetings for the Company and its subordinate units in total), special meetings (more than 130 meetings for the Company and its subordinate units in total), regular meetings of leaders and monthly meetings, the Company has conducted special analysis and research, deployment, promotion, tracking and supervision, and promoted the construction of safety culture, thus creating a good working environment for the three-year action for special rectification in the whole company with unified thoughts and raised awareness.

In the past three years, the Company has investigated and treated 32,155 hidden dangers, formed more than 1,760 long-term mechanisms, reshaped the QHSE system, improved the QHSE organization, strengthened the construction of full-time teams and management of contractors, and established and perfected a mature work safety system. Consequently, the Company's safety management level was significantly improved, and the work safety performance was stable and good.

#### ▼ Concentrate and work against the clock



▲ Struggle for Work Safety

#### 3. Special rectification of unsafe conducts

From March to November 2022, the "Special Rectification of Unsafe Conducts" was carried out, during which, 4,626 problems were cumulatively identified and rectified. Unsafe conducts such as violations of laws, regulations and disciplines, non-compliance and inaction, low standard, old weaknesses and bad habits were comprehensively investigated within the Company, and the situation of "low standards" and "illegal operations" on sites was improved.

- (1) Adopted the requirements of 15 measures for work safety on the basis of reality of COOEC to reduce the burden of grassroots work, and break down these requirements into 26 tasks to further promote the construction of safety and environmental protection culture.
- (2) Formulated 20 specific tasks in 7 key aspects such as "promoting the re-strengthening of work safety awareness" for special safety promotion work, and carried out 40 promotion tasks of 10 good practices, including "6S" standard creation in all subordinate units.
- (3) Carried out the theme activities of "preventing squeezing, falling and collision, and improving safety awareness and skills, and safety protection standards" (hereinafter referred to as "three preventions and two improvements") throughout the Company, and cumulatively organized 842 accidents warning and learning activities and 210 discussions on "three preventions and two promotions", investigated 278 hidden dangers at all levels, identified 1,391 problems, which were rectified in accordance with the principle of "five determinations", revised and improved 108 systems, and formulated 98 good operation practices.
- (4) Focused on the special treatment of major safety risks, set up a special working group for offshore hoisting and onshore construction and installation, prepared major operation process guidelines, and updated the existing seven major operation guidance documents, including large-scale onshore hoisting, gas jacking of LNG storage tanks, towed loading, long-distance towing, sliding launching and offshore hoisting/floating installation of large structures. Implemented the control measures for upgrading work safety during special periods from seven aspects.

#### 4. Strengthening QHSE training and education to improve staff's QHSE ability

In 2022, with the purpose of continuously improving the HSE management level of personnel in key positions and the HSE awareness and ability of employees, the Company intensified the QHSE training with diversified training forms as the starting point by focusing on the training of grassroots team leaders and full-time quality and safety personnel. In the whole year, nearly 60,000 QHSE training sessions were conducted, with more than 880,000 participants and over 1.38 million class hours (including contractors). Affected by the COVID-19 epidemic, the times of training and the number of participants in the year increased by 82% and 12% respectively compared with 2021, further improving the QHSE awareness and ability of all staff.



5. Further promoting the implementation of work safety responsibilities

According to the reform of the three systems and the adjustment of the Company's organizational structure, the list of work safety responsibilities of posts has been improved, and benchmarked with post responsibilities. All subordinate units and all departments of the headquarters have updated and signed more than 12,700 lists of work safety responsibilities of posts for all employees, creating a good situation where "everyone has his/her responsibilities, everyone is aware of his/her responsibilities and everyone is responsible".

6. Continuously carrying out the construction of the two-level prevention mechanism

The Company has improved the HSE risk management procedures, established the mode of "four-level risk" and "five-level control", refined control measures and requirements to reduce the possibility of work safety accidents from the source. It perfected the administrative regulations on the investigation and control of hidden dangers, clarified the implementation requirements of the two-level prevention mechanism, and formed a classification mechanism of four categories and 40 subcategories of hidden dangers, thus changing from the investigation and control of hidden dangers to safety risk management and control. The Company regularly carried out fire safety inspection on the monthly self-inspection of all subordinate units, tracked the problems that cannot be rectified immediately, and conducted level-by-level responsibility supervision on the Company's fire safety management according to the work safety inspection, "follow-up review", special fire safety inspection, etc. The Company has set the exemplary safety behaviors of leaders, and realized the conveying, transmission and transfer of results of general inspection by the shift leader, so as to realize the promotion and team leadership by inspection, which gave play to the key role of leadership in the in-depth and effective development of the Company's safety inspection.

WHOLE-PROCESS QHSE MANAGEMENT FOR CONTRACTORS

In 2022, the Company has significantly improved the QHSE management level of contractors by perfecting the contractor management system, implementing special improvement activities, and strengthening on-site implementation. With the continuous "increase" of both the number of operators and the workload, the work loss event rate and recordable event rate continued to decrease, the safety management capacity of the contractor team and the skill level and safety awareness of personnel continued to be enhanced and improved. For the full year, contractors completed approximately 64.05 million cumulative man-hours, with the increase of 26.4% year-on-year. Both the recordable event rate and the work loss event rate were 0.0031.

- 1.The Company has improved the long-term QHSE management mechanism of contractors, and the whole-process QHSE management system of contractors in terms of admission management, contract management, process management, assessment management and hierarchical management.
- 2. The Company has solidified the special QHSE improvement mode of contractors, continuously and deeply carried out a series of work such as QHSE qualification certification of contractors, mobilization audit of personnel and tools, and signing of on-site work safety management agreement, so as to further enhance the on-site supervision and management of contractors.
- 3. The Company has continuously carried out on-site safety inspections at different levels and the special QHSE audits of contractors, and investigated more than 30,000 hidden dangers in total; conducted more than 400 special audits of contractors, and identified over 2,160 problems; issued the QHSE Qualification Certificate to 384 engineering service contractors; organized over 70 interviews for safety performance with more than 500 contractors.

INSPECTION OF WORK SAFETY

From April 20 to May 15, 2022, a company-wide general inspection of work safety has been organized and conducted. A total of 820 problems were identified, including one major problem and 819 general problems. Management problems totaled up to 711, accounting for 86.7%. There were 31 hardware problems and 78 unsafe conducts of personnel. All subordinate units cumulatively identified and rectified 1,664 problems and 922 management problems in self-inspection, accounting for 55.4%. COOEC investigated the accountability for 39 identified problems violating the safety and environmental protection requirements of "eight Don'ts" and "zero tolerance".

From August 15 to September 30, 2022, the "follow-up review" of general work safety inspection - the annual internal audit was organized within the whole company. Through the inspection, it was found that the QHSE management of all subordinate units was basically in line with the Company's requirements, but a total of 511 problems were identified in 7 aspects, including implementation of "six responsibilities", establishment of two-level prevention mechanism, contractor management, basic management of work safety, management of equipment and facilities, emergency management and environmental protection management, all of which were rectified.

ACTIVITIES OF WORK SAFETY MONTH

I. With the theme of "laying and consolidating a solid foundation, strengthening implementation and promoting improvement", more than 1,800 publicity and education activities such as safety lectures, education and training, knowledge popularization, hidden danger investigation and safety warnings have been organized, with over 116,000 participants.

- 1.35 safety lectures, 145 team activities, and 425 safety inspections.
- 2.821 shows such as Life Is Weightier than Mount Tai, with 22,402 participants.
- 3.416 work safety training sessions, involving 38,028 employees.
- 4.132 accident warning educations, involving more than 96,000 participants.
- 5.561 sessions of the New Work Safety Law, with 19,746 participants.
- 6.National knowledge contest on the Work Safety Law, with 13,611 personnel participating in the answering.

II. Intensifying the publicity of safety culture, and creating the safety cultural atmosphere of "always keeping safety in mind, talking about safety and acting safely".

- 1. 142 safety culture publicity documents issued within the Company;
- 2. A series of posters such as fifteen measures for work safety, three-year action plan for special rectification of work safety, and excellent evaluation by QHSE personnel;
- 3. Promotional video of "What is Safety" and the "Open Consultation Day" documentary for the families of employees (contractors);
- 4. Distributing the safety book of "Making Safety a Habit".

