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# Integrated Capacity Infinite Capability

COSCO SHIPPING Energy Transportation Co.,Ltd.

## Corporate Social Responsibility Report

# 2021



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 1 January to 31 December, 2021, 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 corporate social responsibility (CSR) report is released in each fiscal year. This Report is the 14th 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 (HK-ESG)* released by 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, the *GRI Sustainability Reporting Standards (GRI Standards)* issued by the Global Sustainability Standards Board (GSSB) and *SDG Compass* by the United Nations.

## Reporting Principles

The report follows the principles below:

**Materiality:** Following the procedure of identifying material topics stipulated by the *Environmental, Social, and Governance Reporting Guide (HK-ESG)*, 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. For easier data comparison, 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 benchmarking 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 specialized departments and the management team, 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://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

Board Office, 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](mailto:ir.energy@coscoshipping.com)



## 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 the best international and local corporate governance practices to safeguard the interests of stakeholders, investors, customers, 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 and assumes full responsibility for ESG strategies and reporting. It also monitors material ESG issues that may affect the Company's business, operations, and shareholders' interests. In 2021, the Board assessed, determined, and ranked material issues 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. The Board played its regulatory role and constantly checked progress to ensure that the established goals were achieved.

This Report discloses in detail COSCO SHIPPING Energy's ESG work and achievements in 2021. It was reviewed and approved at the 13th meeting of the 10th Board of Directors on March 30, 2022. 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.

## Message from the Chairman

It is our great delight to present to you this report on what we acted and achieved in promoting sustainability in 2021. We all witnessed the profound impact of COVID-19, frequent extreme weather conditions caused by global warming, and faster restructuring of the global economy and energy mix in the past year. All these factors have posed challenges to secure and stable energy supply. As an important player in global energy transportation, we always maintain our strategic focus, commit ourselves to shipping services, and follow the CSR philosophy of Integrated Capacity and Infinite Capability. In corporate governance and business operations, we have fulfilled our corporate social responsibilities and proactively responded to the shocks brought by the pandemic and climate change to the shipping industry. We do our best to facilitate energy transportation, offer consistent and high-quality services to global customers, strive toward our strategic goal of becoming a world leader in shipping capacity, business mix, safety marketing, and business model, and continue to power economic recovery.

We carry on the momentum for development. Aspiring to become an outstanding leader in global energy transportation, we take the initiative to embrace the new development paradigm featuring dual circulation where domestic and overseas markets reinforce each other. By adapting to changes in the global energy mix and the new ecology of international shipping, we contribute our share to the energy supply chain's safety and stability. We have launched China's first Very Large Crude Carrier (VLCC) pool – CHINA POOL, leveraging our fleet of ships of various sizes to provide efficient, safe transportation and support services for the global crude oil trade. By the end of 2021, we owned and controlled 166 oil tankers with a total capacity of 25.24 million DWT and a cargo volume of 167.2897 million tonnes.

We have consolidated the foundation for work safety. Safe operations are always on the top of our agenda. We put people and safety first and foremost, stress the importance of preventive measures, and take an integrated approach to address safety problems. Our quality, health, safety, and environment (QHSE) integrated management system has been certified, and the responsibility and accountability mechanism for work safety is put into place. The better use of information technology also helps us to improve fleet safety management. In addition, we work to create a safe, reassuring working environment to protect the health and safety of crew members.

We protect the beauty of the environment. In response to climate change, we fully grasp the market demand for green energy, make liquefied natural gas (LNG) shipping our "Second Development Curve", push ahead several long-term LNG shipping projects, and work with partners to boost the energy transition. Meanwhile, we have accelerated research on green ships, low-carbon and alternative fuels, consolidated our strengths in shipping services, and fully delivered on requirements for energy conservation and emissions reduction to meet the strategic goals of carbon peak and carbon neutrality.

We pool unified forces. We dedicate to the proposition of "people first", and strive to create a fair, flexible, efficient, harmonious workplace and a broad platform for employee growth. At the same time, we give back to society by engaging in activities such as marine rescue and volunteer services and helping communities contribute to building a harmonious society.

We appreciate your attention and support over the years. No matter how far we go, we always remain true to our original aspiration. In the face of a changing world, we will foster new opportunities amidst crisis and open up new horizons on a shifting landscape. We will apply the innovative development philosophy, fulfill our global corporate social responsibilities, and jointly build a global shipping ecosystem with stakeholders to contribute to sustainable development in China and the rest of the world.

Ren Yongqiang, Chairman of COSCO SHIPPING Energy

任永强



## CSR Spotlight

### Driving the Energy Transition and Fulfilling Green Commitments



As the world shifts to cleaner and low-carbon energy, natural gas, a clean and efficient energy source, has become a necessity for global energy transition and response to climate change. Seizing the development opportunities in the global natural gas market, the Company has formulated energy transition strategies, engaged in global LNG shipping, and explored new business opportunities and forms across the LNG industry chain, contributing to the global low-carbon energy transition.

### Shape the “Second Development Curve”

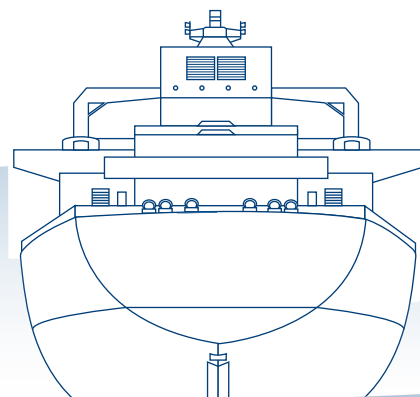
Highly recognizing the development of green energy, the Company develops LNG shipping as its second development curve. We make the LNG supply chain more resilient by strengthening operation and management and training LNG shipping professionals. During the *14th Five-Year Plan* period (2021-2025), we will seize the opportunity brought by rapid growth in the LNG market and turn ourselves from an LNG ship investor to an LNG carrier to play a more prominent role in ensuring energy security and serving the national energy development strategy.

### Build the LNG shipping capacity

We continue to build up our integrated LNG shipping capacity and opt for long-term LNG shipping cooperation as the mainstream model. We promote close cooperation across the LNG industry chain to build an interconnected, win-win LNG ecosystem that brings together large cargo owners, ship owners, and shipyards and ensures the security of national energy supply.

#### Case: Building synergy across the LNG industry chain to develop clean energy

On December 7, 2021, the time charter and shipbuilding contract of 3LNGC were signed for the Phase II of PetroChina International Project, which is the first LNG shipping project run, managed, and built entirely by Chinese companies, involving the Company, PetroChina International Co., Ltd (PCI) and Hudong-Zhonghua Shipbuilding (Group) Co., Ltd.. Since the first phase, COSCO SHIPPING LNG Investment (Shanghai) Co., Ltd. (CSLNG), a subsidiary wholly owned by the Company, has led ship selection and building, ship management, and operation management, closely cooperated with shipyards, strictly implemented the QHSE and ISO standards, and accomplished tasks up to high standards as scheduled. The signing of the Phase II contract will promote the development of the local shipbuilding industry and the application of clean energy.



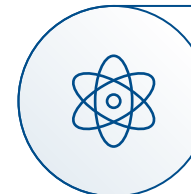
### Ensure first-class LNG ship management

To improve the quality and efficiency of ship management, we have established a ship management company in Hong Kong and promoted the establishment of the ship management system to enhance the independent ship management capabilities and ensure efficient, eco-friendly, and stable LNG transportation.



#### Promoting delicacy ship management

Our subsidiary CSLNG has registered COSCO SHIPPING LNG (Hong Kong) Ship Management Co., Limited. It follows world-leading ship management standards, improves its operation and management, and offers targeted safety services for all types of ships in all sea areas.



#### Improving the ship management system

CSLNG has completed the *QSHE Management System* and submitted it to the American Bureau of Shipping for review, laying the foundation for standardizing ship management.



#### Developing an LNG crew team

CSLNG and COSCO SHIPPING LNG (Hong Kong) Ship Management Co., Ltd. have signed the *Crew Service Framework Agreement* and *Crew Assignment Agreement* with COSCO SHIPPING Seafarer Management respectively, to attract LNG ship management talents. At the same time, we cooperate with domestic maritime universities to build a team of LNG senior management staff and carry out LNG professional training, career path design, and overseas training to reserve talents for building a world-leading LNG ship management company.

### Shape a new global energy landscape

The Company engages with upstream and downstream players to seek more LNG business opportunities, promote the application of LNG technology, and build an interconnected, win-win LNG ecosystem, to contribute to shaping the global inclusive energy governance landscape.

#### Case: Co-releasing the “LNG Blue Ocean Declaration” to contribute to global climate governance

On November 6, 2021, COSCO SHIPPING Corporation Limited (COSCO SHIPPING), China Merchants Group, and Mitsui O.S.K. Lines (MOL) jointly hosted the 3rd Shanghai International LNG Shipping Forum under the theme of LNG trade and shipping toward the goals of peaking carbon emissions and achieving carbon neutrality. As an important player in LNG shipping, COSCO SHIPPING Energy signed a memorandum of understanding with MOL on joint new energy research to cut emissions of ships at the forum, strengthening the momentum for the industry's high-quality development in the pursuit of decarbonization, building synergy across the industry chain, and ensuring the security of energy transportation.

Twelve LNG trading and shipping companies including COSCO SHIPPING, China National Petroleum Corporation (CNPC), and China Petrochemical Corporation jointly released the “LNG Blue Ocean Declaration” toward the goals of peaking carbon emissions and achieving carbon neutrality at the forum, pledging to center on people's wellbeing, seek green development, prioritize energy security, ensure high-quality shipping, pursue win-win cooperation, develop the market, contribute to global climate governance, and jointly build beautiful and harmonious communities.



# About Us

## Company Profile

COSCO SHIPPING Energy Transportation Co., Ltd., operating under COSCO SHIPPING Corporation Limited (COSCO SHIPPING), is specialized in oil and LNG shipping, founded in Shanghai on June 6, 2016. We are committed to becoming a whole-process, all-weather energy shipping solution provider for all types of tankers around the globe.

As of the end of 2021, the Company owned and controlled 166 oil tankers with a total capacity of 25.24 million DWT and controlled 6 jointly-owned LNG carriers. Focusing on the core business of oil and LNG shipping, the Company owns the world's largest fleet of oil tankers in terms of shipping capacity, covering all mainstream types of tankers in the world, and also the world's most diverse fleet. The Company is the leader in China's LNG shipping industry and actively invests in LNG carriers with partners to drive the development of clean energy.



