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**INTEGRATED CAPACITY
INFINITE
CAPABILITY**

2022

COSCO SHIPPING Energy Transportation Co., Ltd.

Sustainability Report



Address: No.670 Dongdaming Road, Hongkou
District, Shanghai, China
Postcode: 200080
Tel.: 86-21-65967678
Fax: 86-21-65966160

HKEX Code: 01138
SSE Code: 600026

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About This Report

Reporting Period

This Report covers the period from 1st January to 31st December, 2022, and includes additional information beyond the stated reporting period.

Organizational Coverage

The Report covers COSCO SHIPPING Energy Transportation Co., Ltd. and its subsidiaries, which is also referred to as "COSCO SHIPPING Energy", "the Company" or "we".

Reporting Cycle

Our sustainability (CSR) report is released in each fiscal year. This Report is the 15th sustainability (CSR) report released by the Company since 2008.

Data Source

All information and data included in this Report come from the official documents and related statistics of COSCO SHIPPING Energy.

Reference Standards

This Report is prepared with reference to the *Environmental, Social and Governance Reporting Guide set out in Appendix 27 to the Rules Governing the Listing of Securities on Main Board (Main Board Listing Rules) of the Stock Exchange of Hong Kong Limited, Guidelines No. 1 for Self-Regulation of Listed Companies—Standardized Operation of Listed Companies released by the Shanghai Stock Exchange, and SDG Compass by the United Nations*. For some of the content on addressing climate change, it refers to the *Guidance on Climate-Related Disclosure* of the Stock Exchange of Hong Kong Limited and the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Reporting Principles

Materiality: Following the procedure of identifying material topics stipulated by the *Environmental, Social and Governance Reporting Guide*, we identify ESG factors concerned by internal and external stakeholders based on our communication and surveys with them and then determine material topics for disclosure.

Quantitation: This Report discloses quantitative targets and performance data of environmental and social indicators. All indicators have specified statistics scopes and calculation methods. Performance data for three consecutive years are disclosed under partial indicators.

Balance: The Report provides an unbiased picture of the Company's performance and avoids selections, omissions, or presentation formats that may inappropriately influence a decision or judgment by the report reader.

Consistency: The Report follows the statistics disclosure methodology adopted in the previous annual report. Changes will be indicated in this report, if any.

Report Preparation Process

This Report is prepared in according to the following procedures, namely, the analysis of CSR standards at home and abroad, the bench marking of CSR reports released by peer companies, the collection of report data, the investigation and interview of report preparation, the materiality analysis, the review and approval of business departments and the Board of Directors, the release and review of the report, etc., to ensure that the report information is objective, standardized, honest and transparent.

Report Formats

The Report is released in printed and online forms. It is available for online query and downloads via the following link: <http://en.energy.coscoshipping.com/>

Report Languages

The Report is available in simplified Chinese, traditional Chinese, and English. In case of any discrepancy, the simplified Chinese version shall prevail.

Contact Information

Office of Board, COSCO SHIPPING Energy Transportation Co., Ltd.

Address: No.670 Dongdaming Road, Hongkou District, Shanghai, China

Postcode: 200080

Tel.: 86-21-65967678

Fax: 86-21-65966160

E-mail: ir.energy@coscoshipping.com



Message from the Chairman

In 2022, climate change, digital technology iteration, and geopolitical events accelerated global supply chain transformation. As an indispensable link in global logistics and supply chains, the shipping industry is witnessing transformative changes of the world and is pushing forward green, intelligent, and resilient development. It is widely recognized, both within and outside the shipping industry, that green transition is key to sustainable development. Following the CSR philosophy of Integrated Capacity and Infinite Capability, COSCO SHIPPING Energy consistently provides sound and high-quality services to its global customers and keeps being the pioneer of green shipping and low-carbon development to build a cleaner and more resilient business ecosystem.

We support energy security. Devoted to becoming an outstanding leader in global energy transportation, COSCO SHIPPING Energy works efficiently to facilitate energy logistics while consolidating our energy transportation

capacity. We have successfully developed the CNOOC Project and QatarEnergy LNG Shipping Project, etc. Meanwhile, by leveraging our extensive global energy transportation network, we seek to provide multi-dimensional and integrated customer services to our customers and work with them to ensure a secure and reliable energy supply.

We protect the lives of crew members. COSCO SHIPPING Energy adheres to the safety policy "people-oriented, safety first, prevention-oriented, and comprehensive management". We also strictly implement the responsibility for work safety, classify safety risks, and thoroughly investigate hidden hazards to reinforce our safety bottom line. In addition, we are committed to fostering a culture of ship safety and encourage every crew member to be vigilant and actively engaged in safety actions, shaping a safe workplace for crew members with all-around protection.

We protect the marine environment. Recognizing the profound impact of climate change on the shipping industry, COSCO SHIPPING Energy is continuously exploring new ship fuels with a focus on LNG dual-fuel VLCC operation practice. At the same time, we attach great importance to the potential opportunities brought by climate change, work together with upstream and downstream value chains to explore the transportation of liquid carbon dioxide, and participate in global climate change governance. Additionally, biodiversity conservation is imperative, for which COSCO SHIPPING Energy strives to achieve the environmental goals of "zero pollution, high energy efficiency, and low emissions" to minimize the environmental impact of shipping on the ocean and atmosphere.

We contribute to social harmony. Through our commitment to creating an inclusive and equal workplace that attracts and trains top-tier talent from

around the world, we empower our employees in their career development to foster a sense of belonging and fulfillment among our workforce. We also support community development by helping farmers in poverty-stricken areas to increase their income and conducting marine emergency rescue to give back to the society with practical actions and to spread hope.

Ocean is the cradle of our strengths and ambition. We will actively explore effective paths, actively serve and integrate into the new development pattern, strive toward our strategic goals of four world-leading. In response to global standards initiatives, we will work with stakeholders to build a high-quality energy transportation ecosystem and deliver energy for the world's sustainable development.

Ren Yongqiang, Chairman of COSCO SHIPPING Energy

任永强



About Us

Company Profile

COSCO SHIPPING Energy Transportation Co., Ltd. is a specialized company engaging in shipment of energy, including oil and natural gas, operating under China COSCO SHIPPING Corporation Limited. The Company is a merged entity from the energy transportation arms of China Ocean Shipping Company and China Shipping Company. Established in Shanghai on June 6th, 2016, the Company is committed to becoming a whole-process energy transportation solution provider, providing customers with all-type, all-location and all-rounded energy shipping services.

Business Services

COSCO SHIPPING Energy focuses on two core businesses, oil shipping and Liquefied Natural Gas ("LNG") transportation. Boasting years of rich experience and great brand reputation, the Company has formed a good corporate image in the industry.

COSCO SHIPPING Energy is the world's largest oil shipping company in terms of fleet size, covering all mainstream tanker types, and stands out globally with its complete type of vessels. We can fully leverage the advantages of ship types and routes, improve the overall operational efficiency of the fleet, and strive to create a new win-win situation between customers and shipowners, as well as the integration of domestic and international voyages by employing crude and product tankers across different sizes.

COSCO SHIPPING Energy is a leader in China's LNG shipping business and an important participant in the world's LNG shipping market. COSCO SHIPPING LNG Investment (Shanghai) Co., Ltd., a wholly-owned subsidiary of the Company, and China LNG Shipping (Holdings) Limited, in which the Company holds 50% equity, are the leading large-scale LNG transportation companies in China, with shipping routes covering gas sources such as Australia, Europe, America, and major LNG markets such as China, Japan, South Korea, India, France, and Spain. COSCO SHIPPING Energy has become a key player in the global LNG shipping market.

Safety Management

COSCO SHIPPING Energy has always adhered to the principle of "World-Leading Safety Marketing", and practises world-class safety management of energy shipping. After years of exploration and competition, the Company has established a stable and efficient safety management system, as well as a technical, transportation and ship management system that continuously upgrades itself.

Global Presence

COSCO SHIPPING Energy has established a global marketing service system and global security emergency support system. By giving full play to the functions of global offices, the Company keeps expanding its overseas market share, fully utilizes its fleet size advantage, and has achieved well-diversified clients, sources of cargos and shipping routes.



Vision

To become an outstanding leader in global energy transportation



Mission

Deliver Energy for the world

Strategic goals

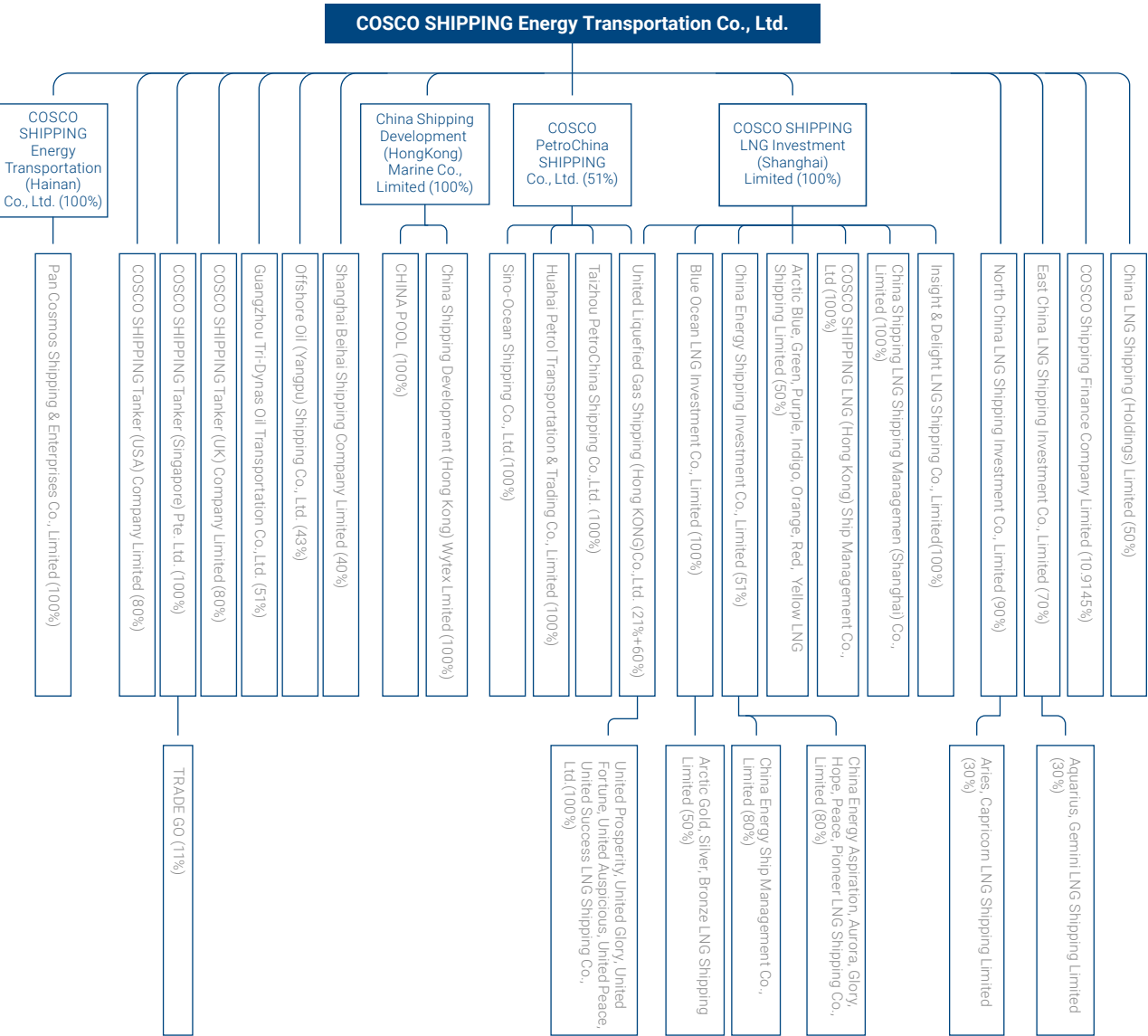
The world-leading fleet size, the world-leading business structure, the world-leading safety marketing, and the world-leading business modes.

Values

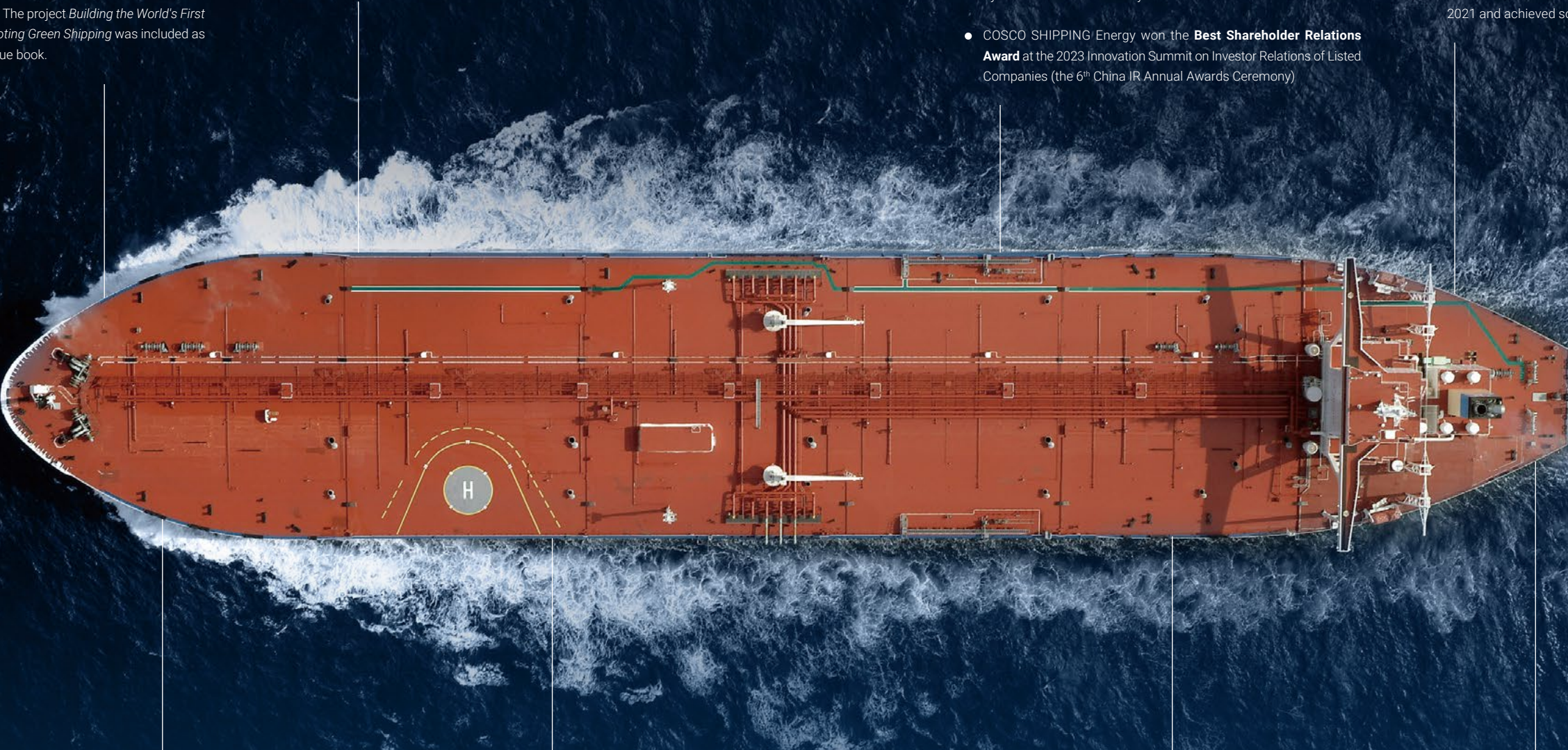
Credibility
Safety
Efficiency
Transparency

Parameters	2022		2021		2020	
Total assets (RMB billion)	(A Share)	68.25	(A Share)	59.39	(A Share)	65.96
	(H Share)	68.25	(H Share)	59.39	(H Share)	65.96
Operating revenue (RMB billion)	(A Share)	18.66	(A Share)	12.70	(A Share)	16.39
	(H Share)	18.57	(H Share)	12.65	(H Share)	16.27
Net profit attributable to shareholders of listed companies (RMB billion)	(A Share)	1.46	(A Share)	-4.98	(A Share)	2.37
	(H Share)	1.46	(H Share)	-4.99	(H Share)	2.38

Organizational Structure



Honors and Awards

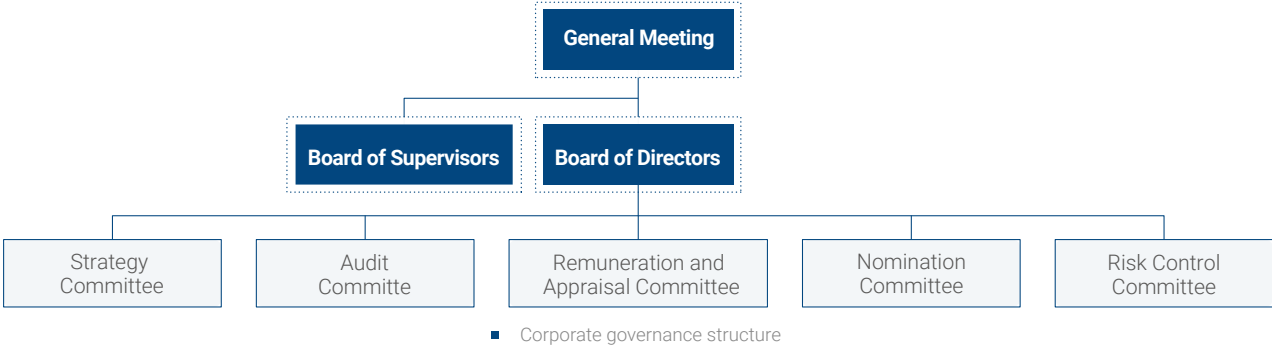
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- COSCO SHIPPING Energy was listed in the indexes of **Top 50 Central SOEs in ESG Governance and Top 50 Central SOEs in ESG Risk Management** at the Building an ESG Ecosystem and Promoting Sustainable Development - ESG China Forum 2022 Winter Summit of the 5th China Enterprise Forum. The project *Building the World's First LNG Dual-Fuel VLCC and Promoting Green Shipping* was included as an excellent ESG case in the blue book.
 - COSCO SHIPPING Energy was awarded the **GoldenBee Excellent CSR Report 2022 – Growth Award** at the 15th China CSR Reporting International Symposium.
 - COSCO SHIPPING Energy was awarded the **2022 Listed Company with the Greatest Investment Value** at the 2022 Listed Companies Summit (the 16th Crystal Ball Awards for Sell-side Analysis) hosted by Securities Market Weekly.
 - COSCO SHIPPING Energy won the **Best Shareholder Relations Award** at the 2023 Innovation Summit on Investor Relations of Listed Companies (the 6th China IR Annual Awards Ceremony)
 - COSCO SHIPPING Energy was granted the title of **Excellent Enterprise** at the 2021 Shanghai CSR Report Release (10th Anniversary Conference), and our CSR report received an **excellent rating**. We have released CSR reports for five consecutive years from 2017 to 2021 and achieved sound social performance.
 - COSCO SHIPPING Energy's *2021 Corporate Social Responsibility Report* received the title of **2022 GoldenBee CSR China Honor Roll - ESG Competitiveness Carbon Peak & Neutrality Pioneer Award** at the 17th International CSR Forum, and the Company's LNG Dual Fuel VLCC Case was included in the **2022 GoldenBee CSR Competitiveness Case Collection**.
 - COSCO SHIPPING Energy won the **2022 CSR Model Award** at the 11th FINANCE Summit (Sustainable Business Conference 2022).
 - COSCO SHIPPING Energy was granted the **2022 Green Sustainability Contribution Award** at the 2022 International Green Zero-Carbon Festival.
 - COSCO SHIPPING Energy won the **2022 Greatest Investment Value Award** at the "Capital Power" 2022 Annual Event.
 - COSCO SHIPPING Energy received the **China Ethical Enterprise Award** at the 22nd China Business Top 100 Forum.
 - COSCO SHIPPING Energy won the **Greatest Investment Value Award** in the 9th Top 100 Hong Kong Listed Companies Awards Ceremony.
 - COSCO Shipping Energy was awarded the **"2021 Hongkou District Key Enterprise Special Contribution Award"** by the Shanghai Hongkou District Government.
 - COSCO SHIPPING Energy won the **2021 Asset and Equity Gold Award** by Shanghai United Assets and Equity Exchange.
 - The two collectives of MT XIN JIN YANG and MT YUAN HUI HU were recognized as **One-Star National Youth Civilization**.