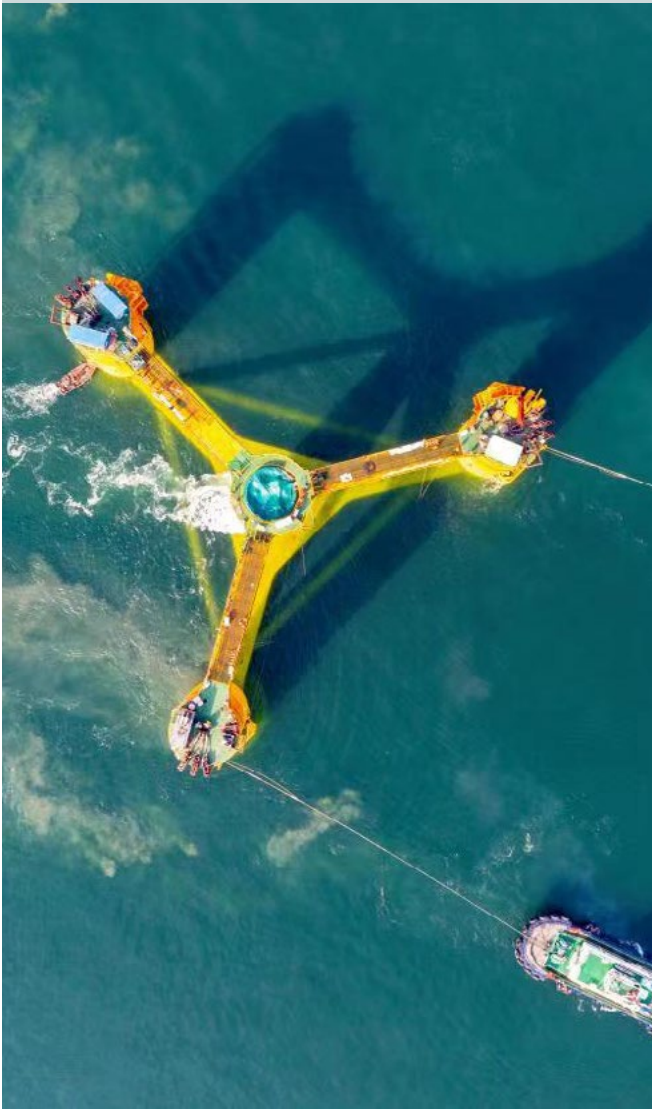
III. Formulating the safety visualization standard manual within the Company, and promoting all units and projects to strengthen the safety visualization construction at construction sites and fixed construction sites.

- 1. Standardize the standardized management of work safety for all subordinate units, and create a unified safety management standard with the characteristics of COOEC.
- 2. Promote the standardized layout of QHSE logos, slogans and display boards of all subordinate units;

- 3. Transform the system requirements into forms easily accepted by employees through the preparation of professional manuals and training and educational videos to improve the system execution. Complete volumes for general contracting and subcontracting of the Standardization of On-site Housekeeping Management of LNG Projects by taking the LNG Branch as a pilot. Strengthen the publicity signs, banners, access control, enclosures, safety signs, pre-shift meeting, discussion platform and other standards and practices in the temporary construction area and construction area in the LNG project construction site, and promote the normalization, scientificity and standardization of safety and housekeeping management, so as to achieve the good effect of "orderly construction, standardized facilities and clean environment".

From January to December 2022, the Company (including direct contractors) spent 86.8 million man-hours, with a statistical lost work day event rate of 0.0023, and the year-on-year decrease of 20.7%.

▼ Guanlan platform sets sail





COMPARISON BETWEEN 2022 OSHA STATISTICS AND 2021 OSHA STATISTICS

Time		Occupational injury/disease should be recorded					Loss of work Incident rate	Total working hours (10,000)
		Death incident (Number of case)		Serious injury (Number of case)	Loss of work event (Number of case)	Medical treatment (Number of case)		
		Class A	Class B	Class C	Class D	Class E		
January-December 2021	Company	0	0	0	1	0	0.0109	1827
	Contractor	0	0	0	0	0	0.0000	5083
Total		0	0	0	1	0	0.0029	6910
January-December 2022	Company	0	0	0	0	1	0.0000	1987
	Contractor	0	0	0	1	0	0.0030	6693
Total		0	0	0	1	1	0.0023	8680
YoY (%)		-	-	-	-	100%	-20.7%	25.6%

RISK OF MAJOR SAFETY, ENVIRONMENTAL PROTECTION AND QUALITY ACCIDENT

RISK DESCRIPTION:

Changes in organization and personnel may cause various factors such as unassigned QHSE responsibilities, insufficient execution due to imperfect systems, dilution of management as a result of increased workload of contractors, gap between QHSE training and the needs of safe development, natural disasters (such as typhoons) or force majeure, resulting in major safety, environmental protection and quality accidents, which may cause casualties, property losses, construction delays, and damage to the reputation and social image of the Company.

COUNTERMEASURES:

1. Strengthen QHSE organization guarantee, and provide professional guidance for QHSE post setting of all units and the post competency of key personnel during the reform period, so as to meet the requirements of laws and regulations, local governments and the Company as well as business development needs. Supervise all units to strictly implement the Work Plan on Safety and Stability Guarantee during the Deepening of Three System Reforms for COOEC to ensure the effective implementation of the "six responsibilities" and all work.
2. Accelerate the remodeling of QHSE system, re-examine the interfaces between the Company and subsidiaries, the bridging relationship of products and business systems and the implementation process in accordance with the three system reforms, speed up the compilation and revision of system documents, strictly control the quality of documents, so as to create system documents matching the Company's development orientation.
3. Strictly consolidate and improve the "three-year action plan for special rectification of work safety", solidify the preliminary work results, and further promote the consolidation and improvement of three-year action. Complete 83 tasks to promote the continuous stability and improvement of work safety situation.
4. Implement the special plan for improving the working environment of contractors: promote the practical improvement for the dining environment, rest area, locker room, toilet, training room, accommodation management and other issues, and achieve certain results in the short term; strengthen the government-enterprise alliance, jointly promote people's livelihood projects, and enhance the sense of achievement and honor of contractor personnel in the long term. At the same time, strengthen the contractor's safety training, process control and life cycle management to realize the synchronous development of the contractor's safety management level with that of the Company.
5. Carry out the special promotion action of safety training: establish a leading group headed by the chairman of the Board of Directors, and set up three groups, namely, supervision and discipline enforcement group, accident analysis group and deepened rectification group, to comprehensively lead the special rectification work. The special implementation plan has been formulated, publicized and implemented. In the follow-up, the Company will start from investigation and research, compliance construction, standardization construction, informatization construction, special improvement of contractor safety training, exploration of training base construction and other aspects to consolidate its safety training foundation.

6. Improve the two-level prevention mechanism of risk control and hidden danger investigation and governance: organize all units to upgrade the "risk control list", "four-color distribution map of safety risks", "safety risk notification billboard" and "post risk notification card", improve content quality, optimize hierarchical division, and "consistently" take risk identification and control measures. Promote the implementation of risk management by special inspection, safety training, accident investigation and accountability and other measures effectively running through the work safety management.

7. Strengthen comprehensive emergency response capacity building: always adhere to the normalization of epidemic prevention and control, ensure the implementation of epidemic prevention and control measures, and achieve the goal of "zero infection in the workplace"; Organize the revision of the Company's emergency management plan, strengthen the supervision and guidance of the Company's three-level emergency response plan system, and improve "one case per ship, one case per site"; Organize and complete the annual drill plan to further enhance the emergency combat capability, and ensure the 100% success rate of typhoon prevention.

8. Strengthen the construction of safety culture: improve the physical safety culture and create a strong safety atmosphere by means of QHSE logos, slogans, display boards, billboards and other media; transform system requirements into forms easily accepted by employees through the preparation of professional manuals, training and education videos and other safety materials, in order to improve the system execution.

Perfect the safety risk management and control mechanism, and the HSE risk management procedures, clarify the implementation requirements of risk management and control to reduce the possibility of work safety accidents from the source. Improve risk classification requirements, strengthen risk control, establish the mode of "four-level risk" and "five-level control", and refine control measures and requirements. Solidify the hierarchical risk control list and update the ledger on a rolling basis, establish the registration ledger of HSE risk points, the HSE risk hierarchical control list of operation activities and the HSE risk hierarchical control list of equipment and facilities. Organize all subordinate units to carry out monthly risk analysis meetings to analyze and warn the risks of the next month, and form a normalization mechanism.



▲ Equipment Maintenance



▼ Solve problems in confined spaces

The Company has organized all units to re-identify various HSE risks, and identified 5,272 low risks, 3,197 general risks, 572 moderate risks and 37 major risks, totaling 9,078.

All units carried out 120 monthly risk early warning and analysis meetings in total, conducted 549 major risk early warnings, and tracked 4 Class 1 operations, 1 Class 2 operations and 77 Class 3 operations of engineering projects.

By implementing risk measures, the effective control of QHSE risks was ensured through taking the risk as the core, insisting on advanced prevention and forward moving of key note, starting with the risk identification and adopting the risk control as a method to control risks before the formation of hidden dangers. In 2022, the Company carried out 11,067 inspections at all levels and investigated 40,806 hidden dangers.

The Company implemented a 24-hour emergency duty system. Installation branch, Shenzhen Technical Service Company and the projects in the South China Sea upgraded the strength and depth of typhoon safety inspection of ships, and well prepared against super typhoons for ships, conducted self-inspection against watertight doors and windows, anchoring system, valves and other key anti-typhoon equipment, properly maintained lifeboats and other life-saving equipment and materials without omission. Furthermore, the Company strengthened tracking and early warning, upgraded the reporting frequency of typhoon prevention of ships, and established early and late warning and reporting mechanisms for typhoons that might affect the operation.



▲ The construction personnel braved the elements to arrange wire ropes on the site before the typhoon struck



# ENVIRONMENTAL PROTECTION

- Response to climate change
- Environmental protection management
- Energy conservation and emission reduction
- Resource conservation
- Emissions management
- Ecological protection



Adhering to sustainable development concept of "lucid waters and lush mountains are invaluable assets", the Company actively responds to climate change, implements the national targets of peak carbon dioxide emission in 2030 and carbon neutrality in 2060, and strictly follows the path of simultaneous development of environmental protection and economy, strictly abides by national and local laws, regulations and standards on environmental protection and pollution prevention and control, and vigorously promotes energy conservation and emission reduction to build an environment-friendly enterprise.