### Vision

To become an outstanding leader in global energy transportation



### Mission

To deliver energy across the world

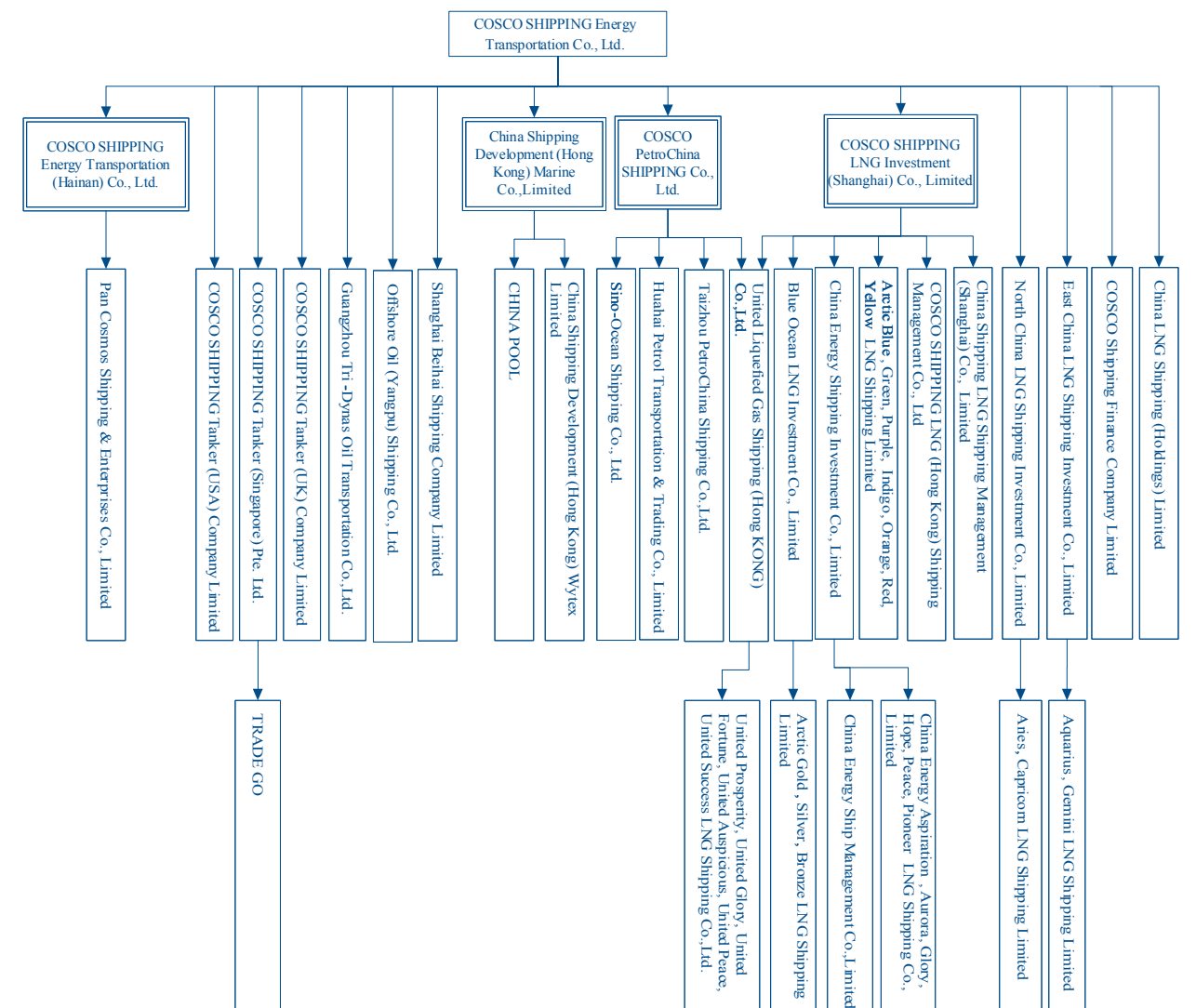
### Strategic goals

A global leader in shipping capacity, business structure, safe marketing, and business models

### Values

**C**redibility  
**S**afety  
**E**fficiency  
**T**ransparency

## Organizational Structure





CSR Performance

Parameters	2021年	2020年	2019年
Economic			
Total assets (RMB billion)	(A Share) 59.39 (H Share) 59.39	(A Share) 65.96 (H Share) 65.96	(A Share) 65.84 (H Share) 65.84
Operating revenue (RMB billion)	(A Share) 12.70 (H Share) 12.65	(A Share) 16.39 (H Share) 16.27	(A Share) 13.88 (H Share) 13.72
Net profit attributable to shareholders of listed companies (RMB billion)	(A Share) -4.98 (H Share) -4.99	(A Share) 2.37 (H Share) 2.38	(A Share) 0.43 (H Share) 0.41
Self-owned ships	166	156	153
Gross tonnage (million dwt/million cubic meter)	25.24/1.05	20.97/1.05	19.26/1.05
Transportation volume (million tonne)	167	160	150
Transportation turnover (billion tonne-miles)	507.74	486.06	440.79
Volume of crude oil shipment (million tonne)	130.94	127.88	118.96
Volume of product oil shipment (million tonne)	36.35	35.28	31.03
Average age of vessels (year)	10.47	9.55	9.40
Total number of suppliers	581	578	625
Suppliers from Hong Kong, Macao, Taiwan and foreign countries and regions	131	134	192
Suppliers from mainland China	450	444	433
Environmental			
Nitrogen oxides(NO <sub>x</sub> ) emissions (tonne)	87,780.92	88,261.50	84,816.30
Unit turnover emission of nitrogen oxides (kg/1,000 tonne-miles)	0.17	0.18	0.19
Sulfur oxides emissions (tonne)	9,585.27	9,637.75	58,494.00
Unit turnover emission of sulfur oxides (kg/1,000 tonne-miles)	0.02	0.02	0.13
Carbon dioxide emissions (tonne)	3,690,721.49	3,663,025.34	3,530,998.00
Scope 1 carbon emissions (tonne)	3,688,903.52	3,661,407.98	/
Scope 2 carbon emissions (tonne)	1,817.97	1,617.36	/
Unit turnover emission of carbon dioxide (kg/1,000 tonne-miles)	7.27	7.54	6.88
Oily water discharged (tonne)	75,666.06	100,118.21	68,148.00
Oil content of oily water (tonne)	10,290.50	15,284.65	8,124.36
Hazardous waste emissions (tonne)	10,767.16	13,939.12	8,374.78
Unit turnover emission of hazardous waste (g/1,000 tonne-miles)	21.21	28.70	19.00
Non-hazardous waste emissions (tonne)	607.40	413.00	404.39
Unit turnover emission of non-hazardous waste (g/1,000 tonne-miles)	1.20	0.85	0.90
Total energy consumption (electricity, gas, and oil) (kWh in' 000s)	11,735,179.63	11,797,778.68	11,341,741.25
Unit turnover of energy consumption (kWh in' 000s /1,000 tonne-miles)	0.02	0.02	0.03
● Direct energy consumption			
Gross fuel consumption (thousand tonne)	1,009.00	1,014.50	947.90

Unit fuel consumption (kg/1,000 tonne-miles)	1.99	2.09	2.21
Fuel conserved (tonne)	100,262.80	102,707.10	112,181.68
Lubricating oil consumption (tonne)	9,262.41	7,118.86	7,193.09
Total fuel consumption of official vehicles in Shanghai Headquarter (Litre)	18,014.27	18,112.45	38,270.00
● Indirect energy consumption			
Total power consumption (kWh)	1,823,445.25	/	/
Total water consumption (m³)	505,032.50	383,746.00	373,607.00
Water conserved (m³ )	272,823.50	196,601.60	198,447.92
Water consumption density (m³/1,000 tonne-miles)	0.000995	0.000790	/
Social			
Total number of employees	764	719	775
Number of expatriate employees	21	20	24
Number of new employees	71	25	26
Number of disabled employees	1	1	0
Coverage of labor contract (%)	100	100	100
Coverage of social insurance (%)	100	100	100
Return rate after maternity leave (%)	80	100	100
Physical examination coverage (%)	100	100	99.87
Total investment in trainings (RMB million )	3.23	0.95	2.17
Per capita training hours	31.21	39.28	23.85
Customer satisfaction (%)	100	100	82
Number of customer complaints	3	6	18
Complaint handling rate (%)	100	100	100
Supplier inspection coverage (%)	100	100	100
Zero defect pass rate of PSC Inspection (%)	74.00	87.88	74.58
Investment in work safety (RMB million)	117.12	87.94	111.31
Work-related fatalities	0	1	2
Lost days due to work injury	0	2	25
Work related fatality rate (%)	0%	0.01%	0.03%
Investment in Rural vitalization (targeted poverty alleviation) (RMB million)	20.00	8.49	7.60

Sources of factors for indicator conversion :

The NO<sub>x</sub> emission factor comes from relevant standards developed by COSCO SHIPPING.

The SO<sub>x</sub> emission factor comes from *Statistics on Energy Conservation and Environmental Protection of Central Enterprises* by State-owned Assets Supervision and Administration Commission of the State Council.

The CO<sub>2</sub> emission factor comes from International Maritime Organization (IMO) emission factors.

The total energy consumption conversion factor comes from *General Principles for Calculation of the Comprehensive Energy Consumption* coded GB/T 2589-2008.

Notes:

1. In 2021, parameters of oily water discharged, oil content of oily water, hazardous waste emissions, unit turnover emission of hazardous waste, non-hazardous waste emissions, unit turnover emission of non-hazardous waste, oil and gas conserved, total water consumption, water consumption density, water saved, and lubricating oil consumption, the statistical scope was adjusted to cover both the headquarters and subsidiaries on the consolidated financial statements.

2. For parameters of carbon dioxide emissions, Scope 1 carbon emissions, and unit turnover emissions of carbon dioxide, the statistical scope was expanded to include the six LNG carriers controlled by the Company, and retrospective adjustments have been made to annual historical data.

3. The main source of the Company's hazardous waste was oily water produced from tank washing procedures and solid hazardous waste. Non-hazardous waste was mainly kitchen waste.



## Honors and Awards

COSCO SHIPPING Energy was recognized by the State-owned Assets Supervision and Administration Commission as the Management Model among Key State-owned Enterprises.

COSCO SHIPPING Energy was named a model unit of Shanghai.

COSCO SHIPPING Energy was rated among the Top 50 Central SOEs in ESG Governance at the press conference for the release of the 2021 *ESG Blue Book of Central-Controlled Listed Companies* held by the Sci-Tech Innovation and Social Responsibility Bureau of State-owned Assets Supervision and Administration Commission.