Corporate Governance

COSCO SHIPPING Energy has been strictly complying with the governance requirements of listed companies, and has established an effective and standardized governance system to strengthen the standardized and effective corporate governance, thus improving the ability of modern corporate governance.

Governance Mechanism

The Company has established a corporate governance structure and mechanism, with the General Meeting of Shareholders, the Board of Directors, the Board of Supervisors, and the specialized committees at the center. We constantly revise and improve the rules of procedure to ensure well-regulated, efficient, and full performance of all governance duties and continue to improve corporate governance.



General Meeting of Shareholders

The General Meeting of Shareholders provides a direct channel for the Board of Directors to communicate and establish a positive relationship with shareholders. To ensure equal participation and the exercise of shareholders' rights, the Company convenes the General Meeting of Shareholders annually in strict accordance with the notification and convening procedures stipulated in relevant laws and the *Articles of Association*. In 2022, the Company organized one general meeting and two extraordinary general meetings to deliberate on 19 proposals.

Board of Directors

By the end of 2022, the Board of Directors consisted of eight directors, including four independent non-executive directors (50%), and one female director (12.5%). In 2022, the Board convened a total of 17 meetings to evaluate 69 proposals to review the Company's financial and operational performance.

The Company has established a board diversity policy, requiring that the Board comprise individuals of different genders, ages, culture and educational backgrounds, ethnicities, professional experiences, skills, and knowledge, to ensure scientific decision-making by the Board of Directors.

In 2022, the Company's independent non-executive directors participated in the Board meetings, carefully reviewing proposals presented and expressing their independent and objective opinions to safeguard the legitimate rights and interests of the Company and its shareholders. Their involvement fostered a system of checks and balances within the Board's decision-making processes. Throughout this reporting period, the independent non-executive directors did not raise any objections concerning the Company's proposals and other matters at the Board meetings.

Specialized Committees of the Board

Five specialized committees, namely the Strategy Committee, the Audit Committee, the Remuneration and Appraisal Committee, the Nomination Committee, and the Risk Control Committee are set under the Board. These specialized committees are composed of accounting, law, HR and other fields professionals. In 2022, a total of 20 specialized committee meetings were held to deliberate on 34 proposals.

- The Strategy Committee is responsible for analyzing the Company's long-term development strategy, major investment decisions, financial budgets, and strategic plans for investment projects, and offers suggestions to the Board. Chaired by Mr. Ren Yongqiang, Chairman of the Company, the Strategy Committee comprises six directors, including two independent non-executive directors, Mr. Li Runsheng and Mr. Zhao Jinsong, both with extensive expertise in shipping, petrochemicals, and maritime law. In 2022, the Strategy Committee held two meetings to review three proposals.
- The Audit Committee is responsible for reviewing the Company's financial reports, the employment of independent auditors at home and abroad, and review and approve audit related services while supervising the Company's internal financial reporting procedures and management policies. The audit committee is composed of three independent non-executive directors, with Mr. Victor Huang serving as the chairman, who possesses rich accounting and financial management expertise. In 2022, the Audit Committee convened eight meetings to review 17 proposals.
- The Remuneration and Appraisal Committee is responsible for evaluating and offering suggestions on the remuneration composition of directors and senior management. The Committee consists of three independent non-executive directors, with Mr. Li Runsheng serving as the Chairman. In 2022, the Remuneration and Appraisal Committee held three meetings to review five proposals.
- The Nomination Committee is responsible for nominating directors and providing recommendations to the Board. The Committee consists of three independent non-executive directors, with Mr. Wang Zuwen serving as the Chairman. In 2022, the Nomination Committee held four meetings to review four proposals.
- The Risk Control Committee provides guidance to internal departments in evaluating the effectiveness of internal control and risk management, while implementing regulatory directives on advancing the rule of law for listed companies both domestically and abroad. The Committee consists of three directors, with Mr. Zhao Jinsong, an independent non-executive director, serving as the Chairman. In 2022, the Risk Control Committee held three meetings to review five proposals.

The Board of Supervisors

By the end of 2022, the Board of Supervisors has four supervisors, including two employee representatives supervisors. The Board of Supervisors is responsible for reviewing financial reports and other financial information submitted by directors at the General Meeting of Shareholders and supervising the conduct of the Board of Directors and senior management in their duty performance. In 2022, the Board of Supervisors held 7 meetings to review 22 proposals.

Senior Management

By the end of 2022, the Company's senior management consists of eight executives, including two females, accounting for 25% of the total. The senior management is the executive body and reports to the Board of Directors. The authority of senior management is strictly defined by *the Articles of Association* and other corporate governance documents.

Internal Control and Compliance

COSCO SHIPPING Energy takes the company's *Compliance Management Measures* as the overall outline, takes the comprehensive management system as the main body, and focuses on special compliance guidelines to continuously improve the company's ability to prevent and respond to major risks, and effectively improve the level of internal control and compliance management.

COSCO SHIPPING Energy remains steadfast in its ongoing efforts to improve its compliance management framework by optimizing its compliance organizations and enhancing the leadership roles of the Board of Directors, Risk Control Committee, and Compliance Management Committee to ensure compliance across the enterprise. To achieve this goal, the business departments shoulder major responsibilities, the compliance department leads the work, with the discipline inspection and supervision department serving a supervisory function. The compliance system has been improved as we have issued compliance guidelines for key areas - the *China Pool Anti-monopoly Compliance Manual*, revised the *Compliance Management Measures* and *Shore-based Management Manual Version 2.0*, and organized the identification and investigation of compliance risks at all levels, fields, and directions within the system. The Company's "compliance risk database" and "law and regulation database" are established with key compliance positions confirmed. At the same time, we guide our subsidiaries to establish their compliance management systems, extending the compliance system to all units within the Company. We strengthen compliance mechanisms, including risk identification and assessment, requiring the participation of legal personnel in the whole process of major projects, and establish a closed-loop case-handling process. To cultivate a culture of compliance, we conducted 17 specialized compliance training sessions and released four issues of Ship Compliance to ships and shores in 2022, improving compliance on the front line.

We attach great importance to the creation, protection, and use of intellectual property, and expect our employees to take responsibility for the ownership and confidentiality of any intellectual property generated or acquired during their work. Meanwhile, to prevent any IP infringement, we refrain from knowingly infringing valid patents of any third party or ignoring the confidentiality obligations owed to any third party.

Business Integrity Management

COSCO SHIPPING Energy strictly abides by the *Constitution of the Communist Party of China*, the *Regulations on Disciplinary Actions of the Communist Party of China*, the *Rules for the Supervision and Enforcement of the Discipline Inspection Bodies of the Communist Party of China*, *Several Provisions on Business Integrity of Leaders of State-Owned Enterprises*, the *Criminal Law of the People's Republic of China*, and the *Supervision Law of the People's Republic of China*. We address business corruption at the source and carry out internal integrity inspection, audit, supervision, and governance throughout all business activities to maintain our commitment to business integrity. In 2022, no corruption-related litigation was registered.

Integrity System



The Company improves the integrity system by formulating the *Anti-commercial Bribery Management Measures*, the *Anti-commercial Bribery Manual*, *Management Measures for Corruption Risk Prevention and Control*, and the *Rules for Handling Whistle-blowing and Accusations*, etc. The Board of Directors and management of the company have made anti-commercial bribery commitments, approved the company's anti-commercial bribery management system and supervised its implementation, promoting the establishment and improvement of the Company's anti-commercial bribery management system. The Secretary of the Company's Discipline Inspection Commission is the competent leader in anti-commercial bribery and also serves as the Chief Anti-commercial Bribery Compliance Officer of the Company; The Discipline Inspection Department/Supervision and Audit Department is the management department of the Company's anti-commercial bribery.

Supply Chain Integrity



The Company conducts rigorous due diligence on potential suppliers, which includes an assessment of their basic information, shareholders, actual controllers, actual beneficiaries, reputation, any history of commercial bribery in the past three years, penalties imposed by administrative authorities, and their anti-commercial bribery policies, etc. We require our suppliers to sign the *Anti-commercial Bribery Commitment* before entering into supplier pool and we include anti-commercial bribery clauses in bidding documents and business contracts. Suppliers found to have engaged in commercial bribery will be disqualified and added to our commercial bribery blacklist.

Whistle-blower Protection



The Company has designated multiple channels for whistle-blowing, including a hotline, email address, and mailbox. Reports can be made through letters, calls, emails, and online messages. We have established clear procedures for the handling and supervision of whistle-blower reports, which are organized in a hierarchical structure by management authorities. We implement a whistle-blower protection system, strictly maintaining confidentiality of the whistle-blower's name, workplace, address, and other basic information, as well as the content of the report. Relevant information is strictly prohibited from being disclosed to the organization or personnel being reported, and protection is provided when the personal and property safety of the whistle-blower and their close relatives is threatened due to the report.

Anti-commercial Bribery Training



The Company has incorporated anti commercial bribery into its training system, organizing at least one anti commercial bribery training every year to promote relevant knowledge, laws and regulations, institutional provisions, and risk prevention and control requirements, and standardize the behavior of company employees. Targeted anti-commercial bribery promotions were carried out for suppliers, and employees in important business areas. In 2022, the Company has conducted special integrity training for directors, employees, and crew members.

Targets	Training time/theme/content	Number of participants	Hours
Directors of the Board	Engagement in the training for the directors and supervisors organized by the Shanghai Stock Exchange and COSCO SHIPPING Group	11	17
Employees	Integrity education for young employees on the theme of <i>supporting the growth of young employees and enhancing integrity</i>	97	2
Crew	Discipline and typical case education for crew	63	3

Transparent Communication

We maintain close communication with investors through multiple channels and optimize the information disclosure mechanism to ensure that any information disclosed is, authentic, accurate, complete and compliant with regulations.

Standardized information disclosure: In 2022, the Company released five regular reports, including the 2021 annual report, the CSR report, the 2022 quarterly reports and interim report, and issued a total of 74 provisional announcements, maintaining a high level of information disclosure.

Multi-dimensional communication: The Company has diversified investor communication channels, which include conference call, investor survey, strategy meetings, roadshows, Shanghai Stock Exchange e-interaction, and investor hotline to convey our messages to the capital market effectively. In 2022, our investor relations activities covered 4,518 participants.

ESG Management

We value our stakeholders including customers, investors, the government, partners, employees, communities, and the environment. Following the CSR philosophy of Integrated Capacity and Infinite Capability, we listen and respond to the demands of stakeholders and work with them in taking practical and effective CSR actions to contribute to sustainable development.

Board Statement

COSCO SHIPPING Energy attaches great importance to environmental, social, and governance (ESG) matters that are critical to the Company's sustainable development, maintains a high level of corporate governance, and complies with international and local corporate governance standards to safeguard the interests of shareholders and other investors, clients, suppliers, employees, and the general public.

The Board of Directors of COSCO SHIPPING Energy, the highest decision-making body responsible for ESG governance, formulates and reviews policies and routine matters related to the Company's sustainable development and ESG governance. It also monitors ESG material topics that may affect the Company's business, operations, and shareholders and other stakeholders' interests and assumes full responsibility for ESG strategies and reporting. In 2021, the Board assessed, determined, and ranked material topics that bore heavily on the Company, discussed and determined the Company's sustainable development priorities based on the external sustainable development environment and the Company's development strategy. In 2022, given both internal and external changes and current development of the Company, the Board of Directors re-evaluated material topics and their ranking, prioritized 11 material topics related to governance, economy, and environment, as well as society in this report to address stakeholder concerns.

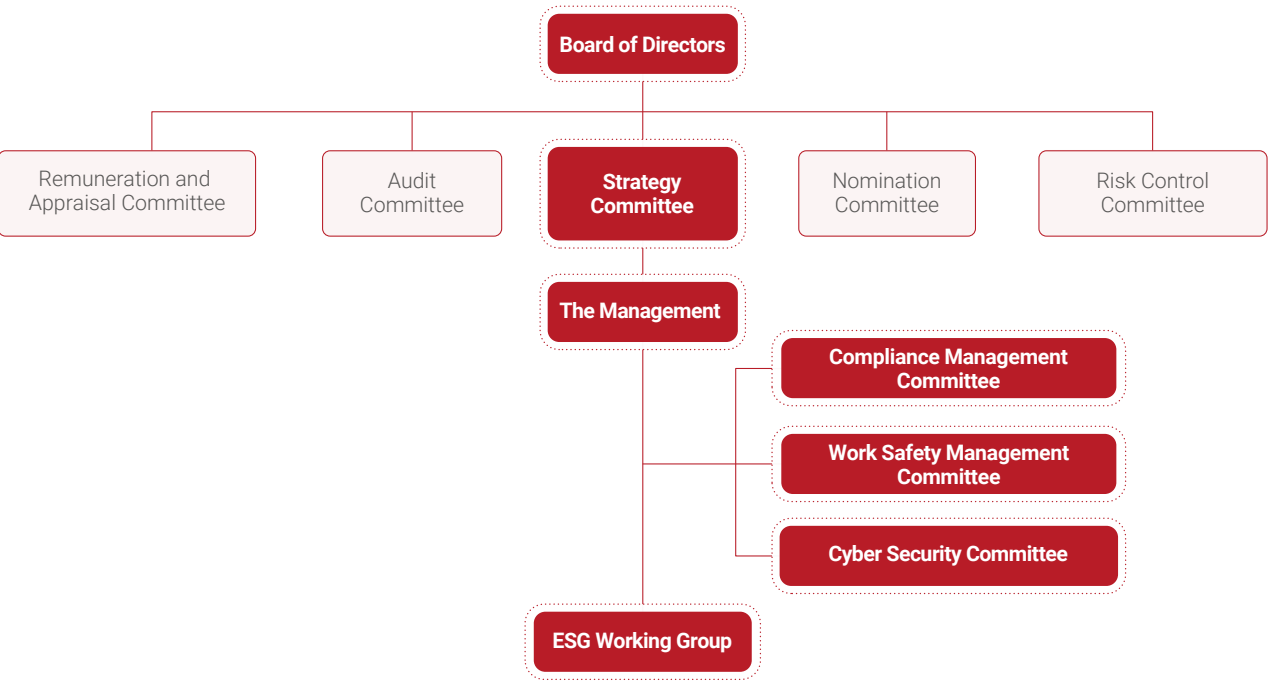
The Company established the ESG goal management mechanism, setting long-term safety goals (zero injuries, zero workplace accidents, and zero environmental pollution), environmental management goals (zero pollution, higher energy efficiency, and lower emissions), and major ESG performance parameters including carbon emissions and energy consumption. The Board of Directors discusses and conducts annual review on ESG performance regularly. Moreover, to achieve ESG goals, the improvement in safety performance and environmental protection will be linked to executives' overall performance reward.

This report provides a detailed disclosure of the progress and effectiveness of COSCO Shipping Energy's ESG work in 2022, which was approved by the 10th Board of Directors at its second meeting in 2023 on March 30th, 2023. The Board of Directors and all its members guarantee that this report is free of any false records, misleading statements, or major omissions and take individual and joint responsibility for its authenticity, accuracy, and completeness.



Management Structure

COSCO SHIPPING Energy continues to improve its ESG management structure to see that ESG management is fully integrated into corporate governance.



■ ESG management structure of COSCO SHIPPING Energy

Board of Directors: As the highest decision-making body responsible for the Company's ESG matters, the Board of Directors assumes full responsibility for ESG strategies and reporting. It makes overall arrangements, advances ESG management, and reviews relevant performance. To improve the Board's performance on ESG management, in 2022, the Company organized special training on "digital, green, low-carbon, and intelligent development", "carbon neutrality and carbon peaking", Board duty performance, and the regulatory policies of the China Securities Regulatory Commission and the Shanghai Stock Exchange.

Strategy Committee: Assist the Board of Directors in overseeing key ESG issues, responsible for conducting research on the Company's sustainable development, environmental, social, and governance strategies, setting goals, establishing evaluation mechanisms, and providing recommendations, and carrying out ESG governance supervision.

The management: Responsible for organizing and promoting ESG management, ensuring the integration of ESG concepts with company strategies.

Compliance Management Committee: Composed of the Chairman, general manager, and other executives. It is responsible for organizing and coordinating compliance management, fostering a compliance culture, and establishing business systems to integrate compliance management into business processes.

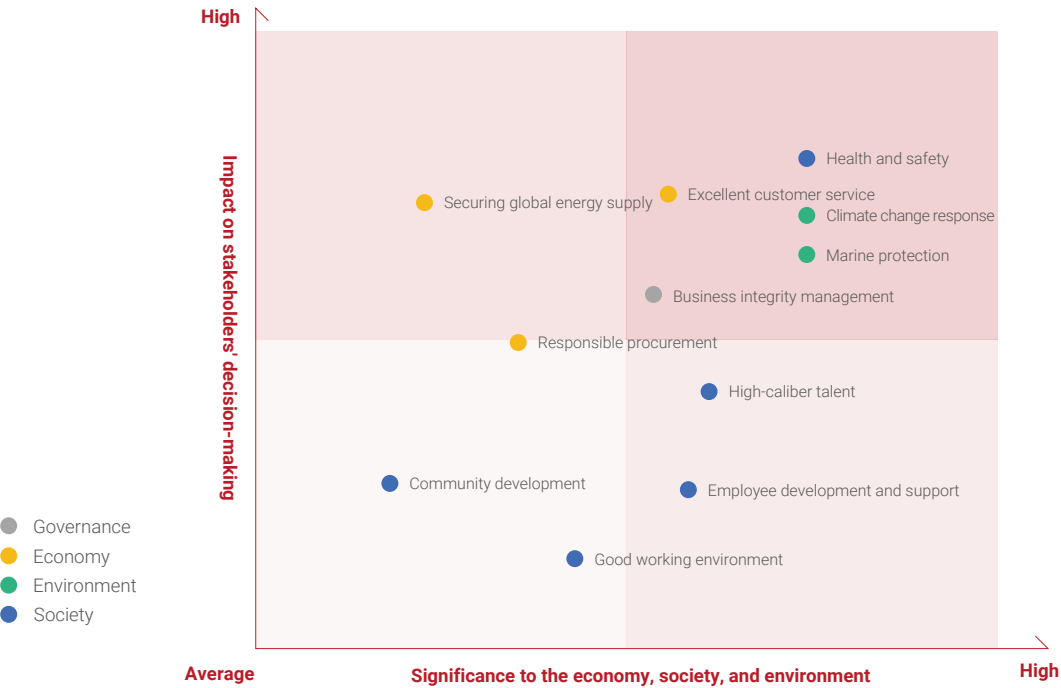
Safety Management Committee: Consists of the President, senior executives, and heads of relevant departments and subsidiaries. It is a critical component of the Company's work safety decision-making and safety and environmental management. It ensures the implementation of the resolutions of the Board on safety and environmental protection.

Cyber Security Committee: Composed of the President, relevant senior executives, and heads of departments. It is the highest decision-making body for the Company's network and information security management.

ESG Working Group: Implements and promotes the Company's specific ESG matters and regularly communicates and reports progress to the management.

Material Topics

In accordance with the Environmental, Social and Governance Reporting Guide released by the Stock Exchange of Hong Kong Limited on how to define material topics, in 2021, the Company conducted a materiality survey on internal and external stakeholders, which were then confirmed by the Board of Directors. In 2022, given both internal and external changes, we re-evaluated these topics and their ranking based on their significance to the economy, society, and environment, as well as their impact on the decision-making of stakeholders. This allowed us to better prioritize our ESG management and information disclosure efforts and address stakeholder concerns.