### RISK ANALYSIS:

With the introduction of carbon emission policies in various countries, the Company expects to be regulated by relevant institutions and organizations in the future. Failure to find economically viable and publicly acceptable solutions to reduce CO2 emissions could result in additional cost increases for the Company and impact its reputation.

The Company's equipment manufacturing, equipment installation, and vessel operation activities generate wastewater and waste. If not properly controlled, substandard wastewater discharges or waste disposal processes may occur, damaging the Company's reputation and operations, increasing cost inputs, and even exposing the Company to litigation and sanctions. Risks of economic and social responsibility may be caused by irregular implementation of policies and measures for energy conservation and carbon reduction.

Inadequate control during the manufacturing, equipment installation and vessel operation of the Company may adversely affect the surrounding ecological environment and threaten biodiversity, thus impairing the Company's reputation and leading to social responsibility risks.

### RISK RESPONSE:

Implement the green and low-carbon development strategy, set the peak carbon dioxide emission and carbon neutrality targets, enhance the Company's low-carbon operation capability, start to control from low-carbon management, environmental protection management, environmental risk management, emission management and biodiversity protection and other aspects, improve the level of environmental protection management, ensure that all production and operation activities meet the requirements of environmental protection laws and regulations and the Company's internal system, achieve energy conservation and consumption reduction, and adhere to the road of green and low-carbon development.

## RESPONSE TO CLIMATE CHANGE

In order to actively implement the requirements of the national targets of peak carbon dioxide emission in 2030 and carbon neutrality in 2060 and comprehensively promote the implementation of the green and low-carbon core development strategy, COOEC has formulated the "Green Development Action Plan", specifying the green development goals in three stages. Through the implementation of three specific action plans, namely green oilfield, clean energy and low carbon, the Company will promote the full integration of its own green development and contribute to the high-quality development of China, and strive to become a world-class clean energy production and supply enterprise with Chinese characteristics.

COOEC has issued a series of implementing rules for low-carbon management, such as the Measures for Energy Conservation and Low-carbon Management, the Rules for Management of Energy Conservation and Carbon Emission Statistics, the Rules for Management of Energy Conservation Assessment and Review of Fixed Asset Investment Projects, and the Rules for Management of Energy Conservation Assessment, Rewards and Punishments, to ensure that the Company's energy conservation and carbon reduction work can be carried out in a long-term, effective and standardized manner, so as to improve the energy efficiency, and ensure the full completion of energy conservation objectives and tasks, so as to build a resource-saving and environment-friendly enterprise, and promote the Company's green and sustainable development.

In terms of implementing the management system for energy conservation and carbon reduction of COOEC, all branches of the Company have clearly defined the energy conservation and low-carbon management institution of the Company, set up corresponding posts and the energy conservation and low-carbon work leading group in strict accordance with the requirements of energy conservation and carbon reduction of the headquarters. They have established the energy consumption ledgers, filled in and submitted the carbon emission statistical tables on schedule, and formulated energy conservation and emission reduction projects and plans.

The annual energy saved reaches  
**4,183** tons of coal equivalent

Carbon reduction  
**11,425** tons of carbon dioxide

Annual comprehensive energy consumption per 10,000 yuan of output value  
**0.07** tons of coal equivalent per 10,000 yuan

Carbon emissions per 10,000 yuan of output value  
**0.1895** tCO2e per 10,000 yuan





RESULTS OF WORK RELATED TO CLIMATE CHANGE RESPONSE

- 1. Actively promoting the construction of green enterprise. Qingdao Company was awarded the title of "Green Supply Chain Management Enterprise" in Qingdao City. The Company has applied for 2022 Green Supply Chain Management Demonstration Enterprise of the Ministry of Industry and Information Technology of the People's Republic of China. After preliminary examination and recommendation by Tianjin Industrial and Information Technology Bureau, the Company has successfully entered the evaluation stage by the Ministry of Industry and Information Technology of the People's Republic of China.
- 2. Actively promoting the transformation of green development. The Company has strengthened LNG engineering businesses, including the completed Zhangzhou LNG project and 8 in-progress LNG projects, including Zhuhai LNG Expansion Project, Tangshan Phase I and Tangshan Phase II. A total of 35 storage tanks are under construction. It is expected to provide 7.63 million cubic meters of LNG storage capacity for the natural gas production, supply, storage and marketing system when these projects are put into operation.
- 3. Accelerating the substitution with clean energy. The Company provided coordinating services in promoting the construction of rooftop distributed PV projects at three sites in Lingang, Tianjin, Qingdao and Zhuhai. According to preliminary estimates, 1.1MW, 2WM and 6.5MW distributed PV power stations can be built respectively. After commissioning, it is expected to generate a total of about 9.97 million kilowatt-hours of green power per year, save 2,456 tons of standard coal and reduce carbon dioxide emissions by 8,180tons. The feasibility study report for Zhuhai Project has been examined and approved, and the feasibility study reports for Qingdao and Tianjin projects are under examination and approval. It is preliminarily planned to start the implementation in 2023 after the feasibility study report of Clean Energy Company is approved.
- 4. Promoting the construction of information systems for energy conservation, carbon reduction and water saving. The Phase I online energy monitoring system (EMS) in Lingang Site, Tianjin and the intelligent water supply system in Qingdao Site have been put into operation. The online monitoring system of ship energy consumption digitally enables energy conservation, carbon reduction and water saving.
- 5. International cooperation for green development. The Company has established a joint working group on green supply chain and signed a letter of intent for cooperation with Shell (China) Limited, and the new energy vehicle charging stations jointly constructed have been put into use. COOEC has fully drawn on Shell's advanced experience in global carbon emission reduction. we have investigated and studied the current situation of carbon emissions at the Lingang site in Tianjin jointly, and are preparing solutions for site energy efficiency optimization and carbon emission reduction path.
- 6. Actively exploring new green and low-carbon business beyond the system. The Company has developed the world's first set of commercial underwater data center in cooperation with Shenzhen Hailanyun Data Center Technology Co., Ltd., with an application depth of more than 30 meters and a weight of 1,300 tons. It is currently the largest under data center in the world with the advantages of low energy consumption and low cost such as water and electricity saving. It is a new type of marine engineering equipment integrating science and technology, big data, low carbon and greenness, and has broad market prospects at present with the rapid development of big data, cloud computing, AI and digital economy.

▼ Enping 15-1 project



Hoisting Site of Lanjing ▲

Highlight 1: The first offshore "CO2 storage" demonstration project

For the Enping 15-1 Oilfields Central Platform, the Company has completed the research, manufacturing and installation of the first offshore “CO2 storage” module in China. The project realizes zero carbon dioxide emission and green and low-carbon development of offshore oilfields by capturing and treating the carbon dioxide associated with the development of the oilfields, and then injecting it back into the seabed formation for storage. It is expected that about 300,000tons of carbon dioxide will be stored annually, which will provide strong scientific and technological support for China's goal of "peak carbon dioxide emission and carbon neutrality".

In this project, the Company has organized the research on key equipment technologies of the offshore supercritical carbon dioxide compression and reinjection project, mastered the independent core technologies of supercritical carbon dioxide gas booster equipment on offshore platform, and solved the technical difficulties in simulation design of carbon dioxide compression process, dense phase gas-liquid separation, supercritical carbon dioxide phase control and release. The first complete set of supercritical carbon dioxide compressor was successfully applied to Enping 15-1 Oilfields Central Platform, forming reproducible and transferable technical equipment achievements.

Highlight 2: Offshore green power project construction

The Company is actively commencing offshore wind power and other new energy businesses, including the research, development, demonstration and application of offshore floating wind power localization, and onshore construction/ transportation/ installation of offshore booster station for Qingzhou-6 Offshore Wind Power Project, which are under construction and expected to produce 25,000 MW of green power per year after being put into operation.

ENVIRONMENTAL PROTECTION MANAGEMENT

In accordance with the requirements of ISO 14001 standard, the Company has established an environmental management system and obtained the certification of DNV.GL to implement systematic management of environmental protection. The Company has been issued with the pollutant discharge license according to the law, discharged pollutants in line with the license and up to standards, and effectively performed environmental protection responsibilities and obligations.

In 2022, the Company has achieved its environmental protection targets and indicators which further elevated the environmental protection management level, and improved the environmental protection image of the Company. Through benchmarking and comparison, onshore production units have strengthened the construction of environmental protection infrastructures, improved the basic management of environmental protection, standardized the treatment of volatile organic compounds in sandblasting and coating workshops, actively promoted the construction of online environmental monitoring and intelligent management system for access control of motor vehicles, raised the proportion of on-site motor vehicles with exhaust emission standards above the China IV emission standard, and elevated the environmental management level of the site. COOEC-Fluor Heavy Industries Co., Ltd., a holding subsidiary, won the Green Card of Zhuhai Enterprise Environmental Credit Rating (the best grade) in 2021. The performance rating of key industries related to heavy pollution weather was upgraded from C to B in Tanggu Site and Qingdao Site, and from D to B in Lingang Site. The policy permission for independent emission reduction in heavy pollution weather was obtained, and the synergy between environmental protection and production and operation was achieved.