COSCO SHIPPING Energy won the 2020 Investor Relations Management Award of the 23rd (2020) Golden Bull Award for Listed Companies.

COSCO SHIPPING Energy was rated among the "Top 100 Chinese Enterprises" at the 21st China Business Top 100 Forum.

COSCO SHIPPING Energy won the Best IR Listed Company award at the 2021 Sina Finance Overseas Investment Summit – Sina Finance Golden Unicorn Best Hong Kong and US Listed Companies.

COSCO SHIPPING Energy ranked 100th in the first "Top 500 Chinese Enterprises in ESG Performance" list released by Sina ESG Rating Center and CCTV-1's *The Growing the Great Brand*.

COSCO SHIPPING Energy was awarded the GoldenBee Excellent CSR Report 2021 – Growth Award at the 14th China CSR Report International Symposium.

COSCO SHIPPING Energy's LNG dual-fuel VLCC cooperation project won the Golden Key – Excellence Award at the Golden Key – SDG-Oriented China's Action hosted by *China Sustainability Tribune*.

The project team of COSGREAT LAKE won the title of National Worker Pioneer.

Xin Long Yang Party Branch was awarded the title of Model Primary-level Party Organization of Central Enterprises.



# Corporate Governance

In strict accordance with governance requirements for listed companies, we continue to improve the governance structure, optimize the governance mechanism, and enhance policies and procedures for internal control and compliance, risk prevention and control, and information disclosure. We also ramp up efforts to improve the compliance and effectiveness of corporate governance and modernize our corporate governance system and capabilities.

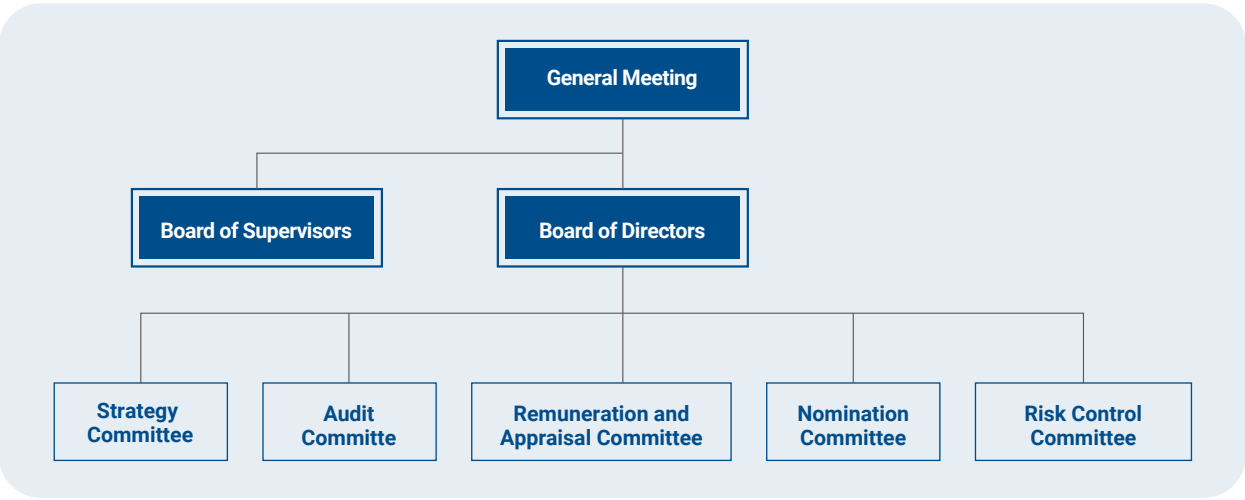
## Governance Mechanism

Strictly complying with laws and regulations and the requirements of regulatory authorities, 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.

The Board of Directors has nine directors, including five independent non-executive directors, accounting for 55.56% of the total. 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. In addition, the specialized committees are staffed with professionals and experts in accounting, law, and human resources to improve the competence and governance capacity of the Board of Directors.

The Board of Supervisors has four supervisors, including two shareholder representatives and two employee representatives. 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.

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. Its powers are defined strictly by the *Articles of Association* and other corporate governance documents.



Note: For more information on corporate governance, please refer to the *Corporate Social Responsibility Report 2021 of COSCO SHIPPING Energy Transportation Co., Ltd.* published on the official website of the Shanghai Stock Exchange, the Hong Kong Stock Exchange, and the Company.

## Internal Control and Compliance

The Company has institutionalized and standardized an effective internal control system, improved the compliance control mechanism and procedures, strengthened the implementation, and improved the Company's ability to guard against and respond to major risks, leading to the improvement of internal control management.

### Improving compliance and risk control

We have established the Corporate Compliance Committee and newly formulated the *Compliance Management Measures* to further strengthen compliance management and risk control in key business areas and links. We also continue to integrate the quality system well with the risk control system to improve our management efficiency.

### Improving the risk management system

We have revised our policies, such as *Risk Assessment Guidelines*, to improve risk early warning and screening.

### Optimizing the risk management and control mechanism

With a deep study of laws, regulations, and policies, we improve risk prevention of the fleet by issuing risk warnings, conducting risk investigations, and monitoring voyage compliance.

### Raising awareness of compliance and risks

We organize lectures on the Civil Code, risk management rules, and regulations to improve compliance awareness of employees and guide compliance. With the release of *Compliance Monthly*, we integrate risk management and compliance into the entire process of operation and service to encourage compliance.

### Protecting intellectual property

We value the establishment, protection, and proper use of intellectual property rights and avoid infringement happens. We also ensure that no valid patent rights of any third party are wittingly infringed, or obligations of confidentiality to any third party are disregarded.



## Business Integrity Management

We do business in compliance with international conventions, laws, and regulations, actively improve the existing business integrity management system to serve our development, crack down on commercial bribery at the source and tighten oversight over the business process. We strictly conduct internal integrity inspections, audits, supervision, and management with a "zero tolerance" attitude toward commercial bribery and corruption. In 2021, no integrity-related lawsuit against the Company was filed.

**Building an integrity system**

We keep following the updates on anti-commercial bribery conventions, laws, regulations at home and abroad, newly formulated Supervision Management Regulations, revised the *Anti-Commercial Bribery Management Measures*, the *Anti-Commercial Bribery Manual*, and other policies to ensure strict implementation.

**Preventing and controlling integrity risks**

We evaluate integrity risks, and carry out special and regular inspections to strengthen the management of important business areas such as procurement and supplier management where commercial bribery is prone to occur, identify integrity risks, and follow up rectification measures.

**Ensuring integrity audits**

We incorporate the anti-corruption principle into the annual audit plan, and regularly conduct economic responsibility audits on the staff in charge of subsidiaries during their service or after they leave the post. In 2021, we completed 11 internal audits related to integrity and conducted random inspections on the prevention and control of integrity risks in major investment projects.

**Setting a reporting mechanism**

We set up reporting mailboxes and hotlines, register and investigate any information reported, strictly protect the privacy and legitimate rights and interests of whistleblowers in accordance with the law, and do not allow threats or retaliation against whistleblowers.

**Creating a clean atmosphere**

Based on the WeChat official account "Clean Energy", and other platforms, we carry out anti-corruption education and improve employees' awareness of integrity through reminders, case sharing, policy interpretation, and themed training.

Note: For internal policies on business integrity management, please refer to the "Business Ethics" and "Governance" parts under the "Sustainability" section of the Company's website.

■ In 2021 ■

we held

10

training sessions on business integrity, with a total of

926

participants, covering the Board of Directors, all employees, and crew members

### Case: Holding a working meeting on Party conduct and incorrupt governance

On February 8, 2021, the annual anti-corruption working meeting was held. The Company's Party Secretary and Chairman raised anti-corruption requirements for all employees. The Secretary of the Disciplinary Committee alerted and educated employees and detailed annual anti-corruption work. The purpose of the meeting was to improve Party conduct, promote incorrupt governance and heighten employees' compliance awareness to provide strong support for the Company's strategic development.

### Case: Holding an exchange meeting on business integrity to raise employees' awareness of integrity and responsibility

On April 23, 2021, the Company held a corruption risk prevention and control meeting and exchange meeting on anti-corruption, clarifying requirements for important business sectors, corruption risk prevention and control on ships, and anti-commercial bribery management. All subsidiaries signed the commitment of integrity and self-discipline, aiming to strengthen business ethics, and build mechanisms to ensure that employees do not dare, are notable, and ultimately have no desire to be corrupt. This meeting implemented integrity management and created an uplifting and entrepreneurial atmosphere for high-quality development.



The corruption risk prevention and control meeting cum exchange meeting

## Transparent Communication

Following high standards of information disclosure, we earnestly implement various regulatory requirements and improve the information disclosure mechanism to ensure compliant disclosure of authentic, accurate, and complete information. In 2021, we published five reports as scheduled, including the 2020 annual report, the CSR report, and the 2021 quarterly report. We received the A-level rating for information disclosure by the Shanghai Stock Exchange for 2020 to 2021.

Meanwhile, the Company has established a variety of effective communication channels with investors, including conference calls, roadshows, strategy meetings, SSE e-interactions, online performance briefings, to show our achievements and CSR performance in full and convey the investment value, winning their recognition and support.



# ESG Management

Following the CSR philosophy of Integrated Capacity and Infinite Capability, COSCO SHIPPING Energy actively communicates with stakeholders such as customers, the government, investors, partners, employees, communities, and environments to fully understand effectively and respond to their demands and work with them in taking practical and effective CSR actions toward the United Nations Sustainable Development Goals, and contribute to social, economic, and environmental development.

## Management Structure

COSCO SHIPPING Energy continues to improve the ESG management structure to see that ESG management is fully integrated into corporate governance. The Board of Directors, the highest decision-making body responsible for the Company's ESG matters, including ESG strategy and reporting, plans and reviews overall ESG management work.

To help the Board of Directors better supervise key ESG issues, the Strategy Committee is set up to analyze the Company's sustainable development and ESG strategies, set up goals, build an evaluation mechanism, make recommendations, and regulate the ESG governance work. The Company's management organizes and advances ESG management to see that ESG concepts align with the Company's strategies. Under the Company's management is the Safety Management Committee composed of the general manager, other executives, departmental heads, and the heads of affiliated enterprises. The Committee serves as a core organization for decision-making on work safety and environmental management and implements the resolutions of the Board of Directors on safety and environmental management. In addition, the ESG Working Group is also established under the Company's management to execute specific ESG work and regularly report its progress to the management.