Material Topics		Explanation of Material Topics
Governance	Business integrity management	Managing integrity risks in the Company's operations
	Securing global energy supply	Offering shipping services for global energy trade
Economic	Excellent customer service	Providing customers with high-quality energy shipping services
	Responsible procurement	Identifying and managing supply chain ESG risks
Environmental	Climate change response	Reducing greenhouse gas emissions, developing and investing in vessels powered by alternative fuels, analyzing and acting on climate change risk and opportunities
	Marine protection	Conserving marine biodiversity, reducing the discharge of waste gas, waste water, and solid waste, and improving the whole life cycle management of ships
Social	Good working	Providing a work environment of diversity, equality, and inclusiveness
	High-caliber talent	Attracting professionals needed for corporate development
	Employee development and support	Providing employees with the necessary resources and support for career development and improving their quality of life
	Health and safety	Providing a healthy and safe workplace and resources, and improving safety and risk management
	Community development	Identifying demands for community development and engaging in community building

Stakeholder Communication

The Company fully interacts with customers, government and regulatory agencies, shareholders, employees, communities, suppliers, peers, industry organizations, media, and other stakeholders online and offline, in a bid to track the concerns and requirements of stakeholders and integrate them into the scope of corporate social responsibility management. We will also respond with practical actions.

Stakeholders	Main concerns	Responses of the Company
Government/ Regulators	<ul style="list-style-type: none">• Pay taxes according to law• Promote employment• Financial performance• Sustainable growth of corporate value	<ul style="list-style-type: none">• Abide by laws• Create job opportunities for local communities• Release periodic reports and CSR reports• Strengthen communication and reporting with government/regulatory authorities• Promote business development and sustainable and stable profit growth
Shareholders	<ul style="list-style-type: none">• Compliance operation• Business integrity management• Risk management and internal control• Sustainability capacity	<ul style="list-style-type: none">• Improve profitability• Strengthen communication with shareholders and capital market• Strengthen internal control and improve supervision• Release periodic reports and CSR reports
Employees	<ul style="list-style-type: none">• Safeguard basic rights and interests• Talent attraction and retention• Staff training and development• Occupational health and safety protection	<ul style="list-style-type: none">• Provide assistance to employees in need• Provide competitive compensation and benefits• Carry out diversified employee training• Hold the staff congress, employee dialogues and other communication meetings
Communities	<ul style="list-style-type: none">• Charity• Poverty alleviation / Rural vitalization	<ul style="list-style-type: none">• Invest in community building and poverty alleviation• Participate in marine rescue
Environment	<ul style="list-style-type: none">• Address climate change• Hazardous waste management• Marine biodiversity conservation• Responsible handling of decommissioned ships	<ul style="list-style-type: none">• Identify climate change risks and opportunities• Research and application of low-carbon fuel<ul style="list-style-type: none">• Greenhouse gas emission reduction• Reduce atmospheric and marine emissions
Clients	<ul style="list-style-type: none">• Guarantee global energy supply• Guarantee shipping safety• High quality customer service• Customer satisfaction	<ul style="list-style-type: none">• Optimize the layout of the global branches<ul style="list-style-type: none">• Provide customized services• Open channels for customer feedback• Shipping safety management
Suppliers	<ul style="list-style-type: none">• Responsible procurement• Supplier management• Supplier diversification	<ul style="list-style-type: none">• Provide equal opportunities• Adhere to optimal selection• Conduct responsible procurement
Peers / NGOs / industry organizations	<ul style="list-style-type: none">• Participate in industry cooperation• Promote fair competition• Drive the development of the industry	<ul style="list-style-type: none">• Carry out strategic cooperation• Participate in industry scientific research and development of industry standards• Attend industry forum meetings
Media	<ul style="list-style-type: none">• Media relations	<ul style="list-style-type: none">• Hold media communication meetings and press conferences• Release company news

CSR Spotlight

Facilitate Energy Transportation and Ensuring Energy Supply

In 2022, the global energy market faced significant challenges, including a decrease in fossil fuel investment, limited capacity expansion, and geopolitical tensions. These factors have led to an increase in complexity and uncertainty in the energy supply chain, which has impacted energy shipping. As a key player in energy shipping, COSCO SHIPPING Energy set up a shipping task force, making timely adjustments to our shipping capacity, and strengthening our cooperation with stakeholders to ensure the safe and efficient transportation of energy.

Multiple Measures to Guarantee Shipping Capacity

Leveraging our fleet size and shipping capacity, COSCO SHIPPING Energy adjusted shipping arrangements to meet market segments and customer needs. We organized appropriate shipping capacity for crude oil import, domestic crude oil transfer, and product oil export to provide safe, efficient, and convenient transportation services.

Coordinating ship repair and building

- Adjusting the schedule of ship maintenance and repair at the dock to unleash shipping capacity
- Strictly controlling the quality of constructed ships and ensuring on-time delivery

Guaranteeing shipping safety

- Classifying safety risks and investigating and controlling hidden hazards
- Standardizing the prevention of typhoon, wind, and piracy by ships, and raising the safety awareness of navigation in fog

Improving transportation efficiency

- Formulating safe operation plans for night berthing of large LNG ships to shorten delays
- Optimizing ship unloading to reduce the time spend at ports

Optimizing routes

- Offering shipping services in place of land routes to cope with the obstruction of land energy transportation
- Sailing across the Arctic 100cm thick ice layers to reduce navigation time

LNG Carrier WU DANG delivered to support energy supply

Case



- COSCO SHIPPING PetroChina International LNG Transportation Project No. 2 carrier WU DANG

During the peak winter season, the demand for oil and LNG increased significantly, which put pressure on the shipping capacity. To ensure a stable energy supply, COSCO SHIPPING Energy collaborated with Hudong-Zhonghua Shipbuilding (Group) Co., Ltd. to optimize operations and develop new management methods for the construction of WU DANG. These efforts reduced the construction time while maintaining high quality standards. On December 15th, 2022, WU DANG was delivered 47 days ahead of schedule. Her LNG shipping capacity, up to 174,000 cubic meters, could well serve global LNG trade, thus supporting peak gas consumption in winter.

Offering shipping services in place of land routes to ensure smooth energy transportation

Case

In 2022, the land transportation capacity was insufficient in some regions, affecting the production of oil refineries. Responding to urgent requests for crude oil transportation from our customers, COSCO SHIPPING Energy provided exclusive shipping services. We helped customers transfer raw materials in a timely manner by analyzing and coordinating fleet layout and communicating with multiple stakeholders. By the end of April when road transportation resumed, we had successfully transported approximately 207,000 tonnes of crude oil for our customers.

Night berthing improves emergency supply guarantee

Case

Night berthing of LNG carriers can effectively reduce delays at terminals, provide more flexibility to ship schedules, and improve the emergency supply guarantee of LNG. However, this practice also comes with higher requirements on LNG carrier berthing, unloading operations, safety, and emergency protection due to factors such as poor visibility. Drawing from previous experience of night berthing at LNG terminals, COSCO SHIPPING Energy tailored safe night berthing plans for LNG carriers, enabling smooth night berthing operations for MV CESI QINGDAO and MV CESI GLADSTONE, supporting the stable supply of natural gas in winter.



- CESI QINGDAO, a 174,000m³ large LNG carrier, accomplished the first night berthing in China

Synergy to Ensure Energy Supply

Efficient stakeholder communication and collaboration underpin safe, smooth, and harmonious shipping. We maintain close contact with our customers, ports and shipping units and finalize detailed shipping and port arrival arrangements to effectively facilitate transportation at all stages and provide professional and systematic services.



Enhancing cooperation with stakeholders

- Seeking advice from maritime regulatory authorities about port policies in winter iced areas and ensuring ship maintenance in winter
- Coordinating loading and unloading with cargo owners and ports in advance to reduce the impact of bad weather
- Communicating with ports to improve the efficiency of port logistics



Providing professional and quality services

- Establishing a customer-exclusive 24-hour hotline
- Customizing energy transportation solutions based on customer supply chain needs
- Setting up a "supply guarantee" survey section to solicit opinions and suggestions from customers on transportation services

Since March 28th, 2022, all of the Company's tankers and LNG carriers are actively involved in supply guarantee.

From March 28th to December 31st, 2022

we shipped a total of 129.32 million tonnes of oil products in 1,679 voyages

of which 45 million tonnes or 236 voyages were imported by China

We also transported 29.10 million cubic meters of natural gas import, making a total of 191 voyages.

Strive for Win-win Cooperation and Sustainable Development



In 2022, significant adjustments in the global economy, trade pattern, and energy supply and demand changes by the reconstruction of global industry chain, posed threats to the security and stability of energy transportation and supply chains. Committed to "becoming an outstanding leader in global energy transportation", COSCO SHIPPING Energy assumed the responsibility of shipping energy worldwide and improved the resilience and security of the energy industry and its supply chain, contributing to long-term sustainable development for both economy and society.

Key Topics

- Global energy transportation
- Excellent customer service
- Responsible procurement

Action Plans

- Leveraging the full potential of our fleet size and structure to provide a solid guarantee for global energy transportation and trade
- Establishing a transportation service quality management mechanism, tailoring customized service solutions, to effectively improve customer experience
- Integrating ESG factors into supply chain management, preventing ESG risks, and promoting sustainable supply chains



Global Energy Transportation Network

COSCO SHIPPING Energy consolidates its position as the leading global energy transportation fleet and continues to provide robust support for energy trade at domestic and international through its global business network, leading shipping capacity, and solid ship management.

Oil Shipping

COSCO SHIPPING Energy's tanker capacity is the largest in the world, covering all mainstream tanker types. We participate in spot market chartering, time chartering, signing of contracts of affreightment (COAs) with cargo owners, and other shipping activities. Through the coordination between domestic and foreign trade, large and small vessels, crude and product oil tankers, we give full play to the advantages of ship types and routes, and provide customers with whole-process logistic solutions such as import, domestic transfer, product oil transshipment and export, so as to ensure logistic efficiency for customers and achieve win-win cooperation.

Indicators	2022	2021	2020
Number of oil tankers	159	166	160
Gross tonnage (million dwt)	23.34	25.24	23.72
Transportation volume of tankers (million tonne)	174	167	160
Transportation turnover (billion tonne-mile)	536.79	507.74	486.06
Volume of crude oil shipment (million tonne)	137.33	130.94	127.88
Volume of product oil shipment (million tonne)	37.04	36.35	32.59
Average age of vessels (year)	11.11	10.47	9.55

LNG Shipping

The Company is a leader in China's LNG shipping business and an important participant in the world's LNG shipping market. Strengthening cooperation with partners in the industry, we serve the global LNG industrial chain together. We aim to establish standards and specifications for LNG project development, financing, technology, shipbuilding, supervision, and services, improve services capability in the whole LNG project supply chain, and promote transition from being an investor to a vital operator of LNG shipping. By the end of 2022, our shipping routes had covered gas sources including Australia, Europe, America, and major LNG demand countries, such as China, Japan, South Korea, India, France, and Spain. In 2022, together with our partners, we held the 4th Shanghai International LNG Shipping Forum to promote cooperation among LNG industrial chain, supply chain, and shipping chain, driving industry collaboration for LNG supply security and low-carbon energy transition.



the 4th Shanghai International LNG Shipping Forum

Working with CNOOC Gas & Power Group Co., Ltd. to promote the development of China's LNG industrial chain

Case

The high-quality development of the LNG industrial chain requires closer cooperation among all parties. In January 2022, COSCO Shipping Energy and Mitsui O.S.K. Lines signed a framework agreement with CNOOC Gas & Power Group Co., Ltd. for the construction of 6 LNG carriers with each one's capacity of 174,000 cubic meters to fulfill CNOOC's medium and long-term LNG shipping demand. Going forward, the three parties will establish even closer partnerships, work together to expand the LNG industrial chain, and build a shared ecosystem of LNG industrial chain based on mutual dependence and mutual benefits.

CHINA POOL Operation

Pool operation can balance ship supplies, improves shipping efficiency, and mitigates market risks for shipowners. In 2019, COSCO SHIPPING Energy initiated a VLCC pool (CHINA POOL) and put it into operation in 2021. CHINA POOL harnesses COSCO SHIPPING Energy's fully-fledged global marketing network, professional management teams, all-vessel-type logistics solutions, and high-standard freight quality management. It gathers and allocates international and domestic shipping vessels of similar types to customize logistics solutions and value chain extension services and to maximize the efficiency and commercial value of vessels in the pool. In 2022, the Company enhanced the whole-process operation of CHINA POOL, prioritized risk control, and adopted digital means to improve the management of CHINA POOL.

By the end of 2022

COSCO SHIPPING Energy had

62 jointly-invested LNG carriers

Among them

40 LNG carriers

with a capacity of

6.77 million cubic meters have been put into operation

22 LNG carriers

with a capacity of

3.73 million cubic meters were under construction

Provide Quality Services to Customers

We prioritize our customers and uphold the corporate values of "credibility, safety, efficiency, and transparency" in customer service. With our global marketing service system and dedicated account manager system, we provide robust support for energy trade through our worldwide network.

Service Quality Improvement

The Company improves service standards, formulates *Regulations on the Quality Management of Transportation Services*, and establishes a transportation service quality management body to monitor the overall quality of its transportation services. According to *Code of Conduct*, we will not knowingly disregard the confidentiality obligation to any third party, and we will safekeep all private information of customers, highly note to encrypt them when necessary and only refer to person authorized by customers. Confidential information is prohibited to be shared in any public forum or social media.

The Company combines internal service procedures with external customer demands to improve our services. When receiving transportation and loading requests from our customers, we comprehensively check ship availability, market situations, and overall arrangements before entering into a charter agreement. We also offer suggestions related to safety based on ship status, routes, and cargo types. During transportation, we provide timely responses to our customers' inquiries, monitor their satisfaction, and maintain effective communication throughout the process.

In addition, we have standardized our customer complaint handling procedures to improve our efficiency and response. When we receive complaints related to the quality or quantity of goods, we promptly initiate the response process and determine accountability. An investigation task force is then established to examine the freight quality, after which a report and a rectification plan will be compiled. After the rectification, we actively carry out experience analysis and provide feedback to customers on the rectification.

Customized services to ensure the smooth implementation of the Guangdong Petrochemical Project

Case

The Guangdong Integrated Refining and Petrochemical Project, a key project to promote the economic development of eastern Guangdong, will play an important role in upgrading the refining and petrochemical industries. To ensure the smooth and efficient berthing and unloading of the first oil tanker and the subsequent operation of the project, the Company conducted a thorough analysis of customer requirements and designed a customized transshipment plan based on its extensive shipping capacity and resources. Throughout the implementation of the project, we worked closely with our customer to develop detailed ship berthing plans and enhanced cooperation with terminals and pilot stations, resulting in the successful first berthing of MT YANG LIN WAN carrying 96,000 tonnes of crude oil.

Our customized logistics solutions indicate convenient, safe, and effective services, quality, setting a solid foundation for future business cooperation for multiple ship types and cargo grades.



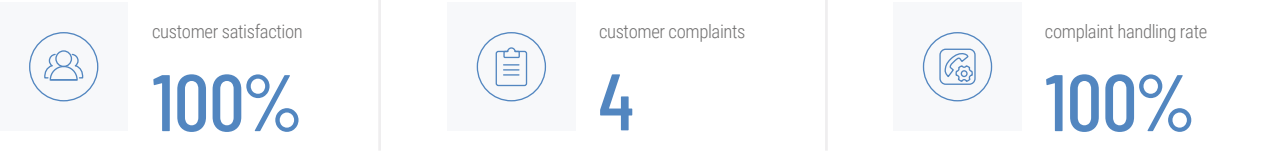
MT YANG LIN WAN carries the first batch of petroleum products for the Guangdong Integrated Refining and Petrochemical Project

Customer Satisfaction

Customer satisfaction determines the direction for optimizing our transportation services. COSCO SHIPPING Energy conducts annual customer satisfaction surveys to gather feedback and suggestions on our transportation services and improve service quality.

In 2022

71% coverage rate of customer satisfaction survey, in which 100% key customers were covered



Build Sustainable Supply Chains

As globalization accelerates, companies are increasingly collaborating with other supply chain players to streamline internal processes and improve productivity. However, increased dependence on the external environment and partners makes it more challenging to identify, monitor, and manage risks and opportunities in the supply chain. To address this, COSCO SHIPPING Energy has formulated documents such as the *Supplier Management Measures and the Procurement Management Measures*. These documents clarify requirements for supplier qualifications and codes of conduct regarding business ethics, safety and health, product quality, and environmental protection. We ensure that the safety and environmental performance of the products we purchase are in compliance with international conventions and relevant regulatory requirements. Meantime, we share our knowledge and experiences with our suppliers to grow together.

Supplier access and selection

- Conducting supplier due diligence, assessing supplier compliance risks, and banning suppliers from business cooperation if risks are identified
- Having suppliers sign the *Notice of Environmental, Occupational Health, and Safety Management* and *Supplier Anti-commercial Bribery Commitment* before entering supplier pool, and setting requirements on product eco-friendliness, prohibition of child labor, protection of employees' human rights, and employee remuneration
- Requiring suppliers to provide quality, safety, environmental, industry, and other third-party qualifications
- Conducting second reviews of suppliers to ensure that they are capable of fulfilling their responsibilities and are compatible with the Company's philosophy

Supplier supervision

- Having all suppliers included in the Company's database automatically checked by the compliance system each day to ensure their continuous compliance
- On-site review to external suppliers from which the Company conducts large procurement to identify potential supply chain risks

Supplier review and evaluation

Based on the *Supplier Annual Evaluation Form*, we evaluate the safety risks of suppliers related to personal safety, food, environmental safety, ethics, commercial bribery, etc., and rate them from A to D according to their scores

- A level: key suppliers who are given priority in procurement
- B level: suppliers suitable for conventional business cooperation
- C level: suppliers who receive key inspections of relevant links and guidance for rectifications
- D level: suppliers of this level and suppliers who possess invalid professional qualifications, cause safety and environmental accidents, and engage in commercial bribery will be eliminated and banned from cooperation

Indicators	2022	2021	2020
Number of suppliers	591	581	578
Number of suppliers outside the mainland	133	131	134
Number of mainland suppliers	458	450	444
Supplier vetting coverage (%)	100	100	100

Put Safety First with Practical Actions

Safety is a constant topic in production and operation, serving as the cornerstone upon which all other endeavors rest. It is vital to the development of the Company, ship safety and the well-being of both families and individuals. We always prioritize safety and focus on preventing loss. In order to ensure high-quality transportation of energy, we continually revamp our safety management procedures, raise awareness of safety among crew members, and elevate their ability of threat response.

Key Topics

- | | | |
|---------------------------------|------------------------|------------------------------|
| Strengthening safety management | Enhancing risk control | Improving emergency response |
| Cultivating safety awareness | | |

Action Plans

- Improving the safety management system, implementing safety responsibilities, and passing internal and external safety audits with high quality
- Identifying risks, compiling risk lists and taking tiered control measures
- Continuously improving the emergency management system, holding regular emergency training and drills, and developing critical risk emergency response capabilities
- Cultivating a corporate culture that places safety at the forefront, and enhancing employees' recognition of and dedication to the safety culture

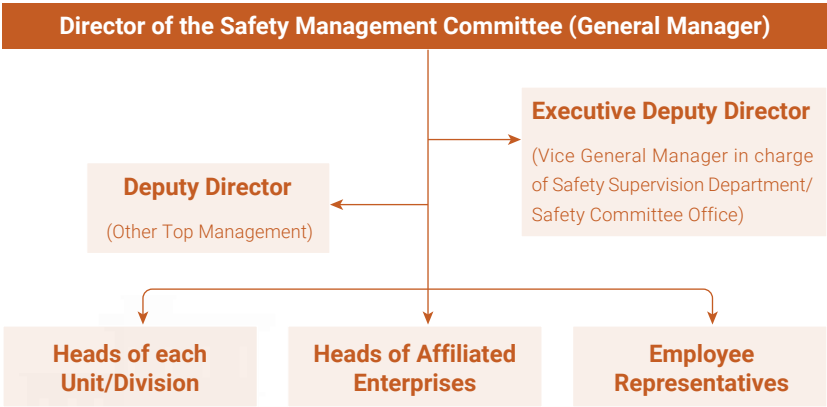


Safety Management System

We strictly comply with international mandatory conventions, recommended rules and guidelines, as well as domestic and foreign laws and regulations, including the *Work Safety Law of the People's Republic of China* and *Management Code of the People's Republic of China for the Safe Operation of Ships and for Pollution Prevention*. Safety management is an ongoing and comprehensive work of ship operation and transportation, with system documents providing the cornerstone and basis of ship safety management. In line with our safety policy "people-oriented, safety first, prevention-oriented, and comprehensive management", we consistently improve our safety management system by devising a range of system documents, including the *Safety Management Manual*, *Work Safety Standardization Manual*, and *Safety Management Document*, all of which are diligently executed.