For maritime ships in operation, we have established a ship safety management system in strict accordance with the requirements of the International Management Code for the Safe Operation of Ships and for Pollution Prevention, obtained the certification of China Classification Society and the Document of Compliance (DOC) upon examination and approval by the Maritime Safety Administration. Each ship holds a valid statutory certificate relating to pollution prevention and is accompanied with the Garbage Management Plan and Oil Pollution Contingency Plan for ships approved by the MSA. Annex IV “Regulations for the Prevention of Pollution by Sewage from Ships” and Annex V “Regulations for the Prevention of Pollution by Garbage from Ships” of the international convention MARPOL 73/78, the Environmental Protection Law of the People’s Republic of China, the Discharge Standards of Pollutants from Ships of the People’s Republic of China, the Regulation on the Prevention and Control of Vessel-induced Pollution to the Marine Environment, and the Administrative Provisions of the People’s Republic of China on the Prevention and Control of Marine Environmental Pollution by Ships and Their Operations and other relevant provisions have been strictly implemented to ensure the lawful and compliant operation of the Company’s ships.

Throughout the year, the company and its affiliates held

28 studies on environmental protection for theory center group

Held

46 study sessions for the first topic

Over \$

7,700 people answered questions online

247 training sessions

17,632 trainees

A total of

23,681 hours



The Company has always adhered to compliance with laws and regulations and implemented the whole-process control of “source reduction, process control and terminal treatment”. Focusing on “system construction”, “supervision and inspection” and “publicity and training”, the Company and its secondary units have newly compiled 22 and revised 10 environmental protection documents, arranged 13 full-time and part-time environmental protection management personnel, carried out 4 special activities, held 42 special environmental protection meetings, and conducted 21 environmental case warning educations. Leaders at both levels participated in 105 environmental protection activities and 205 environmental protection inspections at all levels with 770 man-days, identified and rectified 389 problems, effectively promoting the implementation of various environmental protection work and the coordinated development of the Company’s production and operation activities and environmental protection.

In 2022, the Company and its subordinate units carried out 28 special learning activities by the Center Group for environmental protection-related theories and 46 learning activities of the first issues. More than 7,700 people answered questions online. In addition, 247 times of training were organized, with 17,632 participants and 23,681 class hours in total.

RESULTS OF ENVIRONMENTAL PROTECTION MANAGEMENT

1.Relying on QHSE system reshaping to perfect environmental management system

According to the latest national laws and regulations on environmental information disclosure, noise pollution prevention and control, general industrial solid waste management ledger, etc., and taking the opportunity of the reshaping the QHSE system, the Company upgraded the existing environmental management system to promote the compliance and improvement of the environmental management system.

2.Carrying out knowledge training on environmental protection management to improve the environmental protection management capacity

The Company has strengthened the full-time and part-time environmental protection management staffing, organized and carried out professional knowledge training, such as ecological and environmental protection policies, environmental protection regulations, solid waste and hazardous waste management, volatile organic compounds treatment and other courses, to improve the quality of environmental protection management team, and promote the effective implementation of various environmental protection work.

3.Strengthening the awareness of environmental protection red line and environmental protection control in the whole process

The Company has strictly enhanced the awareness of "red line" for environmental protection of all employees, actively promoted the synergy of pollution and carbon reduction, and fully implemented “source reduction, process control and terminal treatment”. It has organized the formulation and implementation of annual environmental protection plans, signed the letter of responsibilities for environmental protection management level by level, assessed environmental protection constraint indicators, strictly implemented environmental protection monitoring, continuously conducted environmental protection management supervision and inspection, discharged waste water and gas and disposed of solid waste and hazardous waste in accordance with laws and regulations, and earnestly fulfilled environmental protection responsibilities.

4.Carrying out environmental protection education activities to publicize green ecological culture

Based on the opportunities of "World Environment Day" and "World Oceans Day", the Company has organized and carried out rich and colorful "Eco-Environment and Environmental Protection Publicity Week" activities, creating a warm environment protection atmosphere through banners, posters, foldouts and manuals. Such activities as "Building a Clean and Beautiful World" theme signature, special training, knowledge quiz, knowledge contest, "Walking and Garbage Picking for Public Welfare", "Cleaning Up Floating Garbage on the Sea", and "Snapshots of Environmental Protection Highlights" were launched, during which, more than 530 posters were produced and posted, 136 banners hung, more than 5,000 foldouts distributed, and 6,139 personnel trained, so as to extensively mobilize people to actively participate in ecological environment protection, and advocate building a clean and beautiful world beginning from ourselves.

5.Preventing environmental pollution incidents

The Company has formulated an environmental risk prevention and control system, carried out environmental risk identification and assessment, adopted a dynamic environmental risk supervision mechanism, clarified the hierarchical risk control process by implementing environmental risk management and control responsibilities and improving the environmental risk management operating procedures, continuously improved its environmental risk management capability and engaged in environmental risk supervision, investigation and governance. In particular, in order to strictly prevent offshore oil spills, the Company has strengthened the investigation and control of risks and hidden dangers of environmental emergencies, and made emergency preparations in strict accordance with its planning to prevent the occurrence of general or more serious environmental emergencies.

ENERGY CONSERVATION AND EMISSION REDUCTION

In 2022, a total of 92 energy conservation and efficiency improvement measures were implemented in COOEC, with the energy conservation of 4,183 tons of standard coals, exceeding the target rate by 232%, the carbon reduction of 11,425 tons of carbon dioxide, exceeding the target rate by 109%, the water conservation of totally 43.16 million tons in the whole year. In 2022, the comprehensive energy consumption was 0.07 tons of standard coal per RMB 10,000 output value and the carbon emission is 0.1895 tCO2e per RMB 10,000 output value, so the 2022 energy conservation and carbon reduction targets and indicators were successfully fulfilled.

COMPLETION OF ENERGY AND WATER CONSERVATION TARGETS

Name of indicator	Target value for 2022	Value achieved for the year	Completion rate
Energy conservation (ton of standard coal)	≥ 1800	4183	232%
Carbon reduction (ton of CO2)	≥ 10500	11425	109%
Water saving (ton)	≥ 3600	4316	119%
Energy consumption per unit output value (ton of standard coal / RMB 10,000)	≤ 0.072	0.07	Complete
Carbon emissions per unit output value (ton CO2/RMB10,000)	≤ 0.195	0.1895	Complete

RESOURCE CONSERVATION

COOEC provides the manufacturing, construction and installation of basic facilities for offshore oil exploration and extraction, and consumes a lot of metallic materials such as steel and aluminum alloy and non-metallic materials such as concrete. The Company has economized the use of raw materials and reduced the consumption of non-renewable resources through technical modification and scheme optimization.

Case I

During the pipeline and cable construction of Kenli 6-1 Oilfield Project, the Z-type crossing scheme was proposed by optimizing the scheme for pipeline and cable crossing near the platform. The number of concrete blocks decreased from 3,329 in basic design to 2,299 in detail design, with a reduction of 1,030 concrete blocks, thus greatly saving concrete, reducing resource depletion and indirectly reducing carbon dioxide emissions as cement was selected as a main raw material of concrete.



During the construction of platform workshop of Kenli 6-1 Project, galvanized iron sheets were generally used for decoration in infrequently accessed rooms with thermal insulation or fire prevention requirement. Therefore, the collision between ventilation ducts and galvanized iron sheets often occurred on the top of the room. According to the actual needs of the project, the steel wire mesh was used to replace galvanized steel sheets in some workshops at heights exceeding the regular activities of personnel, so as to achieve the decorative and protective effect, reduce the space occupation at the top and bottom, eliminate the collision with ventilation ducts, and save galvanized steel sheets by 8,840 square meters in area and about 6.9 tons in weight.



Case II

During the construction of secondary adjustment project of Bozhong 28-2 South Oilfield, under the premises of no impact on project duration, the Company gave full play to the subjective initiative of designers, guaranteed the safety and compliance, and optimized the jacket steel pile structure to leverage advantages of EPCI general contracting. Consequetly,90 tons of steel were saved.

▼ Bozhong-Xingli Oilfield Group Shore Power Application Project



EMISSIONS MANAGEMENT

The Company implements hierarchical environmental management, manages and monitors pollutants and wastes in the whole process of operation, to reduce wastes from the source. The Company earnestly implements the Environmental Protection Law of the People's Republic of China, the Effluent Limitations for Pollutants from Offshore Petroleum Exploration and Production, the Biological Toxicity for Pollutants from Marine Petroleum Exploration and Exploitation, the Discharge Standard for Water Pollutants from Ships and other relevant national laws, regulations and policy documents, as well as the relevant laws and regulations of the country where it operates, strictly controls the substandard discharge of pollutants such as waste gas, waste water and solid waste, and strengthens the control over land and marine environmental protection.

STRENGTHENING THE ENVIRONMENTAL PROTECTION MANAGEMENT OF KEY POLLUTANT DISCHARGE UNITS

Offshore Oil Engineering (Qingdao) Co., Ltd. (hereinafter referred to as the "Qingdao Subsidiary"), a wholly-owned subsidiary of the Company, has been identified as a key pollutant discharge unit in Qingdao City, Shandong Province in 2022, with the following regulatory categories: water environment, atmospheric environment and soil environment. The main pollutants of Qingdao Subsidiary are domestic waste water in the factory area, organic waste gas produced by painting and hazardous waste generated in the production process.