ESG Management Structure

## Management Policies

Pursuing responsible business growth and operations, COSCO SHIPPING Energy has laid down a set of ESG management policies to support and guide the direction of sustainable corporate development.

Social policies

Employee Management Measures  
General Rules for Crew Management and Occupational Health  
Work Safety Supervision Measures (Trial)  
Procurement Management Measures  
Supplier Management Measures (Trial)  
Measures for External Donations

Environmental policies

Environmental Protection Management Procedures  
Guidelines for Implementing Ship Energy Efficiency Management Measures  
Regulations on the Management of Tanker Oil Pollutants  
Industry Rules for Ship Recycling Operations

Governance policies

Articles of Association  
Rules of Procedure of the Board of Directors  
Risk and Internal Control Manual  
Corporate Code of Conduct  
Anti-Commercial Bribery Manual  
Measures for the Management of Anti-Commercial Bribery  
Management Measures for Corruption Risk Prevention and Control (Trial)  
Compliance Management Measures

Safety management

**Goal setting:** Formulating annual safety goals and incorporating safety management and work safety goals into the work report of the Board of Directors.

**Supervision and management:** In 2021, the *Safety Performance Report* was included in the deliberation of the Board of Directors, covering the Company's safety and environmental protection performance in 2021, as well as safety and environmental management goals and key work in 2022.

**Implementation:** Based on the overall management of the Safety Management Committee, the management implements the safety management with the help of the "three-in-one" safety management model of the ship management center, the safety supervision department, and the technical support department.

**Performance management:** the *Liability Statement for Work Safety and Environmental Protection* is signed, which directly links safety management performance such as the number of work safety accidents and the number of major hidden dangers that are not discovered or reported in time with the performance of the management and their remuneration to see that responsibilities are fulfilled and performance is improved.

Environmental management

**Goal setting:** Formulating short-term and long-term environmental goals and specifying the direction of environmental management.

**Supervision and management:** The Strategy Committee of the Board of Directors reviews environmental work plans and goals.

**Implementation:** The group for energy conservation and emission reduction and the management office coordinate, supervise, guide, and evaluate environment-related work and implement the environmental work plan.

**Performance management:** We set up environmental protection goals and indicators every year and link environmental performance with management salaries. Under the *Performance Assessment Standards for Persons in Charge of COSCO SHIPPING Energy*, the performance of energy conservation, emission reduction, and environmental protection is regarded as a binding indicator for the management to ensure that environmental goals are delivered.

Business ethics management

**Planning:** The Audit Committee formulates and reviews the annual work plan.

**Supervision and management:** The management ordainates the integrity management work, improves the integrity system and management system, supervises the implementation of relevant responsibilities, and carries out integrity education.

**Execution:** The Supervision and Audit Department monitors and manages the integrity work, makes rectification suggestions for potential integrity risks, and follows up on the rectification.

**Policy guarantee:** We make use of the *Supervision Management Regulations*, *Anti-Commercial Bribery Management Measures*, *Anti-Commercial Bribery Manual*, and other policies to put in place for effective management and restraint.



## Material Topics

According to the process specified in the GRI Sustainability Reporting Standards(GRI Standards) issued by the Global Sustainability Standards Board(GSSB) and the Environmental, Social and Governance Reporting Guide (HK-ESG) released by The Stock Exchange of Hong Kong Limited on how to define material topics, and taking into account the sustainability trends in the industry, peer performance, and survey results from internal and external stakeholders, we sorted out topics of concern to stakeholders, determined the Company's sustainability priorities, and reviewed our progress against key ESG indicators of safety, environment, and business ethics to ensure that goals are implemented.

In 2021, we conducted a materiality survey on internal and external stakeholders. The Board of Directors confirmed 22 material topics based on the survey results and the evaluation of major material topics. We ranked these material topics according to their economic, environmental, and social impact, and their impact on the decision-making of stakeholders, and determined the priorities of the Company's ESG management and information disclosure to better respond to stakeholder concerns.



Analysis on Material Topics

## 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"><li>• Pay taxes according to law</li><li>• Promote employment</li><li>• Financial performance</li><li>• Post-COVID-19 economic recovery</li><li>• Sustainable growth of corporate value</li></ul>	<ul style="list-style-type: none"><li>• Abide by laws</li><li>• Create jobs opportunities for local communities</li><li>• Release regular reports and CSR reports</li><li>• Strengthen communication and reporting with government / regulatory authorities</li><li>• Promote business development and sustainable and stable profit growth</li></ul>
Shareholders	<ul style="list-style-type: none"><li>• Compliance operation</li><li>• Business integrity management</li><li>• Risk management and internal control</li><li>• Independence and diversity of the Board of Directors</li><li>• Sustainability capacity</li></ul>	<ul style="list-style-type: none"><li>• Improve profitability</li><li>• Hold general meetings of shareholders</li><li>• Enhance communication with investors</li><li>• Strengthen internal control and improve supervision</li><li>• Release periodic reports and CSR reports</li></ul>
Employees	<ul style="list-style-type: none"><li>• Safeguard basic rights and interests</li><li>• Talent attraction and retention</li><li>• Staff training and development</li><li>• Compensation and benefits</li><li>• Diversity and equal opportunities</li><li>• Occupational health and safety protection</li><li>• Care for the crew</li></ul>	<ul style="list-style-type: none"><li>• Provide assistance to employees in need</li><li>• Provide competitive salary and welfare</li><li>• Carry out diversified employee training</li><li>• Arrange the staff congress, employee dialogues and other communication meetings</li></ul>
Communities	<ul style="list-style-type: none"><li>• Public charity</li><li>• Poverty alleviation / Rural vitalization</li></ul>	<ul style="list-style-type: none"><li>• Invest in community building and poverty alleviation</li><li>• Participate in marine rescue</li></ul>
Environment	<ul style="list-style-type: none"><li>• Address climate change</li><li>• Hazardous Waste Management</li><li>• Marine biodiversity conservation</li><li>• Investment in environmentally friendly vessels</li><li>• Fleet energy-saving transformation</li><li>• Responsible ship recycling</li><li>• Environmental initiatives and cooperation</li><li>• Set carbon emission targets</li><li>• Research and application of low carbon fuel</li></ul>	<ul style="list-style-type: none"><li>• Identify climate change risks and opportunities</li><li>• Develop green shipping</li><li>• Greenhouse gas emission reduction</li><li>• Whole process environmental protection</li><li>• Active information disclosure on the Company's fulfillment of environmental responsibilities</li></ul>
Clients	<ul style="list-style-type: none"><li>• Guarantee of global energy supply</li><li>• Guarantee shipping safety</li><li>• High quality customer service</li><li>• Network and information security</li><li>• Customer satisfaction</li><li>• Protection of customer privacy</li></ul>	<ul style="list-style-type: none"><li>• Optimize the layout of the global branches</li><li>• Provide customized services</li><li>• Open channels for customer feedback</li><li>• Shipping safety management</li></ul>
Suppliers	<ul style="list-style-type: none"><li>• Responsible procurement</li><li>• Supplier management</li><li>• Supplier diversification</li><li>• Promote the development of industrial chain</li></ul>	<ul style="list-style-type: none"><li>• Provide equal opportunities</li><li>• Adhere to optimal selection</li><li>• Conduct responsible procurement</li></ul>
Peers / NGOs / industry organizations	<ul style="list-style-type: none"><li>• Participate in industry cooperation</li><li>• Promote fair competition</li><li>• Drive the development of the industry</li><li>• Participate in industry initiatives</li></ul>	<ul style="list-style-type: none"><li>• Carry out strategic cooperation</li><li>• Participate in industry scientific research and development of industry standards</li><li>• Attend industry forum meetings</li></ul>
Media	<ul style="list-style-type: none"><li>• Media cooperation</li><li>• Brand building</li></ul>	<ul style="list-style-type: none"><li>• Hold media communication meetings and press conferences</li><li>• Release company news</li></ul>



# Strive for Win-win Cooperation for Sustainable Development

In this critical period of the global energy transition, traditional energy shipping is undergoing profound changes. Since the energy shipping industry matters a lot to the global economy, COSCO SHIPPING Energy, committed to becoming an outstanding leader in global energy transportation, takes on the mission to ensure the security of the oil and gas industry chain and works with clients and partners to build a sustainable industry ecology for all and contribute to global economic development.

## Key topics

Energy transportation around the world

Accelerate digital empowerment

Provide excellent services

Promote the development of the industry



- Building a world-leading energy transportation team, running CHINA POOL, and improving operational efficiency
- Promoting the digital empowerment strategy, impelling digital application on tankers, and advancing digital transformation in business
- Improving customer service management, customizing service programs, and providing global customers with high-quality services
- Creating a win-win industry ecology to inject impetus for the sustainable development of the energy industry



# Energy Transportation around the World

Energy is the driver of global economic development. Seizing the opportunity for development in the shipping industry, we have scientifically planned the fleet capacity and optimized routes to provide stable and robust transportation for national and global energy trade and to power global economic recovery.

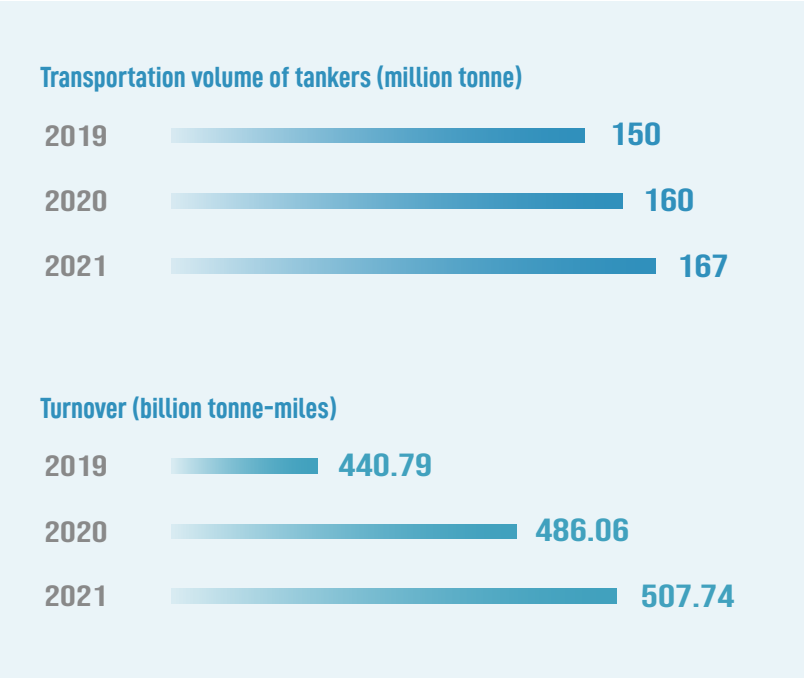
## Leverage Strengths in Shipping Capacity

As of December 31, 2021

COSCO SHIPPING Energy owned and controlled

166 oil tankers  
with a total capacity of 25.24 million DWT

We make full use of our fleet size by coordinating the operations of ships for domestic and international trade, tankers carry product oil and crude oil, and large and small ones, to provide global, all-weather high-quality services with all types of tankers to clients. Meanwhile, we expanded the LNG fleet to serve the global energy trade.