Safety Management

Long-term Safety Goals of the Company



■ Safety management organizational structure



We have established Safety Management Committee ("Safety Committee") tasked with formulating policies, objectives and measures, and organizing regular safety inspections and assessments. On every ship, a ship safety committee has been established to implement safety responsibilities, with the captain serving as the primary person responsible for ship safety management. Monthly ship safety committee meeting is held to analyze, deliberate and summarize the implementation of safety measures.

We are dedicated to fully implementing a comprehensive and whole-process safety responsibility system among our staff. At the start of each year, the Broad of Directors carefully consider the *Safety Performance Report* that summarizes the previous year and plan for the current year. After that, the general manager distribute the Company's annual work safety tasks and objectives to each Unit/Division, and then signs the *Liability Statement for Work Safety, Energy Conservation, Emission Reduction and Environmental Protection* with their heads who, in turn, sign the *Post Work Safety Liability Statements* with each employee under their Unit/Division. We conduct regular and rigorous safety performance assessments coupled with appropriate rewards as outlined in the *COSCO SHIPPING Energy Headquarter Employee Remuneration Management Methods (Trial)*, covering all shore-based staff and crew members. Moreover, safety performance is integrated into the assessment of our executives' overall performance, with serious work safety accidents defined as red flag indicators. Our Safety Committee also conducts an annual evaluation and analysis of the implementation and management outcomes of our safety targets, and proposes recommendations for continuous improvement.

Safety System Certification

Certification of the Safety Management System

Our safety management system complies with international and domestic regulations and rules on occupational health and safety and in accordance with applicable rules, guidelines, and standards recommended by competent authorities, classification societies and industry organizations.

Certificate	Issued to	Business Scope	Issued by	Validity Period
Certificate of the occupational health and safety management system	COSCO SHIPPING Energy	Domestic transportation of oil cargo on water; international transportation of oil and chemicals cargo	CCSC	November 12 th , 2021 – November 11 th , 2024
Tier-one Certificate of Standardization of Work Safety for Transportation Companies	COSCO SHIPPING Energy	Waterway transport of hazardous goods	CCSC	December 2 nd , 2020 – December 1 st , 2023
Document of Compliance (DOC)	COSCO SHIPPING Energy	Domestic navigation of China-flagged oil tankers; international navigation of China-, Hong Kong-, and Singapore-flagged oil tankers and chemical tankers	China MSA	July 22 nd , 2019 – July 21 st , 2024
Document of Compliance (DOC)	COSCO SHIPPING Energy	International navigation of Panama-flagged oil tankers	CCS	August 9 th , 2019 – August 8 th , 2024

External Safety Audits

Annually, we receive external certification and audits of the safety management system conducted by third parties to confirm its effectiveness and compliance.

Safety Audit	Auditee	Departments Involved	Frequency	Audit Focus	Results
DOC audit for China-, Hong Kong, and Singapore-flagged ships	COSCO SHIPPING Energy	Relevant departments under the safety management system	Annual	The compliance of the Company's safety management system with the ISM/NSM code	Conformance to standards
DOC audit for Panama-flagged ships	COSCO SHIPPING Energy	Relevant departments under the safety management system	Annual	The compliance of the Company's safety management system with <i>International Management Code for the Safe Operation of Ships and International Management Code for Pollution</i>	Conformance to standards
Annual audit of occupational health and safety management system	COSCO SHIPPING Energy	All departments of the COSCO SHIPPING Energy headquarters	Annual	The compliance of the Company's occupational health and safety management system with GB/T 45001-2020/ISO 45002:2018 standards	Conformance to standards
Annual audit of work safety standardization	COSCO SHIPPING Energy	Relevant departments under the safety management system	Annual	Conducting annual audit according to the levels of Standardization of Work Safety for Transportation Companies	Pass in the audit for tier-one companies

Internal Audits of the Safety System

At the same time, we conduct internal audits of the safety system to see whether the execution of our safety management system documents conforms and adapts to relevant international conventions, laws, and regulations, in order to promote standardized and orderly system management, as well as to help us build a solid defense line against safety risks.

Safety Audit	Auditee	Frequency	Audit Focus	Results
The 2022 shore-based internal audit of the headquarters and ships	All departments of the headquarters and ships under DOC	Annual	Verifying the compliance and effectiveness of the Company's comprehensive management system documents according to the Company's comprehensive management system documents, ISM/NSM Codes, ISPS Code, applicable conventions, laws and regulations; whether the Company's comprehensive management system meets the requirements of said documents and certification code and standard; checking and verifying whether the shore-based management activities and ship management meet the requirements of applicable conventions, laws, and regulations.	The management system established by the Company in accordance with the ISM/NSM Codes, relevant international and domestic conventions, regulations, rules and standards is in line with the Company's management policies and objectives. The audit data show that the Company's management system operates effectively.

Prevent and Control Safety Risks

The waterborne energy transportation sector poses high safety hazards, including the possibility of collisions, groundings, fires, explosions, and other hazards that could lead to personal injury and environmental pollution. Nonetheless, we believe that all such incidents can be avoided.

We have formulated the *Hazard Identification and Evaluation Procedure* to identify major risks in various occupations and workplaces, creating a list of hazard sources. Risk levels have been categorized and prioritized control measures are implemented through analysis of the likelihood and severity of risk occurrence. We review and update our *Hierarchic Risk Control List* annually in accordance with laws and regulations, ship equipment and management requirements etc., which strengthens the risk prevention and control when risks arise during navigation operations, cargo operations, life-saving and fire-fighting, as well as key equipment management, maintenance, and ship stores. Additionally, we prioritize navigation safety and furnish a series of risk control measures, based on comprehensive consideration of macro policies, industry trends, and actual operation.



We believe that our people is the most important element of any safety work. With a "crew-centered" approach, we strive to create a secure working environment and protect the safety of our crew members on all fronts. We strictly implement the *Maritime Labor Convention* and have developed the *General Principles for Crew Management and Occupational Health* to guarantee the safety of crew members and prevent maritime accidents caused by human factors with clear action plans implemented based on stringent enforcement procedures. Each year, we enter into the *Crew Management Service Agreement* with COSCO SHIPPING Seafarer Management to protect the legitimate rights of crew members and ensure they are provided with the same level of health and safety standards as our regular employees. Relevant management measures and practices are implemented under strict annual internal and external audits conducted by classification societies, maritime bureaus, etc.

Occupational Health and Safety Goals

- 1

Providing safe practices and safe working environment for ship operations
- 2

Evaluating all identified risks to ships, personnel and the environment, and developing appropriate preventive measures
- 3

Continuously improving the safety management skills of ship and shore-based staff
- 4

Death due to occupational injury is zero
- 5

Personal injury accident of general grade and above is zero

No-blame Culture

We advocate a no-blame attitude, encourage employees to take the initiative to report dangerous situations and hidden dangers, rationally analyze the causes, and make the discovery of problems, reporting of problems and improvement of practices the norm of safety work, so that all employees form the idea of facing up to problems and facing up to difficulties.

Our Trade Union regularly assembles employee representatives to discuss occupational health and safety matters. In 2022, we developed the *Crew Occupational Health and Labor Protection Checklist*, and improved the occupational health and safety conditions for our crew members. We also conducted meticulous inspections of crew occupational health and labor protection, established procedures for reporting, investigating, analyzing, and handling accidents and hazardous situations, and made every effort to safeguard the physical and mental health and safety of our crew members.

Moreover, we continuously invest in work safety and occupational health protection for our crew members. In addition to regular health checks, we provide all crew members with necessary protective equipment, such as work suits, work shoes, safety helmets, goggles and ear muffs. We conduct pre-work meetings to assess potential risks, and provide additional education before any operations to ensure that every crew member is fully aware of the risks involved and the requisite control measures. During operations, we require our personnel to wear appropriate protective equipment, and post safety warning signs in potentially hazardous areas, and adopt necessary safety measures.

Indicators	2022	2021	2020
Work safety accidents incurring significant responsibilities	0	0	0
Work safety accidents incurring major responsibilities	0	0	0
Work safety accidents incurring moderate responsibilities	0	0	0
Small accidents	1	3	6
Work-related fatalities (including crew and onshore staff)	0	0	1
Work related fatality rate (%)	0	0	0
Lost days due to work injury	0	0	2
Lost time injury frequency rate of crew (suppliers' employees) (per million man-hours)	0	/	/
Lost time injury frequency rate of onshore employees (employees of the Company) (per million man-hours)	0	/	/
Occupational disease incidence of (%)	0	/	/
Rate of employees with certificates (%)	100	/	/

Calculation Description:

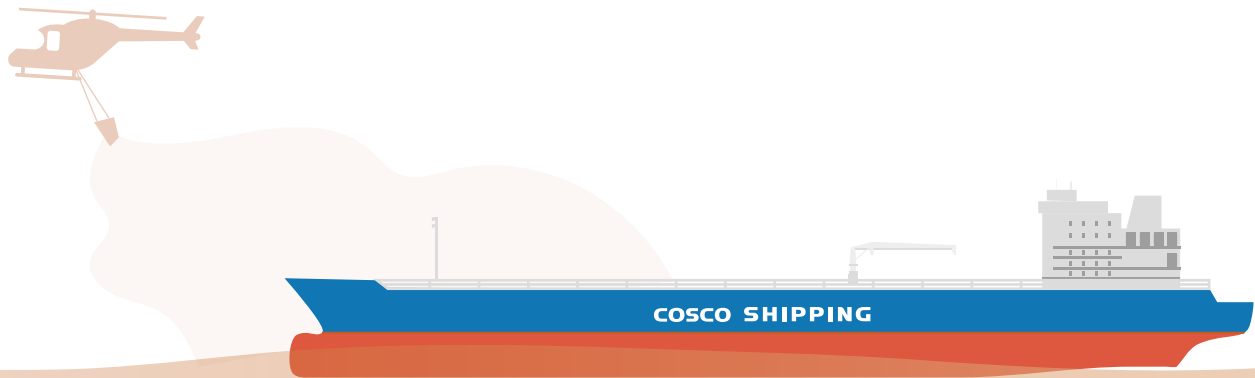
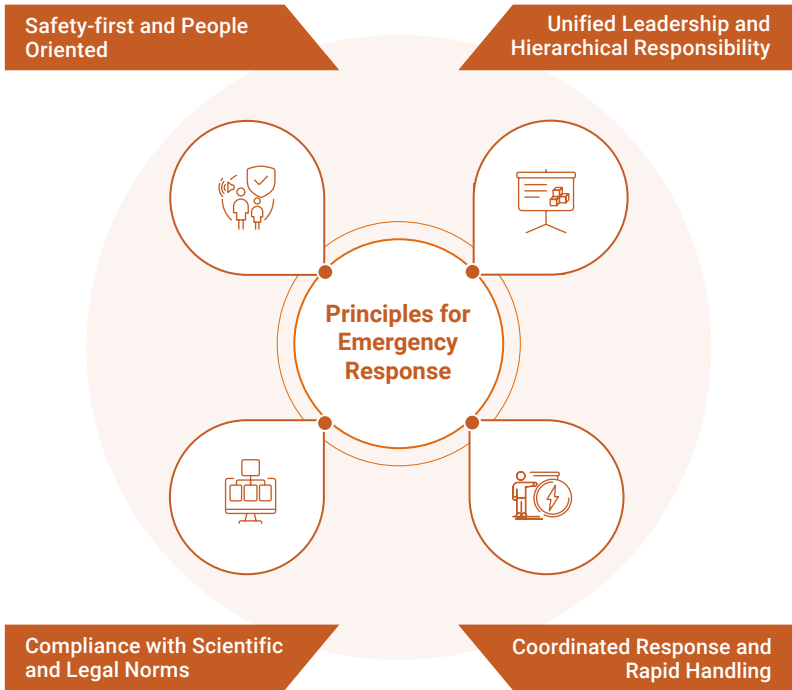
For reference to Appendix 3: Reporting Guidance on Social KPIs in HKEX's How to *Prepare an ESG Report*:
Rate of fatalities as a result of work-related injury (per hundred workers) = Number of fatalities as a result of work-related injury / Number of workers * 100%

For reference to the key definitions for indicator calculation in the *S&P Global Corporate Sustainability Assessment*:
*The lost time injury frequency rate (LTIFR) refers to any work-related injury that results in the company employee or third-party contractor employee not being able to return to work the next scheduled work day/shift. LTIFR = (Number of lost-time injury) / (Total hours worked in accounting period) * 1,000,000

Improve Emergency Response

The marine environment is frequently challenging and unpredictable, especially during navigation. In the event of an emergency, the swift and effective emergency response of onboard crew members can avert disastrous outcomes, limit casualties and minimize loss. Therefore the importance of advancing emergency management cannot be overstated.

We have implemented a comprehensive emergency management system, and established the *General Principles of Emergency Response and Risk Analysis*. In addition, an emergency management leading group headed by the general manager of the Company is established. *Special Emergency Response Plans* for addressing emergencies both at sea and on shore have also been in place to ensure a clear emergency response process.



We prioritize the development of the emergency response competencies of our crew members. In accordance with *Ship Emergency Response, Training and Drills*, we provide safety skills training to our personnel prior to their embarkation, to ensure they possess the necessary skills to respond effectively to critical risks. Emergency training and drills are indispensable, and it is imperative that every onboard employee is well acquainted with emergency procedures, their respective duties, as well as the equipment required for emergency situations. For certain parts of emergency response, such as the release of lifeboats and the use of fire hoses, we regularly carry out whole-process training or drills from the discovery of emergency to the completion of emergency response, followed by assessments carried out by person in charge.

Showcasing a high level of professionalism, efficiency and adeptness at handling emergency situations during the comprehensive emergency drill

Case


In June 2022, MT TIAN YING ZUO of COSCO SHIPPING Energy was invited to a comprehensive maritime emergency drill for ships carrying hazardous materials in the western region of Hainan. During the simulation, MT TIAN YING ZUO, with crude oil fully loaded, encountered steering gear failures and collided with a chemical carrier, leading to leakage and fire. The accident caused people falling into the water, damage to the ship, leakage of dangerous goods, poisonings and fires. The drill mainly focused on ship firefighting, search and rescue, and chemical risk management. All the crew members of MT TIAN YING ZUO swiftly responded with professional and efficient self-rescue, demonstrating their exceptional skills and expertise. This incident also showcased the emergency response competencies of the ship and the Company.



■ MT TIAN YING ZUO during the emergency drill


Build a Culture of Safety

We strive to foster a corporate culture that prioritizes safety as its core value, promoting awareness and understanding among our employees through effective communications and guidance. Our goal is to establish a robust safety culture that serves as a sustainable driving force for maritime safety measures, utilizing its transformative power to practically address safety challenges.




Safety Education

- Laws and regulations such as the *Work Safety Law* and *Maritime Traffic Safety Law*
- Company safety system documents
- Oil company inspection standards and other basic documents for ship work



Safety Skills

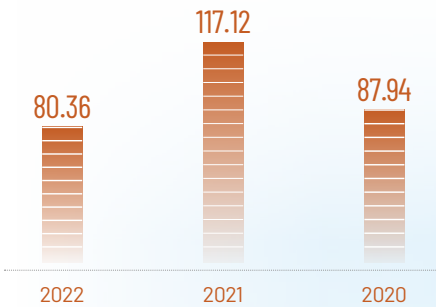
- Learn cases regarding navigation safety and cargo operation safety before starting to work
- Participate in collision avoidance maneuvering training and cargo operation training and assessment



Safety Campaigns

- Theme: Comply with the *Work Safety Law* as a responsible employee
- Safety Knowledge Competition, Hazards Snapshot Activity and other themed events

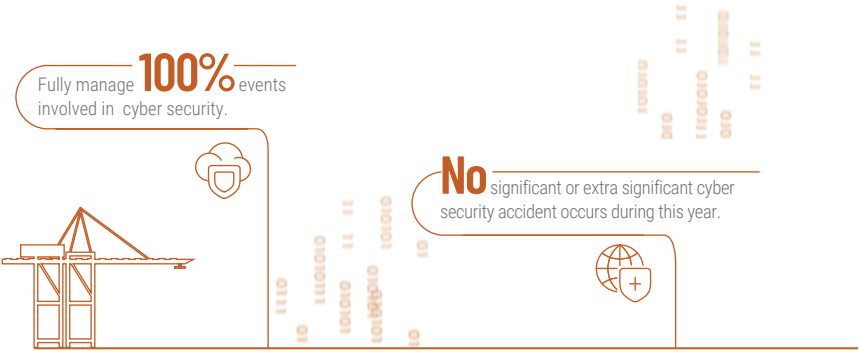
Investment in Work Safety RMB million



Safeguard Cyber Security

As maritime ships and ports become increasingly digitized, cyber security management within the maritime energy transportation industry cannot be overlooked. To this end, we have developed and enhanced our cyber security management system in line with the features of shore-based and shipboard operations.

Shore-based Cyber Security Objectives



We have established the Cyber Security Committee as our top decision-making body for shore-based and shipboard cyber security management. The general manager serves as the director of the Cyber Security Committee, taking the highest responsibility of the Company's shore-based cyber security, while the captain acts as the overall in charge person for the ship's cyber security. Furthermore, we have developed the *Shipboard Cyber Security Management Manual* and *Company Cyber Security Management Manual* to guide our operations. By adhering to the guiding principles of "assure compliance, combine management and technology, whole staff participate, and continually improve", we ensure the smooth operation of our network and information systems with an effective risk management mechanism and rational security control modes. In 2022, we worked to enhance the awareness of network security and provided all staff members with education and training opportunities, while reviewing and improving our emergency plan and optimizing our emergency response mechanism to effectively address various cyber security risks. No reportable level of cyber security incidents occurred throughout the year.

Safeguard a Harmonious Ecosystem



We clearly acknowledge the impact our operations may have on the marine environment. To support the decarbonization strategy of the shipping industry, we proactively research and develop low-carbon and zero-carbon ship fuels, while promoting technological and management innovation to reduce greenhouse gas emissions, so as to preserve marine biodiversity and live in harmony with nature.

Key Topics

Address climate
change

Protect marine
ecology

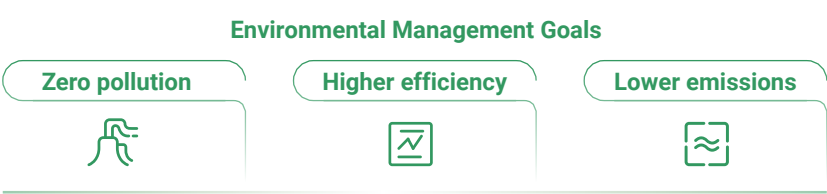
Action Plans

- Improving environmental organizational structure and the management procedures to ensure effective operation of the environmental management system
- Identifying climate risks and opportunities, advancing research on low-carbon ship fuels, and investing in LNG dual-fuel ships
- Reducing emissions to protect the marine biodiversity



Environmental Management System

We strictly comply with laws, regulations, and conventions of international, national and industry level, such as the *Marine Environment Protection Law of the People's Republic of China* and the *Regulation on the Prevention and Control of Vessel-induced Pollution to the Marine Environment* by the State Council of China, the *International Convention for the Prevention of Pollution from Ships (MARPOL)* by International Maritime Organization (IMO). We also abide by applicable rules, guidelines, and standards recommended by competent authorities, classification societies, as well as industry organizations recognized by the Company. At the same time, we established and continuously improve the environmental management system to minimize the environmental impact of our operations.