POLLUTANT DISCHARGE METHOD:

- (1) All domestic sewage generated by Qingdao Subsidiary is pretreated by the integrated sewage treatment equipment in the plant area to meet Class B standard in the Wastewater Quality Standards for Discharge to Municipal Sewers (GB/T31962-2015), and then discharged into municipal sewage pipelines and into Nibuwan Sewage Treatment Plant. Qingdao Subsidiary has an online sewage monitoring system in the factory, and realizes the 24-hour networking with the local environmental protection bureau.
- (2) The welding fume and grinding dust generated in the production process of Qingdao Subsidiary are filtered and removed by two methods, i.e., mobile welding purification unit with flue gas capture arm and filter type dust removal device with self-circulating filter cartridge. The metal oxide dust generated by shot blasting shall be subject to secondary dust removal by the cyclone filter cartridge, and discharged via a 25m high exhaust funnel after satisfying the standard. After the paint mist and dust generated by painting is absorbed and purified by the zeolite runner adsorption device, the organic exhaust gas enters the stage of regenerative catalytic combustion (RCO) treatment, and the purified exhaust gas is discharged from the 25m high exhaust funnel. Qingdao Subsidiary has s VOCs online monitoring system in the factory, and realizes the 24-hour networking with the

local environmental protection bureau.

- (3) For the disposal of wastes that may cause soil pollution, Qingdao Subsidiary, in accordance with the relevant laws and regulations, assigns all disposal missions to third-party entities with the qualification of hazardous waste disposal. Before disposal, the wastes are temporarily stored in the temporary storage warehouse for hazardous wastes, which is subject to anti-seepage and anti-spill treatment on the ground in accordance with the relevant technical requirements, and where anti-spill tanks and recycling tanks are provided to ensure that the hazardous wastes will not pollute the soil throughout the temporary storage period.

POLLUTANT DISCHARGE OF QINGDAO SUBSIDIARY

Indicators	Average concentration	Total discharge amount	Direction of discharge
Effluent volume of wastewater	--	36,900 m3	Discharged to sewage treatment plant through municipal pipe network
Chemical oxygen demand in wastewater	-- Up-to-standard emission	2.85 tons	
Ammonia nitrogen in wastewater	-- Up-to-standard emission	0.10 tons	
Benzene, toluene and xylene	-- Up-to-standard emission	0.41 tons	Vented to atmosphere by high exhaust funnel
Sulfur dioxide	-- Up-to-standard emission	0.05 tons	
Oxynitride	-- Up-to-standard emission	0.66 tons	
Total non-methane hydrocarbon	-- Up-to-standard emission	4.73 tons	
Total discharge amount of particulate matter	-- Up-to-standard emission	3.51 tons	

STRENGTHENING ENVIRONMENTAL PROTECTION MANAGEMENT OF NON-KEY POLLUTANT DISCHARGE UNITS

The offshore equipment manufacturing base of the Company has obtained the sewage discharge permit (certificate No. 91120116722950227Y007Q) as required, valid from August 27, 2021 to August 26, 2026. Meanwhile, the permit for discharging urban sewage into the drainage pipeline in Tianjin has been obtained, valid from August 20, 2021 to August 19, 2026. The main pollutants from the offshore equipment manufacturing base of the Company are domestic wastewater, organic waste gas produced by coating operation, and hazardous waste produced in the production process.

POLLUTANT DISCHARGE FROM OFFSHORE EQUIPMENT MANUFACTURING BASE

Indicators	Average concentration	Total discharge amount	Direction of discharge
Effluent volume of wastewater	-- Up-to-standard emission	109,300 m3	Discharged to sewage treatment plant through municipal pipe network
Chemical oxygen demand in wastewater	-- Up-to-standard emission	4.15 tons	
Ammonia nitrogen in wastewater	-- Up-to-standard emission	0.04 tons	
Benzene, toluene and xylene	-- Up-to-standard emission	0.71 tons	Vented to atmosphere by high exhaust funnel
Sulfur dioxide	-- Up-to-standard emission	0.11 tons	
Oxynitride	-- Up-to-standard emission	1.06 tons	
Total non-methane hydrocarbon	-- Up-to-standard emission	1.58 tons	
Total discharge amount of particulate matter	-- Up-to-standard emission	2.49 tons	



FOCUSING ON SOURCE CONTROL AND STRENGTHENING ENVIRONMENTAL PROTECTION MANAGEMENT OF SHIPS

(1) Environmental protection management of self-owned ships

By the end of 2022, the Company had 19 engineering construction ships, and has continuously attached importance to the environmental protection management of ships, implemented the requirements of national and international conventions on the safe operation of ships and pollution prevention management. No environmental pollution accidents of ships were reported. The Company has strictly implemented the relevant provisions of the Discharge Standard for Water Pollutants from Ships (GB 3552-

2018) and the Annex IV "Regulations for the Prevention of Pollution by Sewage from Ships" of MARPOL 73/78 Convention. Domestic sewage treatment plants have been installed for its 19 ships, which discharge in strict accordance with the Discharge Standard for Water Pollutants from Ships (GB 3552-2018) and Annex IV "Regulations for the Prevention of Pollution by Sewage from Ships" of the MARPOL 73/78 Convention. The domestic sewage tank renovation works of 9 ships, including Haiyang Shiyou 225, Haiyang Shiyou226, Binhai 108, Lanjing, Lanjiang, Haiyang Shiyou 228, Haiyang Shiyou229, Haiyang Shiyou221 and Binhai 109, have been completed to meet the requirements of zero discharge of domestic sewage in sea areas where discharge is forbidden. The collected domestic sewage has been received and disposed of by qualified entities.

The Company's ships have strictly implemented the International Convention for the Prevention of Pollution from Ships (MARPOL Convention), the Implementation Plan for Ship Emission Control Zones in the Waters of the Pearl River Delta, the Yangtze River Delta and the Bohai Rim (Beijing-Tianjin-Hebei) Region (JHFa [2015] No.177) and the Implementation Plan for Air Pollutants Emission Control Zones (JHF [2018] No.168) issued by the Ministry of Transport.

(2) Environmental protection management of chartered ships

The Company regards chartered ships as the focus of

pollution prevention management of ships. In 2022, a professional management agency for foreign-chartered ships was established to take charge of the survey of foreign-chartered ships before the commencement of lease and the supervision of safety and pollution prevention during the lease. The Comprehensive Management Manual for Foreign-chartered Ships was developed to specify the safety and pollution prevention management requirements for the whole process of survey, access, commencement of lease, process supervision and surrender of foreign-chartered ships.

In strict accordance with the requirements of relevant conventions, laws and regulations on pollution prevention, during the on hire survey, key environmental protection matters such as the validity of relevant statutory certificates on pollution prevention of foreign chartered ships, operation records and maintenance of anti-pollution equipment and facilities, lead sealing of sewage discharge equipment, completeness of records in oil log book/garbage log book, proof of receipt of sewage/oily water and garbage disposal were inspected and rectified in a timely manner if any problem is found, and the chartered ships were leased only after all rectifications are completed, effectively ensuring the legality and compliance of the Company's chartered ships in pollution prevention.

In 2022, the Company has chartered more than 140 foreign ships, and no environmental pollution accidents have occurred.



▲ Marine Mammal Observer

ECOLOGICAL PROTECTION

In accordance with the requirements of relevant laws and regulations such as the Marine Environment Protection Law of China, the Administrative Measures for Environmental Protection in Production Process and the Administrative Measures for the Investigation of Liability for Ecological Environmental Damage, COOEC has established a long-term mechanism for marine ecological protection to actively protect marine and terrestrial ecological environment.