As Of The End Of 2021

42 VLCCs were under CHINA POOL's operation  
CHINA POOL has developed 5 new Charterers in 2021

## Operate the VLCC Pool

We run China's first very large crude-oil carrier (VLCC) pool – CHINA POOL. With the large-scale and specialized operation of the fleet, we closely cooperate with upstream and downstream partners of energy transportation and give full play to the clustering effect. By improving energy trade efficiency, we bring higher revenues to ship owners and provide customers with more reliable energy transportation.



The signing ceremony of the CHINA POOL

### Case: CHINA POOL, China's first VLCC pool, put into operation

On October 18, 2021, CHINA POOL was officially put into operation. Adopting large-scale and specialized operations, it takes in external shipping capacity, makes allocation on VLCC capacity, and undertakes charter party with flexible terms, effectively improving the overall operational efficiency of the fleet and offering safer and more efficient transportation and supporting services.

"China's first VLCC pool is put into operation, which is conducive to strengthening industry cooperation and ensuring the safety of energy transportation."  
——Hu Jianwu, Deputy Director of the Oil and Gas Department of the National Energy Administration

## Build a Global Network

Based on the eight customer service and operation platforms in Beijing, Dalian, Shanghai, Guangzhou, Hong Kong, Singapore, Houston, and London, we reach out to customers across the globe, deepen strategic cooperation, optimize route layout, and seek more partnerships to expand our global network.

### Opening new routes

Building large triangle routes, covering Australia in the east, East Africa and Europe in the west. Developing new routes from the Far East to Alaska and from Singapore to New Caledonia.

### Expanding new cooperation

Launching multi-faceted cooperation with international charterers such as Chevron and Shell.



# Accelerate Digital Empowerment

Digital transformation is the booster of a company's core competitiveness. COSCO SHIPPING Energy has formulated the digital empowerment strategy and the corresponding action plan aimed at "smart decision-making, operation, ship management, and customer service." We strive to strengthen cargo safety and trade services through innovation and promote the high-quality development of the energy transportation industry.

## Explore Smart Business Models

To "support and empower operations and management," we seize the opportunity of digital transformation, explore smart business models, and improve information systems to enhance our market competitiveness.

Serving smart management

We continue to optimize the operating system of CHINA POOL and have developed core digital functions such as ship scoring, profit distribution, and voyage management.

Empowering smart operations

We analyze the relationship between sailing speed and fuel consumption under various conditions or factors and use digital algorithms to establish a speed and fuel consumption model focusing on VLCC to help us reduce costs and increase efficiency.

Contributing smart decisions

Relying on the data management platform, we build the freight rate index forecast model and use the intelligent algorithm model to help predict freight rate trend.

## Strengthen Smart Ship Management

We steadily build an intelligent ship monitoring system and a digital fleet management center and promote the use of intelligent technology to realize 24/7 ship monitoring and better management of ship safety and energy efficiency.

Intelligent early warnings of ship risk

We provide early warnings for ship risks in the next 12/24/48/72 hours and post early warnings through mobile applications to realize timely reminders, real-time monitoring and inquiry.

Intelligent monitoring of ship equipment

We build an intelligent monitoring scenario for the working conditions of key ship equipment to realize automatically identification of equipment failures and fault analysis, and enable key equipment monitoring and management, to ensure equipment safety.

Intelligent management of ship energy efficiency

We carry out research on the application of intelligent monitoring of abnormal fuel consumption, and recommend the optimal speed for ships based on factors such as weather forecasts to increase energy efficiency and reduce costs.

## Improve Intelligent Customer Service System

We continue to improve the "Captain Energy" app for customer service. We take customer advice and add the "one-click check on arrival" function to give customers access to multi-dimensional information such as the line-up of domestic tanker terminals, the estimated time of arrival, the berth to call, and cargo types and volumes to meet refined service needs.

As of the end of 2021

"one-click check on arrival" allows customers to check line-up and berthing information in

20 key domestic ports

# Provide Excellent Services

Customer-centered, we continue to improve the customer service management system, address customer needs, and upgrade service processes and methods to offer high-quality services.

In 2021

we received 3 customer complaints which were all handled customer satisfaction reached

100%

Standardizing service management:

We have established and improved the Measures for Customer Management to standardize customer development and relationship management, and protect customer privacy, strictly control customer information access and use rights, thus ensuring customer information security.

Improving service quality:

We regularly collect, analyze, and solve the problems commonly reported by customers, respond to customer complaints, follow up rectification and give feedback, and keep improving customer satisfaction.

Improving customer experience:

We have in-depth communication with key customers of domestic and foreign markets, design customized service plans according to the actual needs of customers, and carry out whole-process communication through account managers. We provide innovative solutions to shorten the time required, reduce communication costs, and improve customer experience.

### Case: Providing personalized solutions for domestic traders

Due to siltation at some commonly used terminals, the loading capacity was reduced due to lower water depth, which troubled cargo owners in their inventory management. In response, we took a targeted countermeasure. We measured tankers' drafts for each voyage and provided stowage data for subsequent calling. We also discussed the stowage plan with customers in advance and regularly coordinated the dredging of terminals to ensure optimal stowage on the premise of safety, winning recognition and trust from customers.



# Promote the Development of the Industry

We have launched long-term strategic cooperation with partners to promote resource complementarity jointly, seize opportunities and respond to challenges of the shipping industry, make the industry more resilient and vigorous, and pursue win-win results.

## Build a Responsible Supply Chain

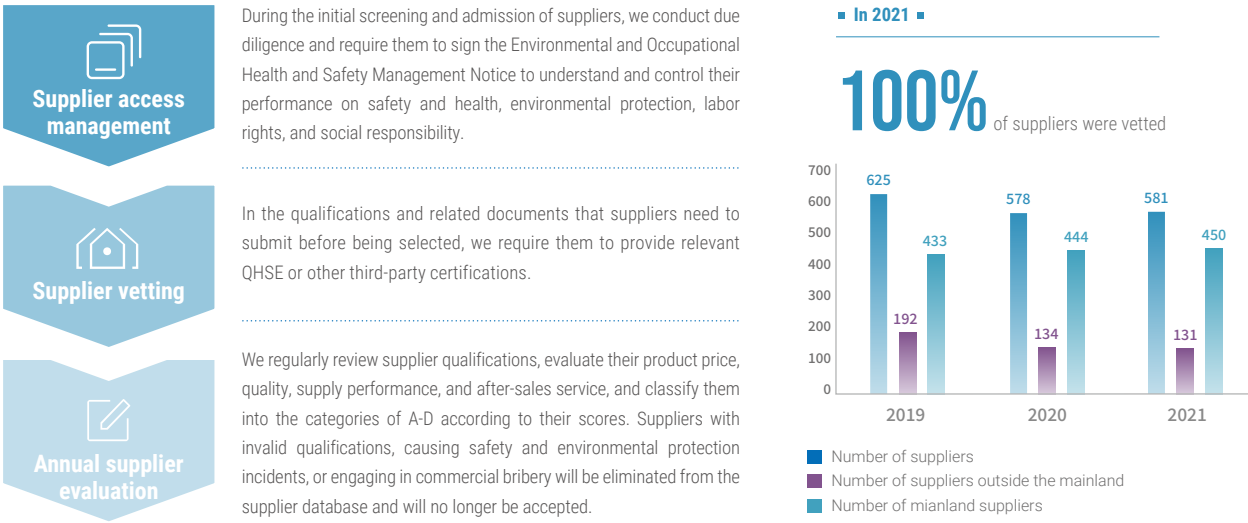
While improving our own CSR performance, we integrate CSR concepts into supply chain management. We evaluate suppliers' CSR performance, raise their CSR awareness, and strengthen their CSR accountability and capability against risks, to build more resilient supply chains together.



Supply chain ESG risks		Countermeasures
Environmental risks	Marine pollution	<ul style="list-style-type: none"><li>We formulated special emergency plans and operational procedures to improve risk control and response;</li><li>We held regular meetings for crew members to improve their marine environmental protection awareness.</li></ul>
	Occupational safety and health	<ul style="list-style-type: none"><li>We implemented the <i>Maritime Labor Convention</i>, formulated and strictly implemented the <i>General Principles for Crew Management and Occupational Health</i>;</li><li>We improved crew safety and health management and applied to them the same health and safety standards for regular employees;</li><li>We formulated occupational health and safety plans, regularly reviewed crew occupational health management, and identified, assessed, and controlled hazardous elements.</li></ul>
	Labor rights	<ul style="list-style-type: none"><li>We signed the <i>Crew Management Service Agreement</i> with COSCO SHIPPING Seafarer Management and demanded it fulfill its obligations of labor protection and social security for the crew;</li><li>We demanded that it sign labor contracts with crew members and arrange reasonable working hours.</li></ul>
	Moral values	<ul style="list-style-type: none"><li>We demand suppliers and brokers to sign the <i>Anti-Commercial Bribery Commitment</i>;</li><li>We include anti-commercial bribery clauses in bidding documents and business contracts.</li></ul>

## Strengthening supplier management

We continue to improve supplier management. Meticulous evaluation and review are required on suppliers during the procurement process. The procurement decision-making system is improved. We work to avoid problems in quality, safety, environment, labor, and business ethics and provide reassuring products and services that satisfy customer needs.



## Lead to Build a New Industry Ecology

We engage in the shipping blockchain alliance. We invested in a blockchain platform company, TradeGo, applied blockchain technology in energy transportation, and promoted the business model innovation of energy and petrochemical industry chain, which supported the digital transformation of the industry.

### Case: Building a commodity blockchain platform

On November 6, 2021, at the 4th China International Import Expo, COSCO SHIPPING Energy signed a joint venture agreement with nine companies, including Sinochem Energy, PetroChina International Co., Ltd., Macquarie Group, and Bank of China, to establish the joint venture TradeGo Pte. Ltd. The platform aims to become a global digital infrastructure operator for commodity trading, build a digital document delivery platform based on blockchain and distributed storage technologies, protect trades' privacy, solve the fraud and efficiency problems of international commodity trading, and improve the overall operational efficiency of the industry.