Environmental Risk Identification

We have established and implemented the *Identification and Evaluation of Environmental Factor Procedure* to continuously identify, evaluate environmental factors and develop corresponding control measures. The scope of identification and evaluation of environmental factors includes office activities, ship navigation, and environmental factors that may influence service providers and suppliers in their selection. The evaluation process takes into account various factors, such as the physical and chemical properties of environmental factors, the frequency of environmental risks, the scope, scale and severity of environmental impacts, the risk of violating laws and regulations, the technical difficulty and cost of resources of mitigating environmental impacts, and the concern of stakeholders. In response to changes in laws and regulations, or the introduction of new business, activities or services, we conduct timely identification and evaluation of environmental factors, and update corresponding control measures. Significant environmental factors will be improved by setting targets and special measures. For general environmental factors, risks are prevented by daily operation control and monitoring in order to ensure compliance with statutory requirements. We keep the records of environmental factor identification, evaluation, and update process in accordance with regulatory requirements.

Furthermore, we have developed and implemented series of energy and environmental protection management documents, which provides detailed regulations on all identified environmental factors of ships, control measures, personnel responsibilities, and reporting procedures, ensuring the effectiveness of environmental risk control.

Occupational Health and Safety, Environment and Energy Integrated Management System

We have implemented an integrated system for occupational health and safety, environmental, and energy management, and formulated *Occupational Health and Safety, Environment and Energy Management Manual*, which covers all departments and areas of the Company, ships under our management, and all processes involving international and domestic transportation of waterborne oil transportation and ship management. The manual also covers all processes and activities required by standards related to organizational context, leadership role, planning, support and operation, performance evaluation and improvement. The review of occupational health and safety, environmental, and energy management is conducted at least once a year or more frequently if necessary.

Our energy management includes:



The general manager of the Company is the first person responsible for anti-pollution work and ensuring the effectiveness of occupational health and safety, environmental protection, and energy management systems, ensuring that the integrated management system policy and related integrated management system objectives are established and are integrated into the Company's business processes. We provide ample support in terms of personnel, material resources, and financial resources to enable all departments and ships to fulfill their management responsibilities related to health, safety, environment and energy management.

Furthermore, we have developed the *Management Measures on Tenure System and Contractual Performance Appraisal for Members of the Management Board (Trial)*. These measures tie the company executive's performance incentives to the enhancement of environmental and safety performance. The one-vote veto performance assessment of senior executives will be implemented if the event of serious work safety accident, major oil spill pollution accident, serious oil spill pollution accident, serious environmental emergencies, and serious violations occur.



Certification and Audits on Environmental Management

Environment Management System Certification

Certificate	Issued to	Issued by	Validity Period
Environmental management system certificate	COSCO SHIPPING Energy (Domestic oil shipping; International oil/chemical shipping)	CCSC	November 12 th , 2021 – November 11 th , 2024
Company energy efficiency management certificate	COSCO SHIPPING Energy	CCS	July 19 th , 2022 – July 18 th , 2027
Certificate of management system for energy	COSCO SHIPPING Energy (Domestic oil shipping; International oil/chemical shipping)	CCSC	December 19 th , 2022 – December 18 th , 2025
Document of Compliance (DOC)	COSCO SHIPPING Energy (China-, Hong Kong-, and Singapore-flagged oil tankers; chemical tankers)	China MSA	July 22 nd , 2019 – July 21 st , 2024
Document of Compliance (DOC)	COSCO SHIPPING Energy (Panama-flagged oil tankers)	CCS	August 9 th , 2019 – August 8 th , 2024

Environment Management System Audits

Audit	Auditee	Frequency	Audit Focus	Results
Annual audit of environmental management system	All departments of the Headquarters of COSCO SHIPPING Energy (including Dalian Center and Guangzhou Center)	Annual	Checking the compliance of the Company's environment management system according to GB/T24001-2016/ISO14001:2015 and verifying the implementation of each requirement	Conformance to standards
Initial audit of energy efficiency management system	Departments relevant to energy efficiency management system	Annual	Checking in accordance with the <i>Rules for Certification of Ship Energy Efficiency Management, Resolution MEPC.282(70); 2016 guidelines for the development of a ship energy efficiency management plan (SEEMP) and MEPC.1-Circ.684 – Guidelines for Voluntary Use of the Ship Energy Efficiency Operational Indicator (EEOI)</i> .	Conformance to requirements
Initial audit of energy management system certification	Departments relevant to energy management system	Annual	Checking in accordance with GB/T 23331-2020/ISO 50001:2018 and RB/T 104-2013 <i>Energy management systems -- Certification requirements for transport industry</i>	Conformance to standards

Address Climate Change

Addressing climate change has become the global and industrial consensus. In 2018, the *Initial IMO Strategy on Reduction of GHG Emissions from Ships* was adopted. As a responsible shipping company, we have been actively collaborating with various entities to conduct research on zero-carbon fuel and investing in LNG dual-fuel ships to mitigate GHG emissions resulting from navigation, while simultaneously striving for the continued reduction of carbon emissions from existing ships. Additionally, the Company is focusing on the emerging development opportunities in responding to climate change, such as laying out LNG transportation and researching the transportation of liquid carbon dioxide.

Ever since we were listed as one of the Shanghai carbon emission quotation management entities in 2020, we have been resolutely reinforcing our compliance oversight of carbon quota trading. In 2022, we dutifully fulfilled the mandatory carbon emission allowance compliance for the year 2021 in accordance with the directives issued by the Shanghai Municipal Bureau of Ecology and Environment.

Climate Change: Risks and Opportunities

Based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we focus on the key factors affecting climate change in the shipping industry to identify climate change-related risks and opportunities and their potential financial impact in the short, medium and long run; and ultimately, to enhance our adaptability to uncertain climatic conditions.

Climate change-related risks				
Type	Description ♦	Links to be affected	Potential financial impact -/+	Period
Policies and legal risks	♦ China's decarbonization policies To achieve China's strategic goals of carbon peaking by 2030 and carbon neutrality by 2060, more stringent policies have been rolled out at the national and local levels.	Upstream Operations Downstream	-Increase in operating costs (e.g., the cost of carbon emissions increases, the penalty caused by failure to meet the compliance requirements increases the compliance cost)	Mid-term Long-term
	♦ Mandatory requirements for carbon emissions control in the shipping industry IMO has established carbon reduction targets in line with the <i>Initial IMO Strategy on Reduction of GHG Emissions from Ships</i> . Specifically, against the baseline year 2008, IMO aims to reduce the carbon intensity by 40% by 2030, endeavor to achieve a 70% reduction in carbon intensity and simultaneously cut total carbon emissions of shipping industry by 50% by 2050.	Upstream Operations Downstream	-Increase in operating costs (e.g., carbon emissions and carbon transaction costs increase) -Impairment on fixed assets (e.g., existing assets are written off or scrapped due to technology iteration)	Mid-term Long-term
	♦ Mandatory requirements for ship energy efficiency management IMO MARPOL Clear regulatory requirements are in place for the energy efficiency management of ships (e.g., Energy Efficiency Existing Ship Index [EEXI], and Carbon Intensity Indicator [CII], effective from January 1 st , 2023) as the draft amendments to IMO MARPOL Annex VI come into force	Upstream Operations	-Increase in capital expenditure (e.g., the financial expenditure for the transformation of high-energy ships increases) -Impairment on fixed assets (e.g., existing assets are written off or scrapped in advance due to technology iteration) -Increase in supply chain costs (e.g., the production and leasing costs of new ships that meet the requirements of energy efficiency management increases)	Short-term Mid-term
	♦ Mandatory requirements for control of air pollution from ships From January 1 st , 2020, the global fuel Sulphur limit has reduced to 0.5%. At the same time, according to the provisions of Annex VI to the MARPOL), the designated Emission Control Areas (ECAs) continue to apply the 0.1% sulfur limit standard. In addition, many countries, in accordance with their domestic laws, stipulate the application of specific sulfur limit standards in their anchorage, berth, coastal or inland waters	Upstream Operations	-Increase in operating costs (e.g., fines caused by non-compliance increase environmental compliance costs and fuel costs) -Increase in capital expenditure (e.g., choose to install scrubbers for ships to response to IMO sulfur restriction order)	Short-term Mid-term
	♦ Carbon pricing and trading In 2021, China's national carbon market officially started trading; with the promotion of the European Union Emission Trading System (EU-ETS), the total carbon emissions of the shipping industry in the EU region will be limited and gradually tightened.	Upstream Operations Downstream	-Increase in operating costs (e.g., the price of carbon emissions increases, and the cost of carbon emissions increases)	Short-term Mid-term
Technical risks	♦ R&D of new ships IMO and its EEDI require shipowners to invest in the R&D of new and more energy-efficient ships	Operations	-Increase in R&D costs (e.g., the increase of expenditure brought by the R&D and application of new technologies, new materials, and new processes) -Increase in operating costs (e.g., the cost of deploying new practices and processes)	Short-term Mid-term
	♦ Development of energy conservation and emission reduction technologies The shipping industry is calling for energy-saving devices and drag reduction technologies	Upstream Operations	-Increase in R&D and retrofit costs (cost of R&D and installation of energy-saving devices and other equipment) -Increase in operating costs (e.g., the cost of deploying new practices and processes)	Short-term Mid-term
Market risks	♦ Drop in demand for crude oil transportation In the low-emission scenario*, the rising demand for clean energy and lowering demand for crude oil are posing challenges to our crude oil transportation business	Upstream Downstream	-Decrease in revenue (e.g., the change of service demand leads to the decrease of business volume)	Mid-term Long-term
	♦ Depreciation of conventional oil tankers Fossil energy-related assets, such as traditional oil tankers, are at risk of depreciation	Operations	-Impairment on fixed assets (e.g., existing assets are written off or scrapped due to technology iteration)	Mid-term Long-term

Climate change-related risks				
Type	Description ♦	Links to be affected	Potential financial impact -/+	Period
Market risks	♦ Higher threshold for regional market access More stringent environmental requirements in Europe, Asia, and the U.S. form a higher threshold for market access	Operations	-Decrease in revenue (e.g., the business area is limited due to failure to meet the environmental protection requirements)	Short-term Mid-term
	♦ Change in consumer behavior Customers may prefer energy transport services with zero or fewer carbon emissions (e.g., carbon neutrality in oil transport)	Operations Downstream	-Increase in operating costs (e.g., purchase Chinese Certified Emission Reduction (CCER) to achieve carbon neutrality) -Decrease in revenue (e.g., the decline in oil demand will affect transportation demand)	Mid-term Long-term
	♦ Higher fuel oil costs Fuel oil prices increase as a result of higher crude oil carbon tax costs and the application of clean fuel technologies	Upstream Operations	-Increase in operating costs (e.g., rising fuel purchase cost) -Decrease in revenue (e.g., the market is unstable)	Mid-term
	♦ Wider application of clean energy More clean energy, which costs more than conventional fuels, will be used in the shipping industry	Upstream Operations	-Increase in operating costs (e.g., the rising cost of energy use) -Decrease in revenue (e.g., market instability caused by changes in the pricing of shipping services)	Mid-term Long-term
Reputational risks	♦ Carbon information Disclosure Regulators, investors, customers, and other stakeholders have put forward more demanding requirements for climate-related information disclosure and management in the shipping industry	Upstream Operations Downstream	-Decrease in revenue (e.g., if the information disclosure fails to meet the compliance requirements, the -Decrease in available capital (e.g., opaque information is difficult to attract investors)	Mid-term Long-term
	♦ Damage to industry/enterprise reputation It will be difficult to attract and retain stakeholders (e.g., customers, employees, business partners, investors) if our efforts to reduce emissions and improve energy efficiency are not effective enough and even detrimental to the climate	Upstream Operations Downstream	-Decrease in revenue (e.g., the decrease of service demand leads to the decrease of business volume) -Rising HR costs (e.g., higher employee attraction and retention costs) -Decrease in available capital (e.g., investors withdraw or reduce investment) -Increase in financing difficulty (enterprises or projects with higher green development capacity are easier to obtain financing)	Mid-term Long-term
Acute risks	♦ Extreme weather events and resultant damage The increasing frequency and severity of extreme weather events at sea, such as typhoons and tsunamis, are likely to cause damage to shipping infrastructure, vessels, and cargo, disrupting transportation activities	Upstream Operations Downstream	-Increase in maintenance costs (e.g., the cost of ship maintenance increases) -Increase in insurance costs (and "high-risk" areas are difficult to be insured)	Long-term
	♦ Extreme weather-induced transportation difficulties Extreme weather makes navigation difficult and hampers planned transport operations or timely delivery of goods to downstream companies, increasing the risk of breach of contract	Upstream Operations Downstream	-Decrease in revenue (e.g., transportation difficulties, supply chain disruption, and other business completion decreases, resulting in lower revenue) -Increase in default costs (e.g., if the contract cannot be completed on time, the cost of breach of contract will rise)	Mid-term Long-term
Chronic risks	♦ Effects of extreme weather on human health Excessively hot or cold weather, which could upset crew members, is detrimental to ship operations, human health, and work efficiency	Operations	-Increase in human resource costs (e.g., the increase of HR costs such as crew personal safety protection, mental health, and hygiene management) -Decrease in revenue (e.g., the reduction of employees' productivity leads to the reduction of income)	Mid-term Long-term
	♦ Rise of average temperatures and sea level and change in extreme wind speeds Rise of average temperatures and sea level, change in extreme wind speeds and other long-term climate changes are likely to cause transportation delays by affecting shipping times and route selection; they may also affect the siting of port facilities and their future construction	Upstream Operations	-Increase in operating costs (e.g., the cost may rise due to the selection of new infrastructure such as channel and port) -Increase in default costs (e.g., the cost of contract breach caused by the failure to complete the shipment on schedule increases)	Long-term

Climate change-related opportunities				
Type	Description ❖	Links to be affected	Potential financial impact -/+	Period
Resource efficiency	❖ Ship energy efficiency management Ship energy-saving retrofit, <i>Ship Energy Efficiency Management Plan</i> (SEEMP), and other measures will help improve ship energy efficiency, reduce resource consumption, and control emissions	Operations	➕Decrease in operating costs (such as reducing unit energy consumption and energy use cost through energy efficiency improvement)	Short-term Mid-term
	❖ Use of energy with lower emissions The use of clean fuels such as LNG as an alternative ship fuel enables us to provide low-carbon transport services	Upstream Operations Downstream	➕Decrease in operating costs (e.g., using alternative fuels with lower carbon emissions and pollution control costs) ➕Increase in revenue (use of low-carbon fuels to promote the increase of demand for services) ➕Increase in available capital (e.g., investors prefer low emission service providers)	Mid-term Long-term
Products and services	❖ High-tech ships, dual fuel VLCC, and other competitive products and services New and high-tech ships, as well as key technologies for dual-fuel VLCC, have been or are being developed to make our products more competitive in the market and appealing to both existing and potential customers	Upstream Operations Downstream	➕Increase in revenue (e.g., high-tech products and services drive revenue increase)	Mid-term Long-term
	❖ Investment in CCUS technologies We invest in carbon capture, use, and storage (CCUS) technologies and participate in future carbon market trading	Operations	➕Decrease in operating costs (e.g., reducing carbon emission quota purchase expenditure) ➕Management of corporate carbon assets (e.g., participating in carbon market transactions) ➕Increase in revenue ➕Increase in available capital	Mid-term Long-term
Market	❖ LNG transportation demand Under the pressure of global carbon emission reduction, the development of completely clean alternative energy technology is not yet mature. LNG has become an ideal transitional energy in the short term, and the transportation demand has increased. LNG freight rates continued to rise, shipping business volume and profit contribution continued to grow, and the Company's anti-cycle ability improved	Upstream Operations Downstream	➕Increase in revenue ➕Increase in investment income	Mid-term Long-term
	❖ Crude oil transportation demand In the high-emission scenario*, the demand for crude oil and the volume of crude oil transportation will keep rising. In the low-emission scenario*, the development of "carbon neutral" shipping services will bring us new opportunities	Upstream Operations Downstream	➕Increase in revenue (e.g., the volume of crude oil transportation business has increased, and there are service capabilities and competitive advantages in "carbon neutral" shipping services) <i>Note: "carbon neutral" shipping service refers to the shipping service that can reduce the carbon emissions of transportation and ship fuel combustion by using low-carbon or zero-carbon ship power fuel, purchasing CCER and other ways to achieve specific turnover or voyage "carbon neutral"</i>	Mid-term Long-term
	❖ Transportation demand of new goods The demand for low-carbon and zero-carbon energy continued to rise, and the transport volume of new goods continued to increase	Upstream Operations Downstream	➕Increase in revenue ➕Increase in investment income	Mid-term Long-term
	❖ Chartering Preference of Cargo Owners International maritime cargo owners have pledged to make their chartering activities more transparent and provide carbon intensity trajectories in accordance with the <i>Sea Cargo Charter</i> . Shipping services with lower carbon emissions will be the mainstream choice for cargo owners	Downstream	➕Increase in revenue (e.g., we have service capability and competitive advantage in low-carbon shipping, good reputation promotes the increase of service demand)	Mid-term Long-term

Climate change-related opportunities				
Type	Description ❖	Links to be affected	Potential financial impact -/+	Period
Adaptability	❖ Investment in clean energy projects and resource substitution/diversification In response to the trend of the energy transition, we focus on the LNG shipping business and investment in LNG vessels	Upstream Operations	➕Increase in revenue (e.g., the impact of crude oil price rise and cyclical changes is weakened, and the operating capacity under different scenarios is enhanced) ➕Maintenance and appreciation of asset values (e.g., the market valuation of the fleet is increased by planning the layout in advance)	Mid-term Long-term
	❖ New route selection The Arctic may become a new choice due to climate change and the melting of glaciers	Upstream Operations	➕Decrease in operating costs (e.g., the new route can shorten the shipping distance and improve the transportation capacity)	Mid-term Long-term
	❖ Supply chain resilience and adaptability In the coordinated transformation of the industrial chain, there will be more suppliers of energy-efficient ships and low-carbon fuels, with whom we will work together to reduce the carbon emissions of the supply chain and better address climate change	Upstream	➕Increase in revenue (e.g., the robustness of the supply chain effectively ensures business stability) ➕Decrease in operating costs (e.g., the anti-risk ability and reliability of the supply chain are improved to reduce the supply chain cost)	Mid-term Long-term

*Note: According to the recommendations of the TCFD, the Company refers to the scenario analysis published by the International Energy Agency (IEA), Intergovernmental Panel on Climate Change (IPCC) and other institutions, and focuses on the above key factors to qualitatively analyze the climate change-related risks and opportunities faced of COSCO SHPPING Energy. In line with the IPCC scenarios RCP2.6, RCP4.5, RCP6.0 and RCP8.5, as well as the TCFD framework recommendations, we define the "high-emission scenario" as a global average temperature increase above 4°C by 2050 and the "low-emission scenario" as an increase below 2°C.

Exploring Opportunities to Combat Climate Change through Liquid CO₂ Transport Research



Carbon capture, utilization, and storage (CCUS) is an effective approach for achieving carbon neutrality objectives. The complete CCUS process comprises four main components, namely, carbon dioxide sourcing, capture, transport, and utilization/storage. Carbon dioxide transportation plays a pivotal role in the CCUS process. At present, there are four major modes of CO₂ transportation: pipeline, ship, road tanker and rail tanker, each with distinct scenarios, advantages, and disadvantages. Large-scale global transportation of CO₂ via ships is still in the developmental and testing phase. Small ships are being employed to transport cryogenic liquefied CO₂, while larger ships have yet to be utilized. We predict that, following the global consensus on addressing climate change, demand for CO₂ transportation will grow. In 2022, we entered into a memorandum of understanding with PetroChina International (Singapore) Pte. Ltd. to conduct joint research on liquefied CO₂ transportation, with the aim of enhancing business development in the future.

Development of Green Ships

The utilization of cost-effective and safe low-carbon fuels is the key to energy saving and emission reduction in the shipping industry. We are closely tracking the technological advancements in this area while also conducting green ship research, including the calorific value research of ship power sources and assessing the feasibility of substituting conventional fuel oil.

Carbon Capture System

In 2022, COSCO SHIPPING Energy and Dalian Shipbuilding Industry Co. Ltd. jointly developed the R&D and design scheme for VLCC and Suezmax vessels applying the carbon capture system, which received the Approval in Principle (AIP) from the China Classification Society (CCS), Det Norske Veritas (DNV) and American Bureau of Shipping (ABS), respectively.