PROTECTIVE ACTION FOR MARINE MAMMAL

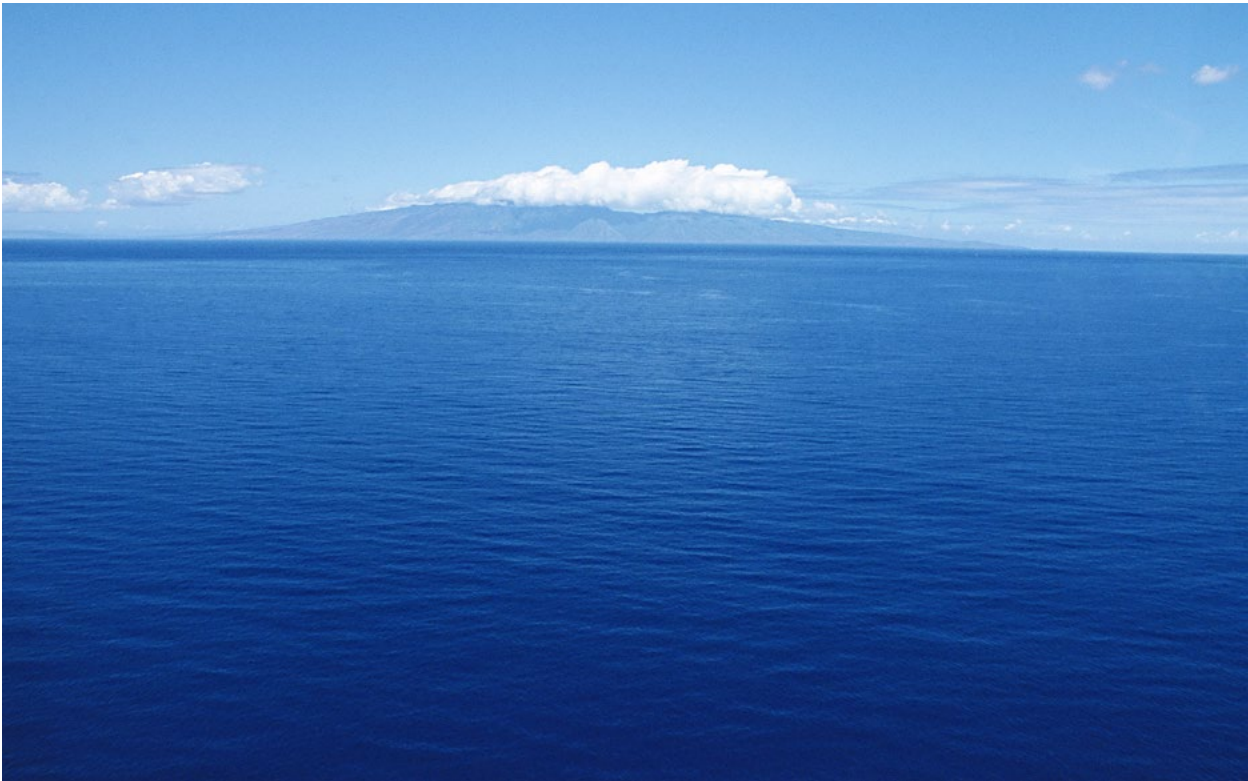
During the construction of the Hong Kong Offshore LNG Terminal project, the Company strictly abided by the local laws and regulations on environmental protection in Hong Kong, actively fulfilled the responsibility of environmental protection, and did its best to reduce the impact of production activities on the surrounding environment and marine life. For example, the offshore process of the project involved the seabed flushing and spraying, in order to protect the nearby marine environment, the Company adopted the method of silt curtain to surround the flushing and spraying machine, so as to ensure that the sea mud generated by the flushing and spraying process was trapped in the silt curtain and prevent the silt flow from polluting the nearby water quality and environment. At the same time, water quality impact monitoring was carried out at least 3 times a week to ensure that the water quality impact meets the environmental protection requirements.

An environmental impact assessment was carried out during the Project, and a marine mammal control zone with a radius of not less than 500 meters was set up around the piling operation with experienced marine mammal observers to protect marine mammals. Piling was carried out only after observers had confirmed that no marine mammals had been present in the area for 30 consecutive minutes. Once marine mammals were detected entering the marine mammal control zone, the operation was stopped immediately under safe conditions to reduce the impact on marine mammals.

ACTIVELY PROMOTING WATER-BASED PRIMER TO REDUCE THE EMISSION OF VOLATILE ORGANIC COMPOUNDS

The Company actively explored and developed the construction process of green environmental protection coatings, and fully applied the water-based primer in the automatic pretreatment line of profiles at the Lingang Site to replace the traditional solvent-based primer with high volatile organic content.

It is a temporary protective primer used at the prefabrication stage of deck pieces and sections during the land construction of marine engineering. 70% of the primer used in the traditional paint workshop is the volatile organic compounds. Moreover, the diluent is added during the application, so the content of volatile organic compound is very high.. The water-based primer not only has high solid content and water diluent, but also can meet the non-methane hydrocarbon emission standard without end-treatment. It is estimated that the promotion of water-based primer in the pretreatment line will reduce carbon emissions by about 45 tons per year.





# CARE FOR EMPLOYEES

- Care for employee
- Remuneration and welfare
- Employee development
- Resource conservation
- Employee training
- Employee health

## CARE FOR EMPLOYEES

The Company strictly implements the Labor Law, the Labor Contract Law, the Employment Promotion Law, the Special Rules on the Labor Protection of Female Employees, the Provisions on Prohibition of Using Child Labor and other relevant laws and regulations, and the formulation and implementation of the Company's employment and recruitment policies do not violate the above laws and regulations. At the same time, the Company has specified the labor remuneration, working hours, rest and vacation, labor safety and health, vocational training, insurance and welfare, special protection for female employees and other matters in the Collective Labor Contract and the Measures for Management of Leave of Employees to protect the legitimate rights and interests of employees.

By the end of 2022, the Company's female employees accounted for 17.1%, and it had 23 disabled employees, and the coverage rate of employees with signed labor contract was 100%. Employees and their children with difficulties in life have received active assistance from the Company. According to the relevant rules and regulations of the Company, assistance and condolences were regularly provided to children of employees with difficulties for education, to employees with serious illnesses, to the disabled, or during the Spring Festival or in case of an emergency, covering more than 400 employees and their families with the investment of about RMB 2 million.

## CARE FOR EMPLOYEES

COOEC adheres to the "people-oriented" concept, takes the promotion of the all-round development of employees as one of its important development goals, fully protects the basic rights and interests of employees, attaches importance to talent team building, meticulously cares for employees, strives to create an inclusive, equal, mutual trust and cooperative working atmosphere, and realizes the unity of company value and employee growth.

Provided assistance to over **400** employees and their family members

The amount of assistance reached about **200million yuan**

Labor contract for all employees **100%**

Women account for **17.1%** of the company's employees

There are **23** disabled employee

Number of active employees of the parent company	5,302
Number of active employees of major subsidiaries	4,312
Total number of active employees	9,614

Composition of specialties	
Specialty	Number of employees in this specialty
Production personnel	3,142
Technical personnel	4,040
Financial personnel	107
Operation management and project management personnel	2,325
Total	9,614

Educational background	
Category of educational background	Number (person)
Master's degree or above	1,362
Bachelor's degree	4,958
College degree	2,014
Technical secondary school degree and below	1,280
Total	9,614





▲ 20th Anniversary Celebration of "COOEC"

## REMUNERATION AND WELFARE

In 2022, the Company continued to deepen the implementation of the value-oriented remuneration distribution system and the post performance-based salary system, and to improve the employee remuneration and welfare system matching with employee positions and business development. It also strengthened and improved the linkage mechanism of performance assessment and income distribution, enhanced the realization method of performance bonus assessment, and established and perfected the constraint and incentive mechanism strongly linking the assessment of operating performance and the evaluation of individual work performance of employees with the distribution of benefit bonus. At the same time, the Company has gradually built a reward and incentive system involving production, technology, management and other factors, covering the setting of indicators at the beginning of the year, the evaluation of outstanding contributions, and the summary of important results at the end of the year, and continuously strengthened precise incentives for scientific research and personnel in key positions to provide remuneration and welfare guarantee for the Company's high-quality development.

The Company has carried out breakthrough reforms in key areas and links of the marketization of employee income distribution and the construction of the employee remuneration increase mechanism. According to the functional orientation of each organizational unit, the Company has conducted the gross payroll management by the classification of profit unit, cost unit and overseas company, established a mechanism linking quarterly benefit assessment with the benefit bonus distribution of personnel at all levels, in order to guarantee the completion of annual benefit targets through quarterly assessment, scientifically widen the distribution gap, and stimulate the constraint and incentive efficiency. At the same time, the Company enriched the "toolbox" of reward and incentive policies, optimized the immediate incentive scheme for engineering projects, actively adapted to the situation of building a powerful country in science and technology, focused on key links of technological innovation capability, explored the immediate incentive mechanism for technological innovation, and effectively promoted the improvement of the Company's technological innovation capability.



▲ Digital training

## EMPLOYEE DEVELOPMENT

In 2022, COOEC focus on building a "big talent" pattern, actively built a talent cultivation and use platform, and comprehensively promoted the construction of talent team in the new era, so as to provide guarantee for the Company's high-quality development.

### 1. Perfecting the industry-university-research talent cultivation mechanism.

Join hands with the government and colleges to build a new pattern of talent development, rely on the advanced manufacturing bases in Tianjin and other coastal areas and the advantages of science and education talents of colleges and universities to recruit and cultivate masters and doctors in cooperation with colleges and universities by means of order-based training, two-tutor education and industry-university integration, build the "Institute of Intelligent Manufacturing Industry", explore the talent training mode of "new apprenticeship system for enterprises", jointly hold training courses with key colleges and universities, and make innovation in the education mode of industry-education integration.



One person was named a senior technical expert



One person was named Craftsman of the Nation



4 people were named the Offshore Oil Craftsmen



27 people were included on the first list of master technicians

### 2. Enhancing talent service guarantee capability.

Construct a demonstration center for the practice of people-oriented concept and a diversified evaluation mechanism linking skill level certification, title appraisal and salary increase. Optimize the incentive mechanism, improve the systems related to allowances for technical/skilled experts and technicians, and promote the inclination of remuneration distribution to talents with outstanding contributions and at front-line key positions with hardship and danger.

### 3. Perfecting the industry-university-research talent cultivation mechanism.

Join hands with the government and colleges to jointly build a new pattern of "trinity" talent development, rely on the advanced manufacturing bases in Tianjin and other coastal areas and the advantages of science and education talents of colleges and universities to jointly recruit and cultivate masters and doctors in cooperation with colleges and universities by taking the order-based training, two-tutor education and industry-university integration as paths, build the "Institute of Intelligent Manufacturing Industry", explore the talent training mode of "new enterprise apprenticeship", jointly hold training courses with key colleges and universities, and make innovation in the education mode of industry-education integration.