## Promote Industry Cooperation and Exchanges

We actively research topics such as decarbonization of the shipping industry and green shipping. For example, we contributed to major scientific research projects of the Ministry of Industry and Information Technology and COSCO SHIPPING, such as the *Development and Application of the New Waste Incineration System*, *Development of New Marine Domestic Sewage Coarse Graining Devices*, *Research on the Application of Key Technologies for the Development of Large Ships to Meet the Third Phase of EEDI*, and *R&D and Application of Key Technology for Dual-fuel VLCCs*. We also strengthened cooperation with COSCO SHIPPING Heavy Industry Co., Ltd., Shanghai Jiao Tong University, Dalian Maritime University, and China Classification Society in the application of new energy technologies to promote the technological progress of the industry.





# Put Safety First with Practical Actions

Safety sustains the development of energy transportation enterprises. We see energy security as our mission and put high-quality transportation at the center. We integrate our safe operation into the process of promoting global socio-economic development, and build a safe and stable foundation for the our development and energy transportation.

Key Topics

»

Improving safety management

Preventing and controlling safety risks

Improving emergency response

Building a culture of safety



- Improving the safety management system, implementing responsibilities of safety supervision, and strengthening the execution of safety management
- Strengthening the management of ship safety risks, identifying and eliminating potential dangers, and ensuring the health and safety of the crew
- Improving the safety emergency management system, standardizing technical operations, and enhancing emergency support and response
- Carrying out safety inspections, heightening safety awareness, and building a culture of safety



# Safety Management System

We work tirelessly to “guarantee the safety of people and ships, and protect the marine environment.” To this end, we have improved the safety management mechanism, built high standards of safety management, ramped up efforts to strengthen the implementation of accountability on occupational safety, and strove to meet the goal of zero injuries, zero workplace accidents, and zero environmental pollution, laying a solid foundation for stable operations.

In 2021, we obtained the QHSE management certification issued by China Classification Society Certification Co., Ltd. (CCSC), marking that our ERM-based high-standard comprehensive management system, covering safety, quality, occupational health and safety, environment, energy, cybersecurity, and work safety, was completed and came into effect.

## Certification of the safety management system

We continue to build a high-standard safety management system to see that it complies with international and domestic mandatory regulations and rules on occupational health and safety and in accordance with applicable rules, guidelines, and standards recommended by competent authorities, classification societies, as well as industry organizations recognized by the Company.

Safety management certificates obtained			
Certificate	Issued to	Issued by	Validity period
Certificate of the occupational health and safety management system	COSCO SHIPPING Energy	CCSC	November 12, 2021 – November 11, 2024
Certificate of the environmental management system	COSCO SHIPPING Energy	CCSC	November 12, 2021 – November 11, 2024
Certificate of the quality management system	COSCO SHIPPING Energy	CCSC	November 12, 2021 – November 11, 2024
Certificate of work safety standardization	COSCO SHIPPING Energy	CCSC	December 2, 2020 – December 1, 2023
Certificate of the quality management system ISO9001: 2015	CSLNG	Lloyd's Register	June 10, 2019 – June 9, 2022
Certificate of the environmental management system ISO14001: 2015	CSLNG	Lloyd's Register	June 10, 2019 – June 9, 2022
Certificate of the occupational health and safety management system ISO45001: 2018	CSLNG	Lloyd's Register	June 10, 2019 – June 9, 2022
Certificate of the environmental management system GB/T24001: 2016	CSLNG	LRQA Shanghai Corp., Ltd.	June 10, 2019 – June 9, 2022
Certificate of the quality management system GB/T19001: 2016	CSLNG	LRQA Shanghai Corp., Ltd.	June 10, 2019 – June 9, 2022

## External safety audits

We receive external certification and audits of the safety management system to make it more effective and applicable.

External security audits conducted					
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	Checking the compliance of the Company's safety management system according to the ISM code and verifying the implementation of the Company's safety management system	Conformance to standards
DOC audit for Panama-flagged ships	COSCO SHIPPING Energy	Relevant departments under the safety management system	Annual	Checking the compliance of the Company's safety management system according to the ISM code and verifying the implementation of the Company's safety management system	Conformance to standards
Inaugural QHSE audit	COSCO SHIPPING Energy	All departments of the COSCO SHIPPING Energy headquarters	Annual	Establishing the Company's QHSE system according to GB/T 19001-2016/ISO 9001:2015; GB/T 24001-2016/ISO 14001:2015; GB/T 45001-2020/ISO 45002:2018 standards, and verifying implementation of the requirements	Conformance to standards
Annual audit of work safety standardization	COSCO SHIPPING Energy	Relevant departments under the safety management system	Annual	Checking in accordance with the work safety standardization levels of transportation enterprises	Pass in the audit for tier-one enterprises

## Internal audits of the shore-based safety system

We conduct annual internal audits of the safety system to see whether our comprehensive management system and documents conform and adapt to relevant international conventions, laws, and regulations. We have stepped up to identify, prevent and control and eliminate safety management risks. The internal audit of the shore-based safety system covers all business sectors and promotes standardized and orderly system management, helping us to build a solid defense line against safety risks.

Audit	Auditee	Frequency	Audit focus	Results
The 2021 shore-based internal audit of the headquarters	All departments of the headquarters	Annual	Verifying whether the Company's comprehensive management system documents are compliant with ISM/NSM Codes, ISPS Code, applicable conventions, laws and regulations, TMSA3 standards, whether the shore-based comprehensive management system meets the requirements of ISM/NSM Codes, and whether shore-based management activities meet the requirements of applicable conventions, laws, and regulations.	The management system established by the Company in accordance with the ISM/NSM Codes, Marine Labor Convention 2006, relevant international and domestic regulations, rules and regulations, TMSA3 standards, and industry guidelines are in line with the Company's management policies and objectives. The audited data show that the Company's management system works.

■ In 2021 ■

- 0work safety accidents incurring significant responsibilities
- 0work safety accidents incurring major responsibilities
- 0work safety accidents incurring moderate responsibilities
- 3small accidents



# Implement Safety Management Measures

Safety management concerns everyone and every aspect of our work. We continue to care for the crew, protect their life and the safety of ships, respect the marine environment, comply with laws and regulations, and take our responsibilities seriously. We have consolidated the foundation of safety management and improved safe operations of ships to protect every crew member and every ship and to ensure the security of the energy supply chain.

## Reduce Ship Risks

Based on the principle of "preparation, deployment, inspection, and implementation in advance," we analyze, predict, identify, and control various safety risks and carry out ship-shore joint drills against ship collision, grounding, oil spills, and piracy. We implement seasonal and regional safety precautions to minimize or eliminate ship safety risks. In 2021, we added or revised such policies as the *Administrative Instructions for Ship Safety Inspections* and *Procedures for Reporting, Investigating, Analyzing, and Handling Accidents and Dangerous Situations* to improve our ability to guard against and respond to safety risks in all respects.

▶ Reinforcing active avoidance

Based on the characteristics of tanker management, we encourage voluntarily evade and keep a minimum distance longer than one nautical mile when conditions permit.

▶ Preventing oil spill

We strengthen the maintenance of ship equipment to avoid oil spills from the source and rectify problems in a timely manner, to prevent oil spills due to operational error.

▶ Classifying safety risks

We continue to classify risks and bring them under control, update the list of important environmental factors and hazards annually, and verify the implementation of risk assessments through shore-based inspections.

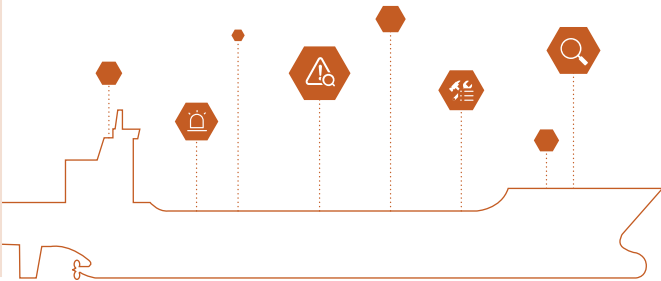
▶ Investigating and managing hidden dangers

We improve the three-level inspections of shore-based inspections, subsidiary inspections, and ship self-inspections to realize accurate investigation and control of hidden dangers and rectify them.

📖

Captain Energy Classroom

Oil spills pose a major threat to the safety of oil tankers. The explosion may cause the sinking of ships and casualties of crew members. Oil spills are also one of the major pollutants in the marine environment. In addition to acute toxicity, the oil may coat and suffocate any creature that catches it, including plankton, fish, and other marine organisms, as well as coastal amphibians, mammals, and birds.



## Ensure the Health and Safety of the Crew

We strictly implement the Maritime Labor Convention and the General Principles for Crew Management and Occupational Health and apply the same health and safety standards for regular employees to the crew. We have formulated occupational health and safety plans and regularly reviewed crew occupational health management. We identify, evaluate, and control hazardous elements while improving labor safety protection and safety awareness among crew members to protect their health. Relevant management measures and practices are implemented under strict annual internal and external audits conducted by classification societies and maritime bureaus.

Preventing crew safety risks	We identify and evaluate occupational health hazards and have formulated measures for key risk sources such as oil and gas, exhaust gas, noise, vibration, welding radiation, chemicals, asbestos, high temperature, lighting, operations in the engine room, cargo operations, and pump room operations.
Enhancing crew safety skills	We carry out regular training on first aid, collision avoidance, pollution prevention, risk assessment, and accident investigation to provide standardized operation guidance, strengthen crew skills in safe operations, and ensure work safety.
Equipping labor protection equipment	We provide adequate labor protection items such as overalls, work shoes, hard hats, eye/ear protection equipment, safety harnesses, and chemical protection equipment to the crew. Crew members who fail to use labor protection equipment as required are forbidden to work.
Keeping regular covid-19 response	We keep regular pandemic prevention with a long-term effective emergency response mechanism and provide sufficient protection for the crew to ensure orderly operations and the safety and health of the crew.

### Case: Ship-shore collaboration to help a sick crew member

On October 4, 2021, when MV SHAN HU ZUO was sampling at the Huizhou anchorage, one of her crew members suddenly fell ill. Immediately the procedure of handling occupational injuries and onshore disease was activated: the medical officer had a preliminary look at the sick crew, and the situation was reported to the Company for support. Once informed, the Company instructed the ship to formulate an emergency transfer plan and work with shore staff to get ready for the transfer of the patient. We planned the optimal rescue route and earned precious time for the patient to access medical treatment.