Methanol Fuel

In 2022, the VLCC ship design scheme powered by green methanol fuel, which was jointly developed by COSCO SHIPPING Energy and Dalian Shipbuilding Industry, a subsidiary of China State Shipbuilding Co. Ltd., received the AIP from the DNV and CCS, respectively.

The research on low-carbon fuel for ships is a persistent work with high research and development cost and difficult technical breakthrough. Natural gas has emerged as a temporary option. In 2022, MT YUAN RUI YANG was delivered and embarked on a trial voyage, marking the world's first LNG dual-fuel VLCC, as well as the first VLCC that meets the requirements of the third stage of EEDI. In contrast to conventional oil tankers, its endurance can reach 12,000 nautical miles, diminishing carbon emissions by approximately 20% and reducing sulfur emissions by over 95% when running on LNG as its main power source. It also enables free switching between LNG fuel and oil fuel. Moreover, we have released a publication the *world's first LNG dual-fuel VLCC MT YUAN RUI YANG* that systematically introduces management insights from ship design, supervision, administration, and crew training. This publication has helped enhance industry knowledge on the implementation of energy-efficient, eco-friendly and conservation technologies for VLCCs. In 2022, we invested RMB 152.18 million to promote the modification and upgrade of environmental protection technology in ships.



■ MT YUAN RUI YANG was delivered and embarked on a trial voyage

Energy Use and Carbon Emissions

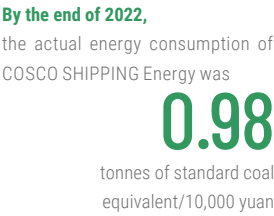
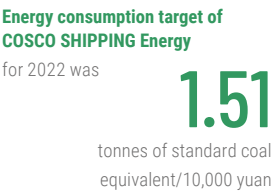
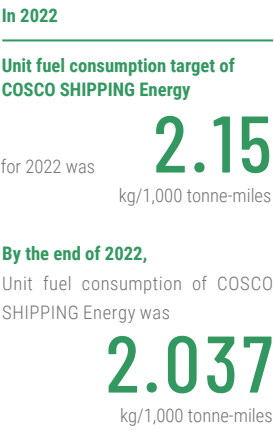
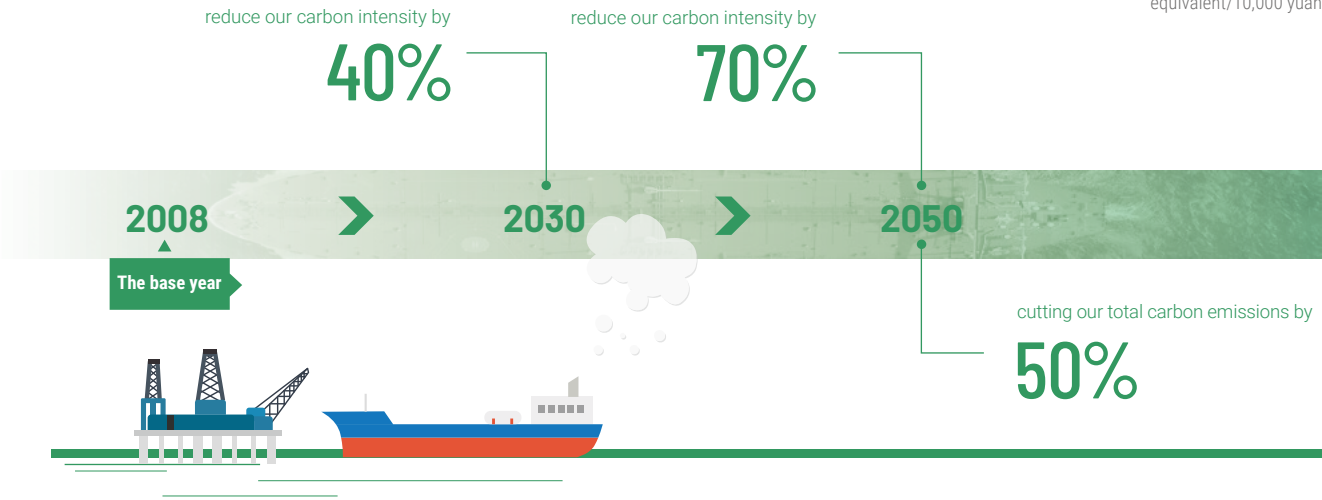
We are committed to the energy efficiency policy of "cherish energy, use rationally, and develop harmoniously". We meticulously comply with international conventions, laws, regulations, standards and other requirements related to ship energy management, we also established effective mechanisms to enhance the energy efficiency of our ship operations, to track and analyze our ships' energy consumption, aiming to improve ship energy efficiency.

We have developed the *Energy Saving and Emission Reduction Management Regulation of the Company* to guide our efforts in reducing unit fuel consumption. This regulation sets annual fuel consumption targets, and take the total annual fuel consumption target and the single ship annual fuel consumption quota target as the fleet and ship energy efficiency management targets and indicators. These targets serve as key performance indicators for managing the energy efficiency of our fleet and ships. Furthermore, we conduct regular energy reviews with a maximum interval of 12 months.

Our ship management department places great emphasis on managing ship carbon emissions management, developing *Ship Energy Efficiency Management Plans* for each ship. We determine the most appropriate energy-saving measures base on the unique characteristics of each ship, its navigation area, operation and other relevant requirements. Energy saving and emission reduction can be realized through various means, such as optimizing speed, monitoring fuel consumption, controlling fuel temperature, managing fuel use, optimizing ballast water and cargo oil operation, and strengthen the ship and its equipment maintenance. Moreover, the intelligent ship energy efficiency optimization and application system has been developed to facilitate navigation optimization, economic speed calculation, and energy consumption benchmarking analysis based on CII management for qualified ships. The system also regularly monitors and analyzes ship energy consumption equipment and data, and provides suggestions for improving energy efficiency.

We have established carbon reduction targets in line with the Initial IMO Strategy on Reduction of GHG Emissions from Ships. Meanwhile, the Company sets energy consumption targets for our self-operated oil tankers at the beginning of each year and reviews target achievement at year-end.

Carbon reduction targets in line with IMO



Data Scope: The environmental related data for 2022 in this report cover the consolidated report enterprises, including self-operated ships and chartered ships (leased in). However, the consumption of energy and resource by leased-out ships during the lease period is borne by the lessee and therefore not included in the statistics.

Energy and Resource Use				
Indicators	Unit	2022	2021	2020
	kWh in' 000s	12,656,018.87	11,735,179.63	11,797,778.68
Total energy consumption	Note			
	• The total energy consumption in 2022 comprises fuel oil, diesel oil, the electricity purchased by the office and gasoline for corporate vehicles. No natural gas was consumed			
	• The total energy consumption in 2021 includes fuel oil, diesel oil, power purchased by the office and LNG. The consumption of gasoline for corporate vehicles was not taken into account			
	• Energy consumption was calculated following the guidelines outlined in GB/T 2589-2020 <i>General rules for calculation of comprehensive energy consumption and Provincial Guidance on the Compilation of Greenhouse Gas Inventories (Trial)</i>			
Unit turnover of energy consumption	kWh in' 000s /1,000 tonne-miles	0.0236	0.0231	0.02427
	Note			
	• The unit turnover energy consumption calculation value presented in the 2020 and 2021 Social Responsibility report was provided with a precision of two decimal places. In this report, we have revised this value to four decimal places to enhance accuracy			
Gross fuel consumption	thousand tonne	1,088.0	1,009.0	1,014.5
Unit fuel consumption	kg/1,000 tonne-miles	2.03	1.99	2.09
Fuel oil	tonne	1,055,889.44	/	/
Diesel oil	tonne	32,064.13	/	/
Gasoline (corporate vehicles)	Litre	24,245.93	18,014.27	18,112.45
	Note			
	• Gasoline expenses incurred by corporate vehicles exclusively pertain to the Shanghai Headquarters in both 2020 and 2021, which are not the scope of consolidated statements			
Lubricating oil	tonne	9,896.00	9,262.41	7,118.86
Total power consumption (office)	kWh	1,907,064.80	1,823,445.25	/

Energy and Resource Use				
Indicators	Unit	2022	2021	2020
Total water consumption	m³	528,170.00	505,032.50	383,746.00
Ship water use	m³	520,391.00	/	/
Office water use	m³	7,779.00	/	/
Water intensity (ship)	m³/1,000 tonne-miles	0.000969	0.000995	0.000790
	Note			
	• The water intensity in 2020 and 2021 was calculated based on total water use, whereas in 2022, it was calculated based on the water used by ships			
	• Ship water use comes from supply vessels and fresh water generators for seawater desalination			

CO ₂ Emissions				
Indicators	Unit	2022	2021	2020
CO ₂ emissions	tonne	3,391,976.76	3,690,721.49	3,663,025.34
Scope I (ship)	tonne	3,390,837.32	3,688,903.52	3,661,407.98
Scope I (corporate vehicles)	tonne	51.84	/	/
Scope II (onshore office purchased power)	tonne	1,087.60	1,059.42	1,617.36
Unit turnover CO ₂ emissions	kg/1,000 tonne-miles	6.32	7.27	7.54

Note

- This report only takes into account the amount of CO₂ released and does not include any other greenhouse gases
- Ship Scope I was calculated with reference to the *2014 Guidelines Method of Calculation of the Attained Energy Efficiency Design Index (EEDI) for New Ships* issued by IMO
- Corporate Vehicle Scope I was calculated based on the gasoline consumption with reference to the *Provincial Guidance on the Compilation of Greenhouse Gas Inventories (Trial)*
- The electricity grid emissions factor for 2021 has been revised to 0.5810tCO₂/MWh according to the data released by the Ministry of Ecology and Environment of the People's Republic of China (MEE). Therefore, the emissions in Scope II do not match the values reported in the Corporate Social Responsibility Report 2021
- The electricity grid emissions factor for 2022 is 0.5703tCO₂/MWh and is sourced from data released by the MEE
- Unit turnover CO₂ emissions were calculated as emissions from Scope I ships



Protect Marine Ecology

Covering 71% of the earth's surface and containing 97% of its water, the oceans are essential for human survival and development. We recognize that protecting marine ecology is of great importance to sustainable development. As a leader in global energy transportation and practitioner of sustainable development, we spare no effort to protect the marine ecology and give more we plan to.

Protection of Marine Biodiversity

We recognize and value the critical role of marine biodiversity in our oceans and broader ecological systems. As a global energy transportation leader, we are committed to protect biodiversity both on land and in our shipping routes.

Particularly sensitive sea areas (PSSAs) route planning

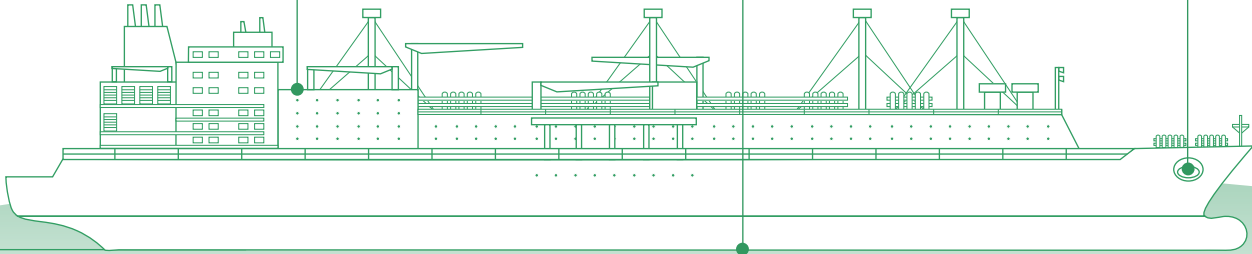
In drafting a route, we evaluate the potential impact on marine biodiversity, determining if the route to be designed will overlap with PSSAs, meaning the areas with special geographical conditions, ecosystems, biological and non-biological resources, and areas open to special marine requirements. And in the case of PSSAs voyage, we maintain the distance from the area specified by the coastal state to avoid disturbance to the marine environment.

Ballast water management/ biofouling prevention

Ships may potentially introduce invasive species in their ballast water, thereby endangering local ecosystems. Therefore, we comply with the *International Convention for the Control and Management of Ships' Ballast Water and Sediments* to regulate ballast water treatment operations and biofouling reduction operations, and install ballast water treatment systems on our ships to reduce biodiversity risks. In 2022, we upgraded ballast water treatment units on 14 ships, and by the end of the year, 78% of our fleet were equipped with ballast water treatment systems.

Noise reduction

High levels of noise can be detrimental to biological auditory systems and can even affect biological behavior. In order to mitigate the impact of shipping activities on marine organisms, we have allocated additional funds for reducing noise pollution. This involves enhancing ship design and propulsion techniques, as well as adopting low-noise equipment. Furthermore, we regulate ship operation when sailing, reduce speed and noise when sailing near PSSAs or marine protected areas, and raise the awareness of all employees about the impact of ship noise through publicity, education, training and other initiatives to minimize the noise of sailing.



Emission Reduction

We have implemented a waste management system in compliance with the MARPOL 73/78 to minimize marine emissions. This system involves strict management of waste gas, waste water, and solid waste to ensure they are disposed of in a safe and responsible manner.

Reduce emissions into the atmosphere

Reduce SOx emission

We use fuel oil with sulfur content not more than 0.5%, carry out feasibility study and demonstration of scrubbers installation project, and plan to retrofit desulfurization towers on 10 VLCCs in 2023. After that, 20.4% self-owned VLCC fleet of the Company is equipped with desulfurization tower

Reduce NOx emission

We ensure that equipment performance and operation are in accordance with convention requirements, while maintaining thorough and comprehensive records

Reduce VOC emission

We have the *VOC Management Plan* and use the cargo vapor collection system for VOC collection during the unloading process, as well as onshore treatment

Reduce particulate matter emissions from chimneys

We have strengthened the maintenance of equipment to ensure that fuel can be fully burned

A circular diagram with four icons connected by lines. The icons represent: 1. A document with a flame (SOx emission), 2. A document with a checkmark (NOx emission), 3. A person working at a desk (VOC emission), and 4. A factory chimney emitting smoke (particulate matter emissions).

Slop water management

There is oily water in ballast water and tank washing water. When discharged into the sea, such water can form an oil film and damage marine ecology. Therefore, we strictly comply with the provisions of MARPOL 73/78, regulating the onshore treatment and outboard discharge of oily water in our *Environmental Protection Management Procedures*. We also entrust qualified third-party suppliers to dispose of the harmful substances during onshore treatment.

Sewage and garbage management

We prioritize onshore treatment of sewage and garbage. Additionally, we purchase environmentally friendly, recyclable materials and minimize packaging, aiming to reduce waste at the source. In 2022, all of our ships' sewage and garbage were discharged in accordance with international conventions, rules and mandatory standards. We also completed the renovation of sewage treatment facilities on 24 vessels.

Decrease paint and chemical emissions

The paints and chemicals used for ship maintenance may have an impact on the marine ecosystem. We follow the *International Convention on the Control of Harmful Anti-fouling Systems on Ships* to monitor and control the related impact. We standardize the management procedures of ship painting operations, eliminate the use of antifouling primers and other paints containing organic tin, and reduce the emission of harmful substances generated by the use of paints and chemicals during the navigation and maintenance of ships.

Scrapped ship treatment

Hazardous substances are present in ship structures and equipment. We follow the *Industry Code of Practice on Ship Recycling* and *EU Ship Recycling Regulation* to ensure a full lifecycle approach for ships to collaborate with ship scrapping agencies to minimize environmental risks during the recycling process.

Environmental				
Indicators	Unit	2022	2021	2020
	tonne	81,960.37	87,780.92	88,261.50
NOx emissions	Note <ul style="list-style-type: none">Calculation of the NOx emission factor for 2022 comes from the <i>Method of Calculation of the Attained Energy Efficiency Design Index (EEDI) for New Ships for 2014</i> by IMONOx emission = fuel oil consumption * emission factor (0.07590) + diesel consumption * emission factor (0.05671)The NOx emission factor for 2020 and 2021 come from standards developed by COSCO SHIPPING Group, standing at 0.087			
Unit turnover emission of NOx	kg/1,000 tonne-miles	0.15	0.17	0.18
	tonne	10,091.87	9,585.27	9,637.75
SOx emissions	Note <ul style="list-style-type: none">Calculation of the SOx emission factor for 2022 comes from <i>Statistical Statement on Energy Conservation and Ecological Environmental Protection of Central Enterprises</i>Calculation formula: E_{SO_{2L}} = fuel consumption * 19 * Sulphur content * 10⁻³Sulfur content of fuel oil is 0.5% and diesel fuel is 0.1%			
Unit turnover emission of SOx	kg/1,000 tonne-miles	0.02	0.02	0.02
Oily water discharged	tonne	86,777.35	75,666.06	100,118.21
Oil content of oily water	tonne	10,197.87	10,290.50	15,284.65
	tonne	10,602.11	10,767.16	13,939.12
Hazardous waste emissions	Note <ul style="list-style-type: none">Including oily water and hazardous office consumables for ship use			
Unit turnover emission of Hazardous waste	g/1,000 tonne-miles	19.75	21.21	28.70
Non-hazardous waste emissions	tonne	927.10	607.40	413.00
Unit turnover emission of non-hazardous waste emissions	g/1,000 tonne-miles	1.73	1.20	0.85
Total amount of waste recycled/reused	tonne	150.58	/	/
	tonne	2,407.54	/	/
Total waste disposal	Note <ul style="list-style-type: none">Including unrecycled waste incineration and third-party treatment			

Extend Green Footprint

We have implemented a company-wide initiative to promote energy saving and carbon reduction. The *Instruction for Energy Conservation Management in Office Buildings* have clearly defined objectives and initiatives to ensure efficient resource utilization.

In June 2022, we held the June 5th Environment Day with the theme of "Building a Clean and Beautiful World", carried out diversified publicity activities on environmental protection and energy saving and carbon reduction, organized training on environmental protection management procedures, and the training about the *International Convention for the Prevention of Pollution from Ships, the Marine Environmental Protection Law, the Environmental Protection Law* and other environmental laws. We advocated low-carbon travel for employees, promote paperless office to raised employees' awareness of environmental protection, created a culture of environmental protection, which eventually guarded a beautiful homeland jointly.



「Grow Together with Employees」



Our employees are invaluable contributors to the advancement of our corporate goals, and their dedication and hard work are integral to our success. We strive to support their growth and development with respect and care.

Key Topics

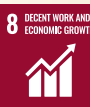
Ensure
decent work

Support employee
development

Health
and safety

Action Plans

- Providing a diversified, inclusive and equal workplace
- Improving the training system to provide necessary resources for employee career development
- Attracting talents who can contribute to the Company's development, providing competitive pay and benefits
- Caring for the physical and mental health of employees



Provide a Good Workplace

We are committed to creating a tolerant working environment for all employees, and ensuring that they are treated fairly regardless of age, gender, disability, ethnicity , nationality, and religion. We remain a "zero tolerance" attitude towards discrimination and harassment based on any of the aforementioned factors. Our *Code of Conduct* clearly defines the "people-oriented" value and regards employees as our greatest fortune. We respect the human rights of both shore-based staff and crew members, care for and assist them in solving their practical difficulties, provide them with competitive remuneration and safe working conditions, and support them in realizing their full potential.

In accordance with relevant the *Labor Law of the People's Republic of China* and the *Labor Contract Law of the People's Republic of China* and other relevant laws and regulations, COSCO SHIPPING Energy has formulated the *Headquarters Employee Management Measures* ("Management Measures") to standardize the employees management and support their career development. In the *Management Measures*, we ensure employee rights and interests by clarifying the following contents: the principles and processes for employee recruitment, transfer and borrowing; terms and procedures for the signing and terminating labor contracts; provisions of working hours, rest and vacation in accordance with relevant regulations of China and Shanghai city; matters related to staff assessment and training; rank and procedures related to employee promotion and career development; pay and benefits distributed according to work; safety and health rights and welfare.

In 2022



No incident of discrimination or harassment has occurred in COSCO SHIPPING Energy.

We forbid forced labor and child labor in any form and strictly obey the relevant provisions related to employment age, working hours, rest and vacation stipulated in *Labor Law of the People's Republic of China*. If there is any violation against the law such as extend working hours, we will bear the corresponding legal liability. In addition, the Company has formulated more detailed special policies and systems for the special content of employee management , including recruitment, salary, and training.