### 4. Accelerating the scale-up of high-level talents.

Organize and carry out talent selection, cultivation and recommendation activities to actively promote the introduction of overseas high-level talents, and organize the selection of two-level technical experts in 2022, with one person selected as Senior Technical Expert, one person named as Great Country Craftsman, four persons named as a Craftsman of COOEC, and 27 technical experts recommended as the Company's first batch of special technicians. Actively recommend candidates to participate in the 16th Session of Highly Skilled Talents Selection and Commendation.



▲ Alliance of Marine Equipment (Talents) Industry



EMPLOYEE TRAINING

In 2022, COOEC carried out a total of 6,873 training sessions in the whole year with 251,700 participants and the per capita training hours of 171.16; the Company further promoted the use of the “Haixue” Platform, with a total learning time of about 718,000h. It has made innovation in the training methods to improve training efficiency, so as to provide talent support and guarantee for building a world-class engineering company with Chinese characteristics.

▼ Scene of the "ARC Cup" International Welding Competition



▼ Awarding of the "ARC Cup" International Welding Competition



EMPLOYEE HEALTH

The Company always adheres to the "people-oriented" concept, strictly abides by the laws and regulations on occupational health, strengthens labor protection, improves the production and operation environment, and protects the health and related rights and interests of employees. In 2022, in accordance with the responsibilities and requirements of the Law on the Prevention and Control of Occupational Diseases, the Company fully implemented the national laws and regulations on the prevention and control of occupational diseases, adhered to the principle of "prevention first and combination of prevention and control", highlighted the concept of "life first and health-oriented", committed to the monitoring of occupational health of employees and of workplaces exposed to occupational disease hazards, improvement of working conditions, prevention, control and elimination of occupational disease hazards, in order to actively create working environment and labor conditions conducive to the health of employees.

▼ Canteen



1.Fully implementing the main responsibilities for occupational disease prevention and control as an employer

In 2022, the Company fully fulfilled its main responsibilities for the prevention and control of occupational diseases in accordance with the Action Plan of COOEC for the Implementation of Health China. There was no occupational disease incident within the Company in the whole year. In June 2022, the Company passed the inspection of Tianjin Municipal Health Commission and was successfully selected as a Tianjin Health (Promotion) Enterprise.

Throughout the year, the Company has concluded the letter of responsibilities for occupational disease prevention and control with five involved entities, organized and carried out activities such as "Health Promotion Month", "Occupational Disease Prevention and Control Law" publicity week, and occupational health videos recording to actively publicize laws, regulations and knowledge on occupational disease prevention and control, and further strengthen occupational health management. The data detection of 21 monitoring points for occupational hazard factors and 37 types of work at each position of the Company has been completed according to the requirements, realizing inspection as needed.

2.Comprehensively and continuously promoting mental health work

In 2022, in accordance with the relevant requirements of the Circular on Strengthening Mental Health Work, the Company comprehensively carried out a series of special activities such as mental health assessment, consultation, training and reading clubs for all employees with the theme of "guarding the mental health of employees", completed the mental health assessment of

7,350 persons in total, opened a 7\*24-hour psychological assistance hotline, developed 15 psychological course videos, held 4 mental health lectures, 23 health training sessions, 5 free psychological consultations and 11 psychological reading clubs. Through the development of the series of mental health activities, the Company achieved good work results and further promoted the physical and mental health safety of employees, with the employee satisfaction rate of 98%.



▲ Preventive disinfection of imported materials

3.Upgrading the standard for personal care

After in-depth investigation inside and outside the system, the Company adjusted the quarterly standard for personal care from the original RMB 22/month/person to RMB 100/month/person, and completed the system revision. By raising the quarterly standard for personal care, the working conditions and sense of belonging of employees were further improved and a guarantee was provided to their life, health and safety. This action greatly encouraged the majority of employees for entrepreneurship. The employee satisfaction rate reached 99.3%.



▲ Workshop disinfection



▲ Lecture Hall on Maritime Work



# CHARITY

- Rural revitalization
- Assisted education
- Public welfare donation
- Voluntary service
- Overseas responsibilities



## CHARITY

In accordance with the relevant requirements of the Implementation Plan for Fulfilling Functions and Powers of the Board of Directors of the Company and the Measures for Management of Authorization by the Board of Directors, the Company has revised and improved the Measures for Management of Charity and Public Welfare of COOEC with focus on optimizing and adjusting the approval process and authority of donation quota, which was officially issued for implementation on July 7, 2022 upon the approval of the Board of Directors. The Company has realized that the relevant work process of charity and public welfare can be tracked, the nodes can be controlled, and the overall trend is towards standardization, institutionalization and standardization. Focusing on rural revitalization, the Company coordinated and promoted the Hope Primary School, voluntary services, assistance to students and the disabled, anti-epidemic supply guarantee, overseas donations and others.

▼ Rural revitalization - build “little dolphin vegetable plot”



## RURAL REVITALIZATION

COOEC attaches great importance to the consolidation and expansion of poverty alleviation achievements and rural revitalization, earnestly fulfills the social responsibilities as a state-owned enterprise in combination with its own actual operation, actively carries out work in poverty alleviation, rural revitalization and other aspects, and makes positive contributions to conveying corporate love, establishing a good corporate image and promoting social harmony. In 2022, the Company invested RMB 1.5 million in Libozhuang Village and Huangtukan Village for beautification of the environment, improvement of people's livelihood, industrial assistance, and increase of production and income.

To thoroughly implement the national rural revitalization strategy, three village stationed leaders were dispatched to key villages in Tianjin to continuously promote the rural revitalization. With the assistance of the village stationed team, the two villages respectively set up a village collective trading company, and signed cooperation agreements on rural revitalization with Tianjin Green World Modern Agriculture Co., Ltd., Tianjin College, University of Science and Technology Beijing and other relevant entities, built a new platform for village-enterprise interface, village-school interface, two-way empowerment, mutual benefit and win-win results, and joint construction. At the same time, Online and offline channels were utilized to sell “Liubanhong” garlic, Xiaozhan rice, seasonal fruits and vegetables and other special agricultural products. Throughout the year, the sales of special agricultural products such as “Liubanhong” garlic, Xiaozhan rice and seasonal fruits and vegetables reached RMB 4.06 million, marking phased progress in poverty alleviation.



▲ Rural Revitalization - Holding Mini Village Fair

In 2022, the company provided **1.5 million yuan** in aid to Libozhuang Village and Huangtukan Village

**Three cadres** were stationed on a temporary basis in key villages in Tianjin

Helped sell featured agricultural products worth **4.06 million yuan** in the whole year





▲ Rural Revitalization - Collective Learning of Village Stationed Team and Village Cadres



▲ Rural Revitalization - Transformation of Wasteland into Vegetable Garden

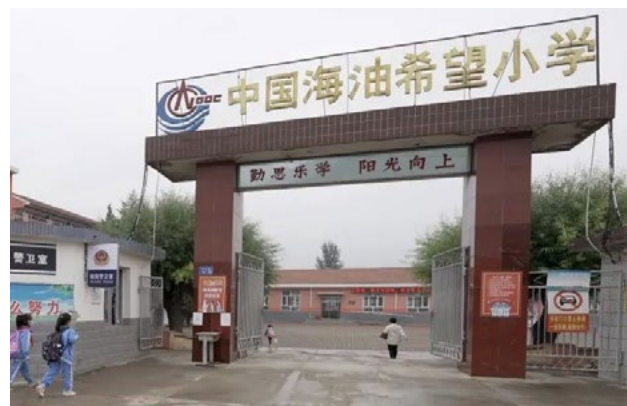


▲ Rural revitalization

## AIDING EDUCATION

In 2022, COOEC provided continuous assistance and condolences to two CNOOC Hope Primary Schools located in Tongzhazi and Xiaotangtougou in Longhua County, Chengde City, Hebei Province. First of all, the Company increased capital investment to strengthen capital guarantee. The annual donation to the special support fund is RMB 150,000, with a year-on-year increase of 5%, mainly for infrastructure upgrades and awards for outstanding teachers and students from the two schools. Secondly, the Company broadened the channels of loving assistance to enhance the effect of assistance. Through paired assistance and love crowdfunding, the Company extensively developed assistance pairs, and called on its employees to show love to the families of students with difficulties, so as to help them grow healthily. In the first half of this year, the Company declared paired assistance to 258 people, made donation to 862 people, and received donations of more than RMB 300,000.

At the same time, as the counterpart assistance unit of the two Hope Primary Schools, the Company has strengthened its responsibility and task implementation. Over the years, the Company has actively helped the school authorities to solve practical problems, consolidate infrastructure construction, and continuously improve the school environment, paving a way of hope for students in poverty-stricken mountainous areas. From the donation of stationery and books, winter coats and cotton clothes, to the construction of teaching buildings and the purchase of multimedia teaching equipment, the Company has gradually formed a long-term assistance model in combination with the actual situation, and closely focused on the fundamental goal of "assisting students and educating people", constantly made innovation in work ideas and working mechanisms, and strove to make the assistance to Hope Primary School refined, detailed, practical and warm.