■ In 2021 ■

we owned

135

tankers

arranged

1,047

times crew changes

sent

4,877

people on board

and

4,603

people off board

we set up a special reward of RMB

11

million for extended service

we conveyed sympathies to crew members and issued financial subsidies totaling RMB

39,000



## Strengthen Cybersecurity Management

As more intelligent and information technologies are embedded in ships, the importance of cybersecurity is heightened in the shipping industry. We have improved the cybersecurity management system, and carried out training for all employees to heighten cybersecurity awareness and protected major activities and daily operations from cyberattacks to ensure information security. In 2021, no cybersecurity incident was reported.

### Improving cybersecurity management

We have formulated an annual cybersecurity plan and prepared information system emergency plans. We regularly conduct cybersecurity risk assessments, security testing, and emergency drills and constantly optimize the cybersecurity management system.

### Strengthening cybersecurity training

By providing special training, publicity reports, information release and early warning, we improve employees' awareness of cybersecurity and avoid risks such as phishing and SMS fraud in daily work.



### Enhancing cybersecurity on important occasions

On important occasions, such as major festivals, holidays, and key drills, we carry out key cybersecurity projects and rectify problems identified in self-evaluations. We also improve our emergency response plans to remove safety loopholes.

## Improve Emergency Response

Policies and procedures, including the *General Principles of Emergency Response and Risk Analysis*, the *Emergency Reporting and Emergency Response* and the *Emergency Support* are formulated and strictly put into effect. We continued to strengthen safety emergency management, training, and drills on emergency response, and regularly checked and updated the emergency response member list, and the list of emergency response equipment, etc., to ensure that they are ready for deployment at any time in case of emergency, and to improve the capacity of emergency support and response.

### Emergency management

The Headquarters has established an emergency management leading group headed by the general manager of the Company and established an emergency command center. Subsidiaries have established an emergency response organization for "unified leadership and hierarchical responsibility" in response to work safety emergencies.

### Emergency training

In the ship's annual training plan, emergency response knowledge and training such as fire and abandonment of the ship are included, and ships are required to carry out regular emergency training in accordance with the Rescue of Persons in the requirements of the Training Manual for fire protection and life-saving and Plan and Procedures for Water to ensure that crew members master the use of life-saving and fire-fighting equipment to ensure quick response.

### Emergency drills

We carry out joint ship-shore emergency drills centering around collisions, hull damage, loss of power, grounding, oil spills, environmental pollution, fire, and explosion to improve the emergency response of both ship and the shore sides.

#### ■ In 2021 ■

we conducted ten emergency drills with a total of

**236** participants

we cooperated with the maritime authorities in Dalian, Tianjin and Huanghua in organizing

**4** joint drills

Ling Yang Zuo, Shi Zi Zuo and Yuan Zhang Hu

were awarded as **Model Ship** in the Tianjin Maritime Search and Rescue Exercise and the Exercise against Navigation Safety Risks in Offshore Oil Platform Waters

## Build a Safety Culture

Safety is of paramount importance. In 2021, we intensified our efforts under the three-year action plan on work safety. By promoting a distinctive safety culture and strengthening work safety education, we have created an atmosphere where every employee cares and works to ensure work safety.



### Carrying out safety-themed activities

We carry out special activities such as "work safety month" and "investigation and remediation of hazardous chemicals" to remove risks and help improve safety management.



### Strengthening work safety training

We organize employees to study legal documents such as the revised Work Safety Law, and the revised Maritime Traffic Safety Law to improve the management's ability to study, understand, and abide by the laws.

### Case: The "Sunshine Security Inspection" Ship Safety Knowledge Competition

The "Sunshine Security Inspection" Ship Safety Knowledge Competition is organized by Shanghai Pudong Maritime Safety Administration for shipping professionals to ensure that ship management companies in its jurisdiction fulfill their principal responsibilities for ship safety and the crew can effectively perform their duties. It aims to promote exchanges in the industry, share safety practices, and improve safety management. The third session of the Competition concluded in December 2021, during which, the Company won three second prizes and three third prizes for individuals in the category of safety theories and one second prize for team competition. By participating in the Competition, our ship management personnel improved their professional ability, promoted maritime safety culture, and contributed to maritime safety.





# Safeguard A Harmonious Ecosystem

Green transformation for sustainable development has become a global consensus and concerted action of the shipping industry. We play an active role in world energy transportation, following the green trend of the industry. We focus on marine environment protection and emission reduction to build a cleaner and more resilient business ecosystem. Strategic planning and technological innovation enable us to meet the opportunities and challenges of the shipping industry and the market.

## Key Topics

Strengthen green management

Protect marine ecology

Address climate change

Develop green shipping



- Establishing a full-fledged environmental management system to identify and manage environmental impact factors
- Protecting marine ecology and biodiversity through strict management of the discharge of toxic and hazardous substances
- Actively addressing climate change by identifying climate-related risks and opportunities and stepping into low carbon transformation
- Achieving green growth through refining the management of ship energy efficiency, as well as the R&D of green and smart ships



# Strengthen Green Management

In strict compliance with environmental requirements, we have developed scientific plans for medium- and long-term environmental management while improving the environmental management system. With the goal of zero pollution, higher efficiency, and lower emissions in mind, we have been working hard to minimize the negative environmental impact of marine transportation on the ocean, atmosphere, and ports.

## Environmental Compliance

We strictly comply with laws, regulations, and conventions at different levels, including the *Marine Environment Protection Law of the People's Republic of China*, the *International Convention for the Control and Management of Ships' Ballast Water and Sediments*, the *International Convention on the Control of Harmful Anti-fouling Systems on Ships* and the *Regulation on the Prevention and Control of Vessel-induced Pollution to the Marine Environment*. At the same time, we have delved deeper into the environmental requirements of the coastal countries and local authorities to ensure our compliance.

## More Effective Management

We have strengthened environmental management in organizational mechanisms, supervision management, assessment, and evaluation. A group for energy conservation and emission reduction and a management office are established to coordinate and supervise major environmental issues. Captains, Commissars, Chief Engineers, and Chief Officers are jointly responsible for the effective operation of our environmental systems and mechanisms.

We have also formulated an environmental protection plan for 2021-2025. All employees in charge of environmental management are required to sign a liability statement for work safety and environmental protection, the result will be included in their performance review appraisal. This allows our environmental management strategies and plans to be implemented at each level. Meanwhile, we have made arrangements in various areas, including green operations, emission management, environmental awareness training, and industry exchanges. And all these plans are evaluated and updated at least once a year.

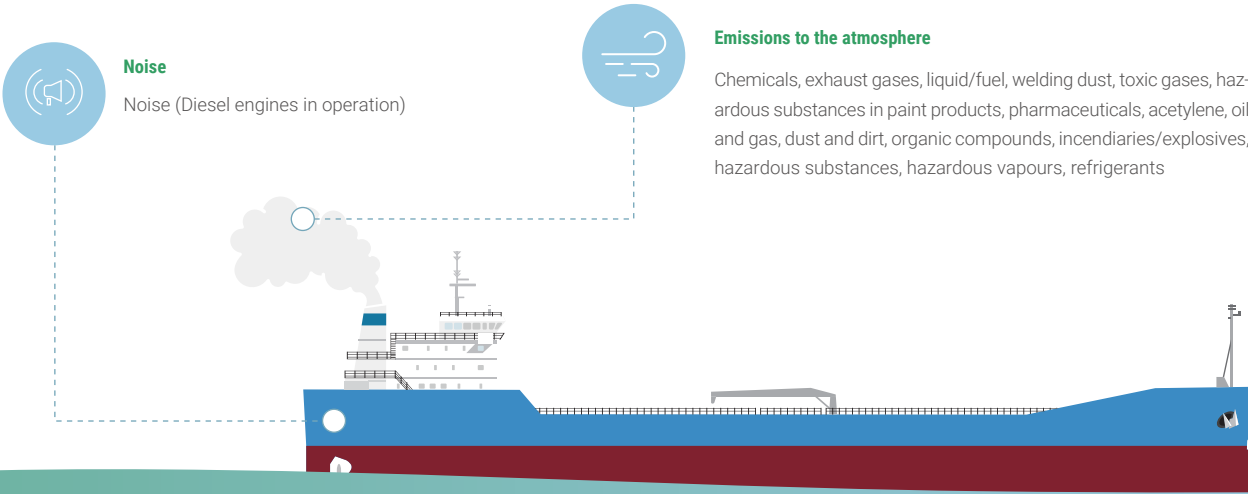
## Management of Important Environmental Factors

We keep improving our ship-shore collaborative environmental management system in line with our environmental factors. We identify and evaluate environmental risks and determine their importance annually, with a special focus on forecasting and monitoring important environmental factors. By expanding the coverage of risk management at different levels and in different areas, we ensure that all environmental risks are under control.



## Relevant environmental management systems

Oil pollutants	Environmental Protection Management Procedures; Tanker Washing; Oil Log Book; Management of Fuel Oil and Lubricating Oil; Shipboard Oil Pollution Contingency Plan; Cargo Operations for Tankers; Ship-to-Ship Operations; Special Emergency Response Plan for Ship Emergencies; Tanker Washing, Purging and Tank Cleaning Operations; Ship Environmental Factor Control
Toxic and hazardous substances	Operations of Cargoes Containing Benzene; Hydrogen Sulphide and Other Toxic Components; Tanker Washing, Management of Fuel Oil and Lubricating Oil; Special Emergency Response Plan for Toxic Liquid Gas Spills; Chemical Ship Cargo Operations Document; Cargo Operations for Tankers; Ship-to-Ship Operations; Tank Washing, Purging and Tank Cleaning Operations; Inert Gas System Operations; Tanker Chemical Ship Anti-Static Operations
Ship waste	Ship Waste Management Plan; Ship Environmental Factor Control; Management of Anti-Pollution Equipment and Devices
Ballast water	Ballast Water Operations for Tankers; Ballast Water Management Plan
Sewage	Sewage Treatment Equipment Operation Record
CO <sub>2</sub> emissions	Ship Energy Efficiency Management; Monitoring, Reporting and Verification of Carbon Dioxide Emissions from EU Ships
Exhaust emissions	VOC Management Plan; Ship Energy Efficiency Management





# Protect Marine Ecology

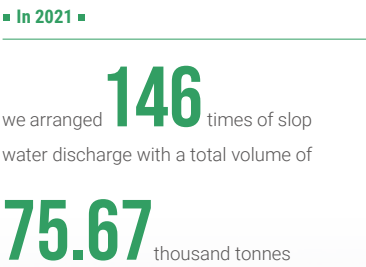
Oceans nurture life, connect the world, and facilitate development. They are thus of vital significance to human society. We highly recognize the necessity of marine ecological protection for the sustainable development of the shipping industry. That's why we strive to avoid the negative impact of shipping activities on the ocean from the start of route planning in order to protect the marine ecology.