For employee recruitment, we have formulated the *Administrative Regulations on the Recruitment of Shore-based Staff* to comprehensively implement an open recruitment system aligned with the Company's development plan. To ensure fairness and justice, we manage to keep the information, processes, and results transparent during the processes of talent selections.

In terms of workforce diversity, we ensure that all activities concerning staff management are guided by the principles of "openness, equality, competition, and optimal selection" and "appointment based on integrity and ability". We have also explicitly stated in the *trial Regulations on the Management of Internal Trainers* that we recruit talents in various forms, assign and use excellent talents with a global view, and give full play to the unique advantages of native talents abroad.



Human resources policies and practices

Follow and create legitimate human resources policies and practices, including recruitment, selection, employment, evaluation, promotion, training, discipline, development, compensation, and termination; comply with applicable laws in all countries and regions where businesses are conducted.



Fair opportunity

Offer an inclusive working environment and fair opportunities to ensure the development and best use of the expertise of the staff.

Ensure that recruitment and promotion related corporate decisions are made based solely on work related factors such as relevant qualifications, abilities, and performance.



No harassment

The staff has the right to work at a respectful environment. COSCO SHIPPING Energy maintains a zero-tolerance policy towards any form of workplace harassment. Harassment refers to any unwelcomed, humiliating, intimidating or hostile activity, behavior or manner that causes discomfort or distress to an individual or a group.

All staff members are required to refrain from any activities or behaviors that may be deemed, or perceived as harassment, taking into account the specific cultural norms and expectations. Any individual found to have engaged in such behavior may face disciplinary action, including termination of employment, and potential legal consequences.



Privacy Protection

COSCO SHIPPING Energy upholds privacy rights and refrains from intervening in employees' personal lives outside of work, unless there are legitimate concerns related to the reputation or business of the Company. Private information is used only when necessarily required by the proper business or law.



Respect for Others' Asset

COSCO SHIPPING Energy respects others' physical assets and intellectual property. We do not expect any informed staff from both ships or shores to:

- Damage or embezzle others' physical assets;
- Infringe others' valid patent, trademark or copyright;
- Misappropriate classified information by infringing others' rights;
- Use or disclose others' confidential information without proper authorization.

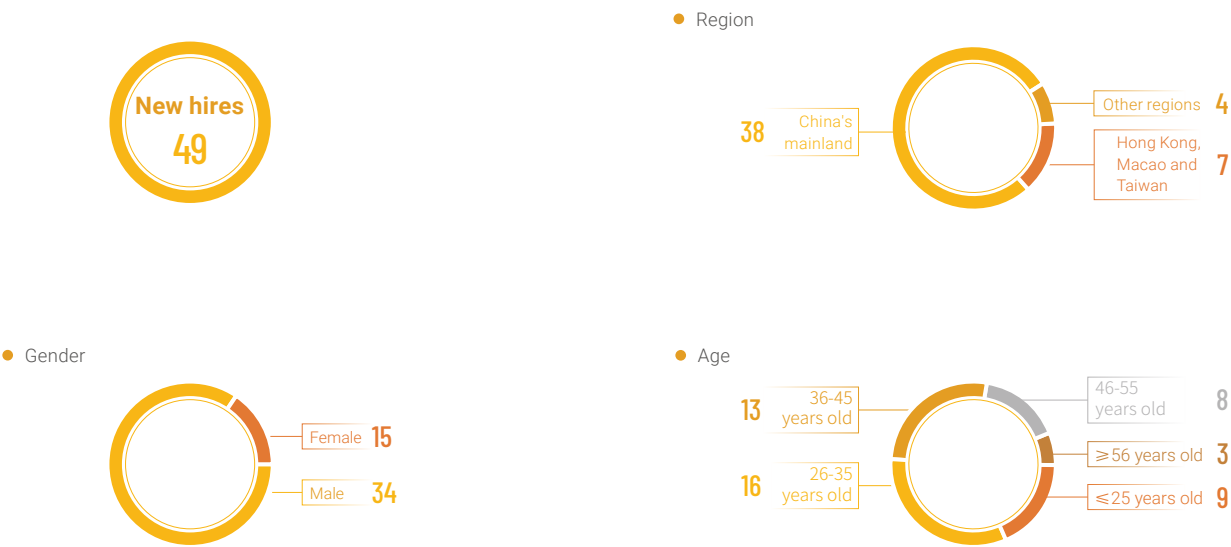
The same level of respect by others for COSCO SHIPPING Energy's physical assets and intellectual property is appreciated.

■ The clauses on employee rights and decent work in the *Code of Conduct*

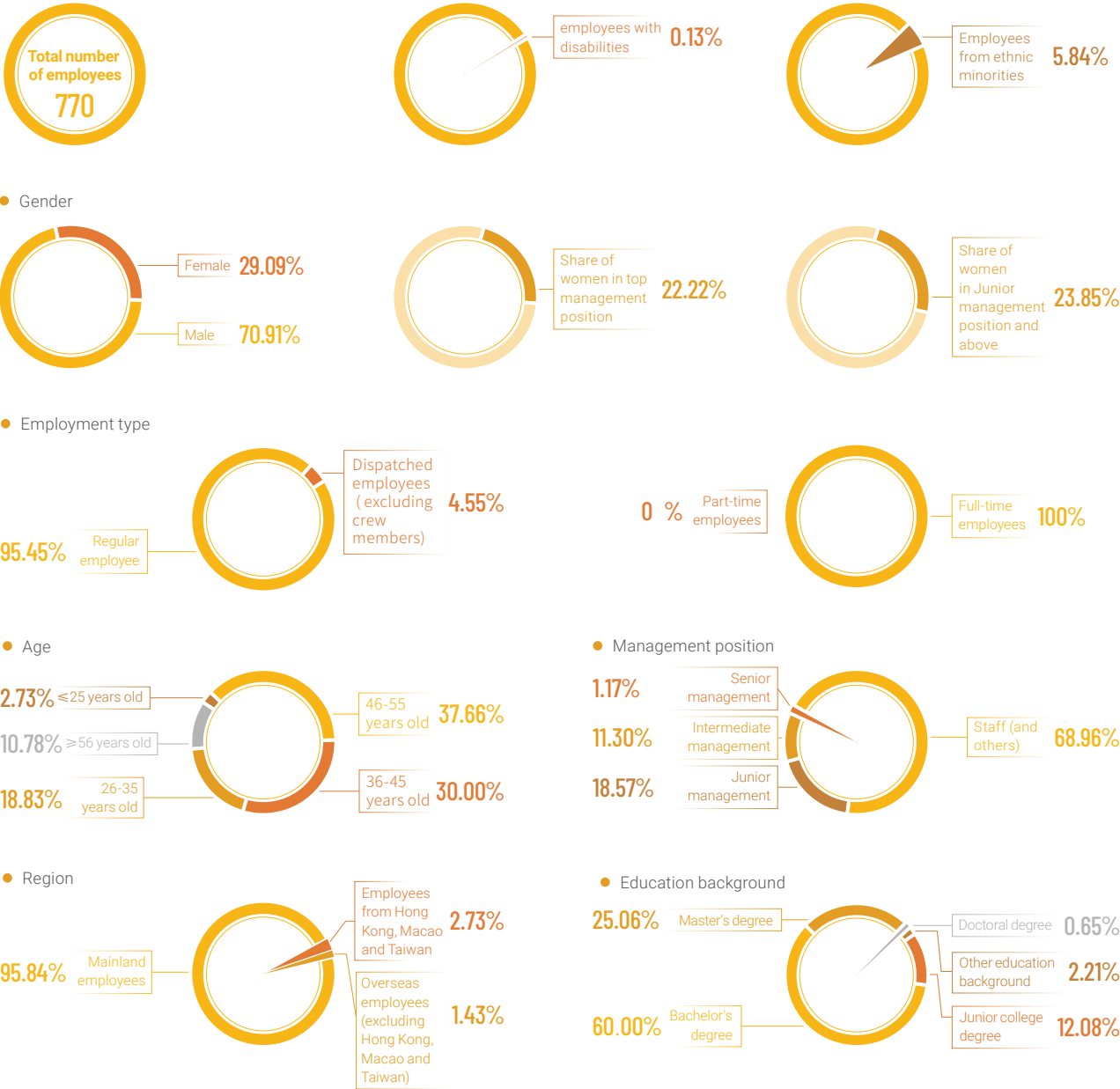
According to the *Trade Union Law of the People's Republic of China*, the Trade Union Committee of COSCO SHIPPING Energy ("the Trade Union") is responsible for the democratic management of the corporate, the protection of employee rights and interests, labor protection, and the protection of female employees, as well as the establishment and implementation of fair negotiation and the collective contract mechanism.

On behalf of all domestic employees, the Trade Union shall, in accordance with the *Provisions on Collective Contracts* and relevant laws and regulations, sign the *Collective Contract* with the Company every three years to conduct collective negotiations on remuneration, working hours, rest and vacation, occupational safety and health, occupational training, insurance benefits, etc. To safeguard the legitimate rights and special interests of female employees, the Trade Union shall, in accordance with the *Law of the People's Republic of China on the Protection of the Rights and Interests of Women*, the *Special Provisions on Labor Protection for Female Employees*, sign the *Collective Contract on Protection of Rights and Interests for Female Employees* with the Company every three years on behalf of all domestic female employees. The Contract includes negotiations on equal pay and opportunities for male and female employees and the protection of pregnant and lactating employees.

New hires in 2022



Total workforce breakdown



Calculation Description

The total number of employees is the number at the end of 2022.

Share of women in one type of management position=Number of women in the type of management position/Total number of employees in the type of management position * 100%

Attract and Cultivate Talents

Our business success relies on the contributions of our highly capable talents. In 2022, we formulated an active, open and effective talent introduction system and policy to be attractive and of international competitiveness. In January 2023, we issued *Regulation on the Introduction of High-level Talents(Trial)* to recruit domestic and foreign talents in the key areas to achieve our strategic objectives.



■ Key areas for high-level talents introduction

In addition, we provide various resources and relevant policy support for career development according to the needs of different types of employees, such as ship-shored compound talents, globalization talents, new-entry talents, high-level talents, and management talents.

Providing a platform for young employees to pursue excellence

Case

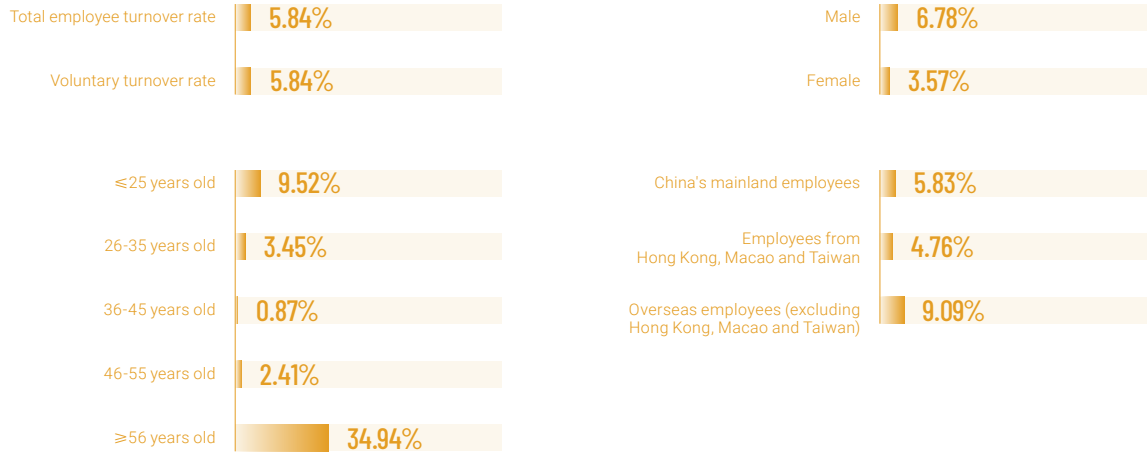
In 2021, COSCO SHIPPING Energy launched the training plan named Talents with Three Capabilities to provide young employees with an opportunity and platform for continuous improvement and rapid career development. The plan is comprised of three stages: getting familiar with the business operations of various departments, becoming skillful through practical experience in the frontline, and having a good command of overseas business skills. The training plan mainly focus on talent development paths and career planning, provides employees with learning and development roadmaps, helps to develop a group of young talents with pioneering and innovative spirit and comprehensive operation and management ability through experience accumulation, mentor guidance, self-learning, etc., to provide strong talent support for the Company's development.

By the end of 2022

15 new employees

have entered the second stage of the training plan

Employee turnover rate in 2022



Calculation Description

For reference to Appendix 3: Reporting Guidance on Social KPIs in HKEX's *How to Prepare an ESG Report*, S&P Global Corporate Sustainability Assessment.

Employee turnover refers to the proportion of employees who has terminated their contracts with the Company due to dismissal, resignation, retirement, and death during the reporting period.

Voluntary employee turnover refers to the proportion of employees who has terminated their contracts with the Company due to resignation, retirement, and death.

Calculation formula: Turnover rate of employees in certain category = the turnover of employees in the category/the number of employees at the end of reporting period in the category *100%.



Provide Systematic and Targeted Employee Training

We strive to create a tolerant and equal working environment, so that all employees have the opportunity and resources to develop their skills and bring out their strengths. The Company has formulated the *Administrative Measures for Staff Training* to ensure scientific, institutionalized, and standardized staff training.

In 2019, the Company established a "5+N" employee training and development program. For employees at different levels, positions, and professions, the program provides meticulously designed training plans and continuously improving training contents and methods. In 2022, the Company researched and drafted the *Implementation Plan for Improving the Construction of Education and Training System*, formulated the *2022 Education and Training Plan*, designed special education and training projects which cover employees at all levels such as executives of the Company, intermediate cadres, new employees and etc., and include training objectives and content in 6 areas such as ship-shore integrated and digitalized training. Additionally, the Company tracks and supervises the implementation of training plans quarterly to check completion rates and effectiveness.

○ 2022 COSCO SHIPPING Energy's 5+N targeted training system

Trainees		Training Objectives
5	Executives	Improving the ability and level of corporate governance
	Intermediate management (including general manager of Divisions and manager of Departments)	Improving international operation level, problem-solving, team building, planning and implementation and effective communication skills
	Young elite employees	Improving professionalism and duty fulfilment capability
	New hires	Improving job skills and establishing professional ethics
N	Talents with Three Capabilities (getting familiar with the business operations of various departments, becoming skillful through practical experience in the frontline, and having a good command of overseas business skills)	Acquainting with business processes of the Company business process, improving cross-department communication and collaboration, and accurately "empowering" outstanding young talents
	Internal trainers	Improving teaching skills and course development capabilities, and building a pool containing the information of internal trainers and course-related resources.
	Internationalized talents	Cultivating outstanding managerial talents with global view to facilitate the implementation of Company's international strategies
	Digital talents	Promoting the advancement of Company's data governance and cyber security, and making a contribution to achieving the goal of digital transformation
	Ship-shore integrated talents	Improving the safety management concept, and making a contribution to the construction of the core competitiveness of Company's safety brand.

In addition to systematic 5+N training projects, we classify and coordinate new training plans according to the business development needs of each department, based on the principles of practicality, pertinence, specialization, and necessities. The training curriculum encompasses seven categories including market running, ship safety system, business management (including financial management), compliance, etc.

In 2022, we formulated the *trial Regulations on the Management of Internal Trainers*, aiming at establishing and developing a team of highly qualified and professional internal trainers, in order to enable internal trainers to play an important role in extracting experience, empowering talents and cultural inheritance, enriching the Company's internal training resources, and providing more development opportunities for employees with professional skills.

Outstanding Leaders training program continuously empowers employees



Outstanding Leaders training program focuses on the training of executives, intermediate managers, young elite employees and other employees in vital position, strengthens the training of internal trainers, internationalized and other professional special personnel, so as to comprehensively improves the construction of talent teams.

In April 2022, the Company held an online training Program of Outstanding Leaders, which provided all employees with professional quality, professional positions, personnel management, digital applications, and other relevant courses. In September 2022, the Middle-level Cadre Training Camp was held, providing middle-level managers with trainings in organizational management, echelon building, concepts and methods of digital transformation, innovative thinking and awareness and other related aspects.We organized 3 reading workshops this year to enhance the self-management and learning abilities of young talents, so that the comprehensive quality of the Company's "Talents with Three Capabilities" and management trainees has been effectively improved.

In 2022, A total of 7,990 person-time participated in the 199 specialized trainings of Outstanding Leaders training program. Total training hours reached 2,800 hours, covering all staff.

In 2022

2.4731 million yuan

has been invested in training

with a per capita of

3,200 yuan

○ Employee training hours and rates in 2022

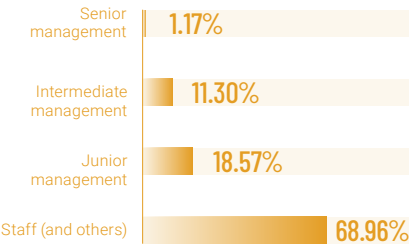
● Employee trainee by gender (%)



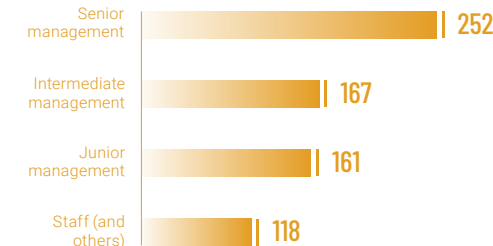
● Average training hours per employee by gender (hour)



● Employee trainee by position (%)



● Average training hours per employee by position (hour)



Calculation Description

For reference to Appendix 3: Reporting Guidance on Social KPIs in HKEX's *How to Prepare an ESG Report*;

Percentage of employees trained in certain type = Number of employees trained in the type/Total number of employees trained

Guard the Crew with Care

The shipping industry serves as the lifeline of global trade, and the crew is the "guardians" of the industry and significantly contribute to economic growth, social development and the progress of human civilization. We are fully aware of the distinctiveness of our crew's working environment and the safety and health risks they face. We are therefore committed to providing a safe, fair, tolerant, and supportive working environment for crew.

COSCO SHIPPING Energy has formulated and implemented the action guideline of *Caring for the Crew and Protecting the Safety of Ships* since 2019 and update it timely. The guideline includes specific provisions for crew change, physical and mental health, salary, career development, competence training, fitness and entertainment, family contact and communication, and care on important holidays. In addition, the Company has built communication channels for our crew members, which addressed and resolved promptly and efficiently to protect their legitimate rights and interests. In 2022, we received 8 complaints from crew members, and addressed and resolved them promptly and efficiently to protect their legitimate rights and interests.

In 2022, we launched and implemented five major projects under Crew Empowerment, namely crew occupational development, performance improvement, competency improvement, on-board management, and family care.