▲ Education Assistance - Assistance to CNOOC Hope Primary School

## PUBLIC WELFARE DONATION

### Donation of anti-epidemic materials to Nyima County, Tibet

In August 2022, the COVID-19 broke out in Tibet Autonomous Region. The Company was concerned about Nyima County in Nagchu City 8,000 miles away. It is located in the only way to the Ali Great Ring Road, and its epidemic prevention and control situation is not optimistic as a result of many transit personnel, poor medical conditions and shortage of epidemic prevention materials. On September 4, 2022, 10 large boxes of anti-epidemic materials donated by COOEC for Nyima County, Nagchu City, Tibet, arrived at the epidemic prevention and control center of the county, containing more than 17,000 pieces of materials to fight against coldness and the epidemic in Nyima County, which fully reflected the high sense of social responsibility of the Company's leaders and employees and their profound friendship with the people of Nyima County.



▲ Assistance Kits Arriving in Tibet

## VOLUNTARY SERVICE

In recent years, the Company has continued to attach importance to the development of charity and public welfare undertakings, vigorously advocated voluntary service activities, showed care to special children, left-behind children and other vulnerable groups, and stimulated efficiency and injected vitality into charity work. It has successively established volunteer service teams such as "Future Power", "Yueshan" and "Tongxinyuan" volunteer service teams.



Volunteering ▶



### "Future Power" youth volunteer service

COOEC promotes the normalization and standardization of "Future Power" youth volunteer service activities by organizing "Future Power" volunteer services with the themes of epidemic prevention and control, rural revitalization, Lei Feng Day, World Oceans Day and others. Volunteer service activities such as "Transformation of Wasteland into Vegetable Garden" rectification and spring ploughing assistance to farmers have been carried out to help rural revitalization.

◀ "Future Power" Offering Assistance to Rural Revitalization

### "Yueshan" volunteer service team

"Yueshan" volunteer service team is organized and established by the Company's subordinate units, such as Shenzhen Technical Service Co., Ltd. "Yueshan" volunteers persist in carrying out loving assistance activities at Yangguang Jiayuan Qizhi Nursing Home in Binhai New Area, Tianjin, bringing warmth and help to the disabled children. Yangguang Jiayuan Qizhi Nursing Home is the only private non-profit institution in Binhai New Area that cares for intellectually disadvantaged groups. Its daily necessities and food are donated by the caring community team and Chinese and foreign volunteers.



In addition, Yueshan volunteers also organize activities such as donating clothes for poverty-stricken areas and money to CNOOC-aided Hope Primary Schools, participating in the “campaign of 10,000 Enterprises Assisting 10,000 Villages” Qinghai Student Aid Program, funding students in need to go to school, and condoling with the families of overseas employees.



▲ "Yueshan" Volunteers Carrying out Love Activities in Yangguang Jiayuan Qizhi Nursing Home



▲ "Tongxinyuan" Volunteer Service Team Carrying Out Love Activities

"Tongxinyuan" volunteer service team

The "Tongxinyuan" volunteer service team, led by the Company, mainly provides assistance to special groups such as left-behind children and autistic children. Nearly 1,000 employees are organized to donate and assist in pairs children in need in Tibetan areas, CNOOC Hope Primary School and the villages assisted in pairs, raising more than RMB 150,000 and pairing with 49 children in need.

On April 26, 2022, volunteers from Installation Branch went to Xiangyu Autism Rehabilitation Center in Binhai New Area, Tianjin to carry out love activities.

On May 30, 2022, volunteers from Qingdao Company went to Yihe Jiayuan Kindergarten in Xihai New District, Qingdao to carry out love activities.

OVERSEAS RESPONSIBILITIES

As the main force of CNOOC's international development, the Company has responded positively to the national Belt and Road Initiative for many years, given full play to the advantages of collaborative development, continued to expand international cooperation, and created a new situation of high-quality and sustainable development of overseas business. The consortium of Offshore Oil Engineering Co., Ltd. (COOEC) and China Petroleum Engineering and Construction Corporation (CPECC) won the bid for the Kingfisher EPC3 turnkey project in Uganda. The contract was formally signed on February 8, 2022.

The Uganda project has created a win-win pattern for the development of countries along the "Belt and Road" and Chinese enterprises to promote and complement each other. According to preliminary statistics, this project will provide more than 20,000 jobs to Uganda, generate considerable economic benefits to the local and even the East African region, and help the rapid social

and economic development. On March 29, 2022, CNOOC Uganda Co., Ltd., Party A of the Project, received a donation letter from the local government of Uganda, requesting CNOOC Uganda Co., Ltd. and its contractors to donate money to transform and renovate the Entebbe Child Welfare School (the Entebbe City is located in southern Uganda, close to Lake Victoria and 34 kilometers from the capital Kampala). In light of the actual situation, the Chinese side specially arranged relevant personnel to visit the school and conducted in-depth communication with the responsible personnel, in order to comprehensively understand and master the overall situation of the school and the problems and difficulties at site. According to the overall requirements and arrangements of CNOOC Uganda Co. Ltd., the Company donated charity money to the school to improve the learning and living conditions of local children with difficulties. Subsequently, the Company took the project as a bridge and link to strengthened mutual assistance and cooperation, deepened China-Africa friendship, and add glories to the CNOOC's business card.



◀ Entebbe Child Welfare School

2023 CHARITY WORK PLAN

I. Rural revitalization

- 1. Hold the “key point” of industrial prosperity, and accelerate the cultivation of advantageous industries. Explore the development and expansion of village collective enterprises, promote the formation of industry chain system, and make a brand of characteristic agricultural products in villages. Explore industrial projects away from villages to provide jobs for some villagers and bring stable and sustainable operating income to the village collective.
- 2. Take the remediation and improvement of living environment as an opportunity to build a harmonious countryside. Build rural roads and green belts, promote the creation of “Xiaohaitun Vegetable Garden”, Huangtukan village main road widening project, abandoned pond remediation and other key projects.
- 3. Implement the cultivation of rural customs and civilization, and promote the change of customs in rural areas. Carry out care services for children, the elderly and the disabled, construction of activity centers for the elderly and beautiful villages and other projects, solve the problems around villagers with heart and soul, and elevate villagers’ happiness index.

II. Hope Primary School

- 1. Continuously communicate with CNOOC Hope Primary School, timely learn about and track the difficulties and appeals of teachers and students in local schools, and cooperate with the Company’s Youth League Committee, labor union and subordinate units to provide relevant assistance and aids.
- 2. Make regular donations to the two Hope Primary Schools this year according to the actual situation.

III. Other charitable work

- 1. Conscientiously prepare the Company's production, construction and investment plan for charity work in 2023. Continue to do a good job in the declaration and approval of various charitable donations of the Company.
- 2. Vigorously carry out the publicity of charity and public welfare culture, and create a good atmosphere of “everyone can be charitable and everyone enjoys charity”. Actively guide and encourage employees to participate in social welfare, voluntary services, charity and love activities, and practice the social responsibility and mission of state-owned enterprises in the new era with practical actions.





ATTACHMENTS

KEY PERFORMANCES

Indicator	2020	2021	2022
Total assets (RMB10,000)	3,328,189.62	3,465,426.38	4,263,867.49
Net assets (RMB10,000)	2,265,106.00	2,274,207.10	2,370,298.97
Total revenue (RMB10,000)	1,786,257.63	1,979,548.12	2,935,836.83
Net profit (RMB10,000)	36,553.13	37,199.29	144,968.98
Taxes (RMB10,000)	63,306.69	54,384.51	108,549.44
Earnings per share (RMB)	0.08	0.08	0.33
Natural gas consumption (100 million cubic meters)	0.0085	0.0105	0.0141
Diesel consumption (tons)	6.2709	7.7811	8.5290
Electricity consumption (100 million kWh)	0.8993	1.2333	1.3088
Energy conservation (ton of standard coal)	2,292	3,368	4,183
Total greenhouse gas emissions (tons of carbon dioxide equivalent)	28.2466	34.9853	38.4650
Total fresh water consumption (10,000 tons)	85.9680	135.1936	176.5147
Total water saving throughout the year (10,000 tons)	4,252	3,990	4,316
Number of employees	7,895	7,932	9,614
Number of female employees	1,345	1,344	1,648
Total number of training sessions (10,000 hours)	97	115	144
Occupational health examination coverage (%)	99.93%	100%	100%

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	102-4	Business location	P7
	102-5	Ownership and legal form	P7
	102-6	Markets served	P7
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READER FEEDBACK

Dear readers:

Hello! Thanks for your time to read our 2022 ESG Report. In order to continuously improve the Company's ESG efforts and management, we are particularly interested in hearing your comments and suggestions to help us continuously improve our report. Please answer the relevant questions in the feedback form below and give us your feedback:

Multiple-choice questions (please tick in the corresponding position)

Options	Excellent	Good	General	Poor
1. The report fully and accurately reflects the significant impacts of the Company on economy, society and environment				
2. The information, indicators and data disclosed in the report are clear, complete and accurate				
3. Whether the language description, content arrangement and graphic design of the report are clear and legible				

Open-ended questions:

1. What is your overall assessment on this report?
2. What is the most satisfactory aspect of this report?
3. What information do you think is not covered in this report?
4. What are your suggestions for our future ESG work and reporting?

You are welcome to provide personal information if possible

Name:

Employer:

Tel.:

Email:

For more corporate information, please visit the Company's official website:

<https://www.cnoocengineering.com>