In terms of career development

- the Company aims to provide broader space for the development of excellent sailors

To improve performance

- the Company completes two major systems: ship performance assessment and crew performance assessment

To improve competency of the crew

- the Company establishes a comprehensive crew education and training mechanism that is need-integrated, planned uniformly and implemented collaboratively

For on-board management

- the Company has arranged

872 crew changes with

5,063 crew members disembarking for vacation

Crew Empowerment

In terms of family care

- the Company has provided assistance and visits to nearly

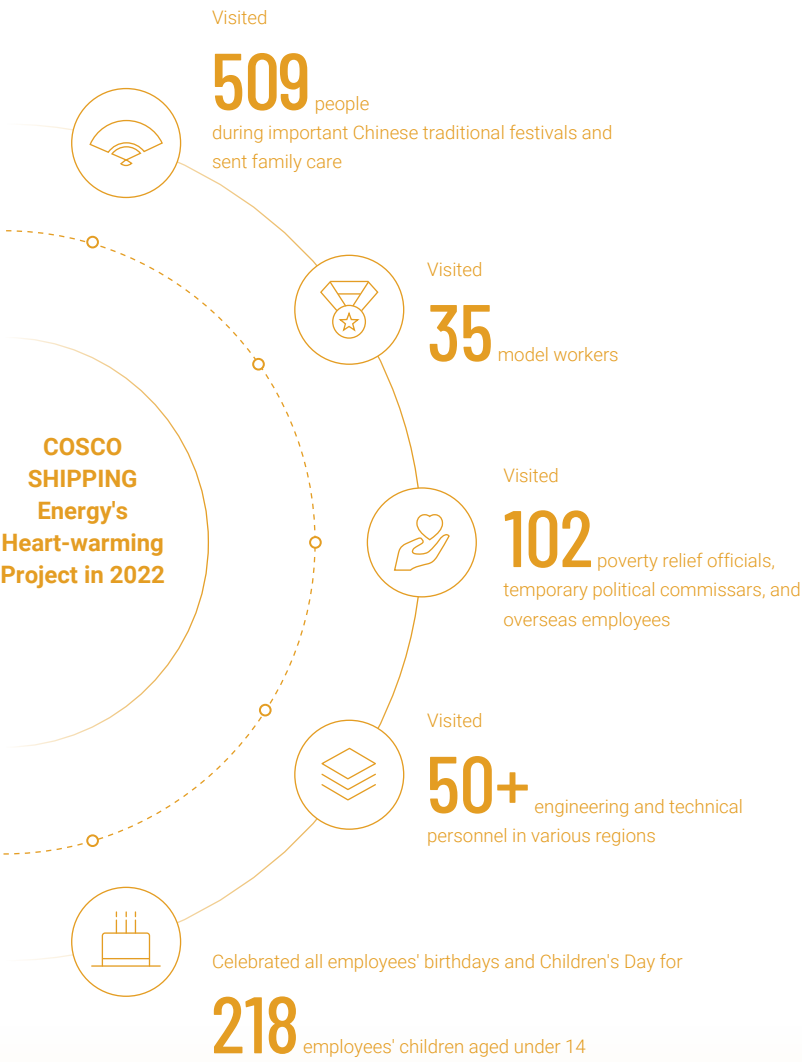
60 crew members with difficulties

- sent care packages to

491 crew members' families

Provide Employee Support

We value not only the ability and career development of our employees, but also their overall working experiences and quality of life. In 2022, we launched the Heart-warming Project, to support all types of employees in our company.



■ COSCO SHIPPING Energy's Heart-warming Project in 2022

We have equipped private, comfortable and hygienic lactation rooms in our office. Meanwhile, we organized young employees to participate in the Happy Dads and Moms parenting courses which are jointly conducted by the Shanghai Federation of Trade Unions and Shanghai Municipal Health Commission. The courses focus on the heated topics, key points, and doubts in pregnancy preparation, childbirth, parenting, and early education, introducing the latest concepts, knowledge, and skills in breastfeeding, infant care from different dimensions and perspectives.



Improve People's Lives through Shared Benefits

Major fields of donations
and assistance:

- Disaster-affected areas
- Targeted regions or areas
- Other targeted areas of rural revitalization
- People with disabilities
- Education cause
- Medical and healthcare cause
- Culture and sports cause
- Environmental protection cause
- Energy conservation cause
- Public facilities construction
- Other public welfare relief and charity cause
- Other donations and assistance

We encourage employees to participate in

voluntary service. In March 2022, 84 employees from the headquarter in Shanghai participated in voluntary community service to provide assistance and help those in need.

We believe that a company and the community have a shared development. As part of our mission, we view giving back to the community as our responsibility and commit to leveraging our resources to meet the needs of the community and contributing to people's well-being.

Key Topics

Contribute to rural
revitalization

Provide
emergency rescue

Engage
in charity

Action Plans

- Focusing on rural revitalization, promoting the development of rural industries, helping farmers increase their incomes
- Responding to maritime emergencies in a rapid, orderly and efficient manner, rescuing people in distress
- Taking the initiative to fulfill and actively perform social responsibilities, and making continuous contributions to public welfare and charity



The United Nations Sustainable Development Goals (SDGs) define the global vision and priorities for sustainable development, with a focus on achieving common goals by 2030 through global cooperation. We have responded positively by working dedicatedly to improve the living conditions of vulnerable populations and assist them to have better access to essential resources such as education, medical care, culture, and sports. In 2022, we have formulated the *Measures for External Donations*, which specifies the major fields where COSCO SHIPPING Energy can provide donations and assistance. In addition, we have clarified that the actual beneficiaries of external donations and assistance are social organizations and non-profit-making institutions with public interest, vulnerable groups or individuals in society, etc.

Contribute to Rural Development

We respond actively to the Goal 1: No Poverty and the Goal 2: No Hunger of the SDGs by helping eliminate poverty and create a life of dignity for members of our community. Under COSCO SHIPPING's integrated plan on corporate citizen and community development matters, COSCO SHIPPING Energy has been actively engaged in targeted poverty alleviation and rural vitalization.

In 2022, we continued our commitment to provide assistance to Yongde County of Yunnan Province and Anhua County of Hunan Province over the years, by learning more about poverty alleviation products, listening to poverty alleviation stories promoting local agricultural and special products, we have promoted local life and witnessed the significant change in the landscape of villages. In 2022, the Company purchased poverty alleviation products with a total of RMB 650,000 from Yongde and Anhua County, helping farmers in poor areas to increase their income. We donated a total of RMB 4 million to the COSCO Charity Foundation, of which RMB 3 million was used as unrestricted donation, which was coordinated by COSCO SHIPPING Group for targeted assistance and social welfare programs, another RMB 1 million was earmarked for the distinctive planting and breeding industry in Mangjiantian Village of Yongde County, Yunnan Province, benefiting over 200 local residents.

Go into the fields and open roads to prosperity

Case

Yongde County, a part of Lincang City, Yunnan Province, is an important pathway between Yunnan and Myanmar, with 22 ethnic groups such as Han, Yi, Wa and Blang ethnic group. Upon being lifted out of poverty in 2020, it was listed as one of the 30 provincial priority counties of rural revitalization in Yunnan Province in 2021.

In May 2021, Zhou Jingqing from COSCO SHIPPING Energy came to Mangjiantian Village, Yongde County, Yunnan Province to be the first secretary. In addition, the Company has set up a special team to provide strong talent guarantee and intellectual support for the frontline work of officials dispatched to villages.

Since 2022, in order to solve the problems of insufficient labor, lack of land and weak industry, Zhou Jingqing has worked with the Party branch committee in village and the villagers' committee to establish demonstration breeding project for green-shelled egg-laying hens. Thirteen peasants have participated in the first phase of the project, raising RMB5,000 laying hens, making the laying cycle worth of 1.4 million yuan, increasing income by nearly RMB400,000. As part of his efforts, Zhou contacted the local government to innovate the content and way of help, and donate RMB1 million in October 2022 to invest in the national agricultural products' geographical indication - Wuliang Mountain Silkies Chicken Breeding Project. The project plans to eco-breed 20,000 silkies, with marketable fatten stock standing at 60,000 silkies per year with an output value RMB3.3 million, helping 50 peasants increase annual income by RMB400,000. The booming ecological breeding industry made Mangjiantian Village one of the third batch of city-level "one village, one product" professional villages recognized by Lincang City.



In addition, Workshop for Employment Assistance aided by COSCO SHIPPING Energy was officially listed on November 9th, 2022. With the help of the workshop, the Company provides neighborhood jobs for peasants through entrusting them to raise livestock. Meanwhile, the Company offers multiple employment channels for those who have been lifted out of poverty, helping 27 people settled with an estimated total annual income of RMB380,000 and RMB14,000 per capita. Covering all households out of poverty and monitoring households in Mangjiantian Village, the workshop also drives other villages and towns to develop together, providing strong support for eliminating the risk of returning to poverty, consolidating the achievements of poverty alleviation, and promoting rural revitalization.

Maritime Rescue

Upholding the fine occupational ethics of crew and the noble spirit of humanitarianism of putting life first and dedicating ourselves, we cooperate with maritime search and rescue authorities in providing emergency rescue to secure safe seaborne traffic.

On September 4th, 2022, MT KUN LUN YOU 206 participated in a crew search and rescue operation for the capsized fishing boat MT QIONG CHANG YU 20318 in the waters near Chengshantou of Weihai, Shandong Province. Our team successfully rescued a sailor, and as the site search and rescue coordination ship, cooperated with BEI HAI JIU 111 and other commercial fishing boats participating in the action to successfully rescue many sailors in distress.

On November 28th 2022, MT LIAO YOU 123 conducted an emergency rescue near Changxing Island of Dalian and successfully rescued three distressed fishing boat sailors.

MT TENG CHI participates in the 2022 national maritime search and rescue drill



On October 27th, 2022, to enhance the maritime emergency rescue support in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), a large-scale national three-dimensional maritime search and rescue drill was held in the waters of the Pearl River Estuary. The drill was jointly held by the Ministry of Transport of China and the People's Government of Guangdong Province, organized by CHINA Maritime Rescue and Salvage Center and Guangdong Maritime Search and Rescue Center, co-organized by Hong Kong Maritime Rescue Co-ordination Center and the Maritime and Water Bureau of the Macao Special Administrative Region Government. MT TENG CHI of COSCO SHIPPING Energy was invited to participate in the drill.

During the drill, MT TENG CHI simulated a collision with a passenger ship while carrying 20,000 tonnes of crude oil. Through the drill, the Company was able to improve the cooperation between our ships, port and shipping entities in handling emergency situations, which is of great significance for the Company to continuously optimize and improve the ship emergency plan.



Outlook

Striving for Win-win Cooperation for Sustainable Development



Following the philosophy of "committing to shipping services", we will continue to be customer-centered and strive to take effective, targeted measures to meet the actual shipping needs of our clients and work together to build a safer, more stable, reliable, and transparent security system for the energy supply chain.

Putting Safety First with Practical Actions



We will uphold the guideline of "putting safety first and foremost", continue to improve the safety management system, strictly implement work safety responsibilities, and optimize the shore-based safety management and ship safety management. We will attach great importance to identifying, preventing, managing, and controlling risks and improving our emergency response. We will enhance safety awareness among all members through safety and skill training.

Safeguard a Harmonious Ecosystem



We will remain steadfast in our goal of achieving zero pollution, higher energy efficiency, and lower emissions, continue to improve environmental management system, actively respond to climate change, vigorously explore the application of LNG, ammonia, methane, and other new energy in ship power system, and improve energy efficiency with smart ships. We will strictly abide by the national and industry pollution prevention requirements, control sailing emissions, and protect biodiversity to contribute to our green planet.

Grow Together with Employees



We will adhere to the values of people-oriented, safeguarding their rights and interests, paying attention to their development, providing comprehensive support for their physical and mental health, listening to their demands, and addressing their difficulties to create a diversified, inclusive, equal, and happy workplace. We will continue to stress the mastership position of employees, provide opportunity for their self-realization, and have a shared future.

Improve People's Lives through Shared Benefits



We are committed to giving back to society and supporting impoverished regions. We will actively purchase poverty alleviation products to increase rural incomes in those areas and donate to community welfare programs and the rural breeding industry. We will uphold the spirit of putting life first and dedicating ourselves, and will continue to actively participate in maritime rescue operation to be a responsible maritime citizen.

HKEX ESG Indices Guidance

A.Environmental		
Category and level	General disclosure and key performance indicators	Corresponding sections
Aspect A1- Emissions	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Environmental management system Address climate change Protect marine ecology
	The types of emissions and respective emissions data	Address climate change Protect marine ecology
	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility).	Address climate change
	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility)	Protect marine ecology
	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g., per unit of production volume, per facility)	Protect marine ecology
	Description of emission target(s) set and steps taken to achieve them.	Address climate change Protect marine ecology
	Description of how hazardous and nonhazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Protect marine ecology
Aspect A2- Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials	Address climate change Extend green footprint

A.Environmental		
Category and level	General disclosure and key performance indicators	Corresponding sections
Aspect A2- Use of Resources	Direct and/or indirect energy consumption by type (e.g., electricity, gas or oil) in total (kWh in'000s) and intensity (e.g. per unit of production volume, per facility)	Address climate change
	Water consumption in total and intensity (e.g., per unit of production volume, per facility)	Address climate change
	Description of energy use efficiency target(s) set and steps taken to achieve them.	Address climate change
	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Address climate change
	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced	Not applicable
Aspect A3- The Environment and Natural Resources	General Disclosure Policies on minimizing the issuer's significant impact on the environment and natural resources	Safeguard a harmonious ecosystem
	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	Environmental management system Address climate change Protect marine ecology
Aspect A4- Climate Change	General Disclosure Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Address climate change
	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Address climate change

B.Social		
Category and level	General disclosure and key performance indicators	Corresponding sections
Aspect B1- Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Provide a good workplace
	Total workforce by gender, employment type, age group and geographical region	Provide a good workplace
	Employee turnover rate by gender, age group and geographical region	Provide a good workplace
Aspect B2- Health and Safety	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Prevent and control safety risks
	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Prevent and control safety risks
	Lost days due to work injury	Prevent and control safety risks
	Description of occupational health and safety measures adopted, how they are implemented and monitored	Prevent and control safety risks
Aspect B3- Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities	Provide systematic and targeted employee training
	The percentage of employees trained by gender and employee category (e.g., senior management, middle management)	Provide systematic and targeted employee training
	The average training hours completed per employee by gender and employee category	Provide systematic and targeted employee training
Aspect B4- Labor Standards	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	Provide a good workplace
	Description of measures to review employment practices to avoid child and forced labor.	Provide a good workplace
	Description of steps taken to eliminate such practices when discovered.	Provide a good workplace
Aspect B5- Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain	Build sustainable supply chains
	Number of suppliers by geographical region	Build sustainable supply chains

B.Social		
Category and level	General disclosure and key performance indicators	Corresponding sections
Aspect B5- Supply Chain Management	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	Build sustainable supply chains
	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Build sustainable supply chains
	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Build sustainable supply chains
Aspect B6- Product Responsibility	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Provide quality services to customers Safety management system
	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable
	Number of products and service-related complaints received and how they are dealt with	Provide quality services to customers
	Description of practices relating to observing and protecting intellectual property rights.	Internal control and compliance
	Description of quality assurance process and recall procedures.	Not applicable
	Description of consumer data protection and privacy policies, how they are implemented and monitored	Provide quality services to customers
Aspect B7- Anti-corruption	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Business integrity management
	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Business integrity management
	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored	Business integrity management
	Description of anti-corruption training provided to directors and staff.	Business integrity management
Aspect B8- Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests	Improve people's lives through shared benefits
	Focus areas of contribution (e.g., education, environmental concerns, labor needs, health, culture, sport)	Improve people's lives through shared benefits
	Resources contributed (e.g., money or time) to the focus area	Improve people's lives through shared benefits

Third Party Assurance



Assurance Statement of Sustainability Report

TUV NORD (Hangzhou) Co., Ltd ('TUV NORD' for short) has been commissioned by the management of COSCO SHIPPING Energy Transportation Co., Ltd ('COSCO SHIPPING Energy' for short) to carry out an independent assurance for 2022 Sustainability report ('report' for short) .

COSCO SHIPPING Energy is responsible for the collection, analysis, summary and disclosure of information within the Report. TUV NORD conducts this work (report verification) within the terms of reference agreed in the scope of engagement with COSCO SHIPPING Energy. COSCO SHIPPING Energy is the intended user of this statement.

This statement is based on the 2022 Sustainability Report which prepared by COSCO SHIPPING ENERGY who is responsible for the completeness and authenticity of the information and data disclosed in the report.

Assurance Scope

- Key performance, information and management system in environmental, social and governance aspects disclosed in the report for 2022
- Evaluate the management process of collection, analysis and inspection of data and information in the report.
- Verification address: No.670 Dongdaming Road, Hongkou District, Shanghai, China, the Headquarters of COSCO SHIPPING Energy, without visiting the location of its subsidiaries and project sites;
- The economic data was audited by other third party, so no repeated verification has been conducted.

On site verification was conducted from 13th Mar. 2023 to 14th Mar. 2023.

Assurance Methodology

Assurance process includes following activities:

- Review the document information provided by COSCO SHIPPING Energy;
- Interview the person who collected the report information;
- Review the related websites and media reports, verify the data and information through sampling method;
- Evaluate the report with reference to the requirements of the Hong Kong Stock Exchange's Environmental, Social and Governance Guidelines for sustainable development reporting;
- Refer to AA1000AS (V3) Assurance methodology;
- Assurance activity is conducted based on TUV NORD CSR report assurance management procedure.

Assurance Conclusion

2022 Sustainability Report which prepared by COSCO SHIPPING Energy objectively reflects the company's development and performance in the environmental, social and governance fields in 2022. Through sampling verification, the data in the report are reliable and objective, and TUV NORD has not found any systematic or substantive errors.

- **Materiality**: COSCO SHIPPING Energy has objectively disclosed its important performance in the environmental, social, and governance fields in 2022, focusing on 11 topics such as "Health and Safety", "Protecting Marine Ecology", and " Business Integrity Management ", by 5 chapters of disclosure such as " Strive for Win-win Cooperation and Sustainable Development ", promptly responding to the expectations of investors and other stakeholders;
- **Quantitation**: The report discloses performance indicators in social, environmental, and governance fields such as



employee structure, revenue, and carbon dioxide emissions, which have a certain degree of quantitation;

- **Balance**: The report discloses employee turnover rate and number of crew complaints, which has a certain degree of balance;
- **Consistency**: The Board Office/Securities Affairs Department of COSCO SHIPPING Energy is responsible for collecting, recording, arranging and analyzing the information and processes used in the disclosure of the report. The sampled data in the verification process is traceable, which ensures the quality and substance of the information to a certain extent.

Suggestion for improvement

Through assurance and evaluation, we have the following suggestions for the improvement of COSCO SHIPPING Energy's sustainable development practices and management:

- It is suggested to conduct an annual stakeholder survey to improve stakeholder engagement;
- The company has conducted a detailed identification of climate change risks and opportunities, and it is recommended to build and determine specific responsible departments and implementation measures for these risks and opportunities, in order to gradually reduce the financial impact of climate change risks;
- It is recommended to disclose the supply chain audit results to reflect the company's performance in supply chain management.

Special statement

This statement excludes:

- Activities outside information disclosure;
- The position, idea, faith, objective, future developing direction, and promise which stated by COSCO SHIPPING Energy;

Statement of Independence and Competence

TUV NORD Group is the world's leader certification authority in inspection, testing and verification, operating in more than 70 countries throughout the world and providing services which includes management systems and product certification; quality, environmental, social and ethical auditing and training; environmental; social responsibility and sustainability report assurance.

As one of the global branches of TUV NORD Group, TUV NORD (Hangzhou) Co., Ltd affirms its' independence from COSCO SHIPPING Energy and confirms that there are no conflicts of interest with the organization or any of its subsidiaries and stakeholders when conducting the assurance of the Report. TUV NORD was not involved in any manner with COSCO SHIPPING Energy, when the latter was preparing the Report.

TUV NORD (Hangzhou) Co., Ltd

Audit team leader: Ms. Huang Li
Date :18.04.2023

Authorized person: Mr. Song Haining
Date: 18.04.2023

Note: In case of any conflict between the Chinese and English versions of the statement, the Chinese version shall prevail.

Reader Feedback

Dear Readers,

Thanks for reading the Sustainability Report 2022 of COSCO SHIPPING Energy. Flaws and omissions are hard to avoid in the compilation of this report. We are looking forward to your valuable suggestions. Please give feedback to us for our further improvement.

Multiple Choice Questions (Please tick in the corresponding box)

- 1.Your general evaluation on this report:

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 2.How about the response and disclosure of the stakeholders' concerns in this report?

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 3.What do you think of our work on economic responsibility?

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 4.What do you think of our work on client service?

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 5.What do you think of our work on environmental responsibility?

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 6.What do you think of our work in safety management?

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 7.What do you think of our work on employee responsibilities?

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 8.What do you think of our work on community responsibilities?

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 9.Are the information, index and data disclosed in this report clear, accurate and complete?

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor
- 10.Are the content and format design of this report readable?

☐ Yes ☐ No

Open Questions

What do you think is the most satisfying aspect in this report?

What's your advice for our future social responsibility reports?

Feedback in the following ways:

Address: Office of Board, 7/F, No. 670, Dongdaming Road, Shanghai
Email: ir.energy@coscoshipping.com
Tel.: 86-21-65967678