## Draft Eco-friendly Routes

In drafting a route, we take into account multiple factors. In addition to factors such as shipping safety, cargo transportation and operation, port condition, we also evaluate the potential impact on marine biodiversity, determining if the route to be designed will overlap with particularly sensitive sea areas (PSSAs), meaning ares with special geographical conditions, ecosystems, biological and non-biological resources, and areas open to special marine requirements. We will maintain a proper distance from the PSSAs as specified by the coastal countries to avoid potential environmental effects.

## Protect Marine Biodiversity

To protect the biodiversity and the beauty of oceans, we identify environmental factors that may have adverse effects on marine ecosystems, genetic resources, and biodiversity in the shipping process, including slop water, sailing noise, and biofouling generated from ballast water operations and tank washing. Targeted management measures will then be carried out.



Ballast Water

Exotic species and pathogens possibly contained in ballast water, if not treated properly, may harm marine biodiversity and ecosystem as well as fishery. Therefore, we regulate crew operations through management systems such as the *Ship Environmental Factor Control*, the *Ballast Water Management Plan*, and the *Ballast Water Operations for Tankers*. Additionally, we have been retrofitting our equipment to enhance our fleet's overall capacity for ballast water treatment.

Slop water, if discharged into the sea improperly, may pose a threat to the growth and reproduction of aquatic life and benthic organisms. With that in mind, we prioritize onshore treatment in accordance with the *Regulation on the Treatment of Slop Water* and entrust qualified third-party suppliers to receive the slop water. In addition, we make a detailed record of all slop water discharges and treat oil spill accidents severely. Overall, our slop water management forms a closed loop, covering operation, discharge, index recording, and performance appraisal.

Slop Water

Noise

The sound environment is essential for marine species and ecosystems; it enables underwater organisms to detect predators, prey, conspecific individuals, and critical habitats. Severe ocean noise causes disruption to navigation and migration, as well as communication between individuals. We take various strong efforts to address underwater noise and make corresponding research, including: 1) providing awareness training for crew members; 2) further regulating the management of ship noise; 3) increasing capital investment on aspects such as shipbuilding, equipment input, and technological improvement to nip noise pollution in the bud; and 4) lowering ship speed when sailing near PSSAs and Marine Protected Areas (MPAs).

Biofouling carried by ships when entering the waters of various countries, which may enable the settlement of invasive aquatic species, will pose a threat to human, animal, plant life, aquatic environment, and even social and economic activities. In response, we have put in place such management systems as *Control of Ship Environmental Factors* and *Biofouling Management Plan* to regulate the operations of our crew members, including antifouling system operations, underwater inspection, cleaning, and maintenance. This will minimize biofouling in ships' submerged surfaces and the internal seawater cooling system, thereby removing a channel for the migration of invasive aquatic species.

Biofouling



Marine Pollution Management

Oil spills, sewage and garbage discharges, toxic and hazardous substance spills, gas pollutant discharges, and scrapped ship disposal can cause irreversible harm to oceans. Thus, while implementing environmental management systems and procedures to the letter, we have proposed our own standards in line with or even stricter than those specified in international conventions. Our aim is to minimize any possible pollution caused by our operations.

Oil Spills

Highly aware of the need to prevent and control oil spills and other marine pollution events, we have formulated the *Special Response Plan for Oil Spills and Environmental Pollution Emergencies*, enhanced safety training and supervision of our crew members. In addition, we require inspection before loading and discharging operation and self-inspection by ship owners, as well as analysis and self-inspection based on similar cases. These measures help us minimize oil spills caused by human errors.

Sewage and Garbage

Based on the *International Convention for the Prevention of Pollution from Ships (MARPOL)*, the *Discharge Standard for Water Pollutants from Ships*, and other conventions and standards, we have made our *Ship Waste Management Plan*. It proposes that ships reduce waste generation from the source, promote waste recycling, and select equipments with low waste discharge rates. In addition, we make a detailed record of sewage and garbage to reduce the discharge of non-hazardous waste year by year. We prioritize onshore treatment and entrust qualified third-party suppliers to receive sewage and waste so that they will not be discharged directly into the sea.

Toxic and Hazardous Substances

We have strengthened the monitoring and control to further regulate the management procedures for paint operations. We also prohibit unauthorized paint operations in restricted areas to reduce the discharge of hazardous substances from paints and chemicals used during navigation and maintenance.

VOCs and Other Air Pollutants

To reduce pollution from volatile organic compounds (VOCs), we have the *VOC Management Plan* and use the cargo vapor collection system to collect VOCs during the unloading process. To avoid exhaust leaks due to improper operation, we regulate system and equipment maintenance, overhaul, treatment, and other procedures in accordance with our regulations, such as the *Anti-Pollution Equipment* and the *Material Management* and the *Technical Safety Operation*, etc. At the same time, we replace old devices or consumables with eco-friendly ones to reduce environment pollution.

Scrapped Ships

Scrapped ships, when being dismantled, may still lead to the discharge of hazardous substances, such as asbestos, petrochemical by-products, lead, mercury, and heavy metals. This is why we follow the non-mandatory *Industry Code of Practice on Ship Recycling*, provide the shipyard with a complete *list of hazardous substances* and assist the shipyard in discharging potentially harmful liquid from the ship. What we want is to reduce the negative environmental impact throughout the lifecycle of our ships.

■ In 2021 ■

we targeted to reduce **3** % of hazardous waste every year

our ships discharged **10,767.16** tonnes of hazardous waste

**22.75** % lower than that in 2020

our ships discharged **607.40** tonnes of non-hazardous waste (garbage)

**202** sewage discharge arrangements were made

total sewage discharge volume was **1,895.81** m<sup>3</sup>

the unit turnover emission of CO<sub>2</sub> of our ships was **7.27** kg/1,000 tonne-miles

**3.58** % lower than in 2020

the unit turnover emission of NO<sub>x</sub> was **0.17** kg/1,000 tonne-miles

**5.56** % lower than in 2020

and the unit turnover emission of SO<sub>x</sub> was **0.02** kg/1,000 tonne-miles



Address Climate Change

Climate change has become highly concerned by the shipping industry. The Fourth IMO Greenhouse Gas Study 2020 predicted that the proportion of GHG emissions from the shipping industry would rise further as global trade continues to recover and grow. Reducing emissions from the shipping industry is thus of vital importance for achieving climate change-related SDGs. Meanwhile, as China has pledged to peak carbon dioxide emissions by 2030 and achieve carbon neutrality by 2060, it has become all the more important to decarbonize energy, transportation, and other sectors.

We understand that climate change means both risks and opportunities for our energy transportation business. To mitigate and adapt to the impact of climate change on our business, we take the initiative to understand the impact of this issue, manage relevant risks at the business level, and optimize our energy resources efficiency.

Climate Change: Risks and Opportunities

Based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we leverage scientific, publicly available climate change scenarios provided by authoritative bodies such as the United Nations Intergovernmental Panel on Climate Change (IPCC) to 1) distinguish between links in our value chain; 2) identify climate change-related risks and opportunities and their potential financial impact in the short, medium and Long term; and ultimately 3) 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	<div><div>Risk</div><div>China's decarbonization policies</div><div>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, local, and industrial levels under the "1+N" framework</div></div>	Upstream Operations Downstream	- Increase in operating costs - Decrease in revenue		Mid-term Long-term
	<div><div>Risk</div><div>Mandatory requirements for carbon emissions control in the shipping industry</div><div>The IMO requires a reduction in carbon intensity (i.e., CO<sub>2</sub> emissions per transport work) of international shipping by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008</div></div>	Upstream Operations Downstream	- Increase in operating costs - Impairment on fixed assets		Mid-term Long-term
	<div><div>Risk</div><div>Mandatory requirements for ship energy efficiency management IMO MARPOL</div><div>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, 2023) as the draft amendments to IMO MARPOL Annex VI come into force</div></div>	Upstream Operations	- Increase in operating costs - Impairment on fixed assets - Increase in supply chain costs		Short-term Mid-term
	<div><div>Risk</div><div>Mandatory requirements for control of air pollution from ships</div><div>In addition to Europe and the United States, China, South Korea, and other Asian countries have strengthened sulfur control. Starting from January 1, 2022, vessels entering Hainan Waters within the coastal emission control areas (ECA) should use fuel with a maximum sulfur content of 0.1%<sub>m/m</sub></div></div>	Upstream Operations	- Increase in operating costs		Short-term Mid-term
	<div><div>Risk</div><div>Carbon pricing and trading</div><div>In 2021, China's national carbon market officially started trading;EU will include shipping in the EU Emissions Trading System (ETS) from January 1, 2023, when shipowners will be required to buy permits covering all their emissions inside the EU</div></div>	Upstream Operations Downstream	- Increase in operating costs - Decrease in revenue		Short-term Mid-term

Type	Description	Links to be affected	Potential financial impact	- / +	Period
Technical risks	<div><div>Risk</div><div>R&amp;D of new ships</div><div>IMO and its Energy Efficiency Design Index (EEDI) require shipowners to invest in the R&amp;D of new and more energy-efficient ships</div></div>	Operations	- Increase in R&D costs - Increase in operating costs		Short-term Mid-term
	<div><div>Risk</div><div>Development of energy conservation and emission reduction technologies</div><div>The shipping industry is calling for energy-efficient devices and drag reduction technologies</div></div>	Upstream Operations	- Increase in R&D and retrofit costs - Increase in operating costs		Short-term Mid-term
Market risks	<div><div>Risk</div><div>Drop in demand for crude oil transportation</div><div>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</div></div>	Upstream Downstream	- Decrease in revenue		Mid-term Long-term
	<div><div>Risk</div><div>Depreciation of conventional oil tankers</div><div>Fossil energy-related assets, such as traditional oil tankers, are at risk of depreciation</div></div>	Operations	- Impairment on fixed assets		Mid-term Long-term
	<div><div>Risk</div><div>Higher threshold for regional market access</div><div>More stringent environmental requirements of Europe, Asia, and the U.S. form a higher threshold for market access</div></div>	Operations	- Decrease in revenue		Short-term Mid-term
	<div><div>Risk</div><div>Change in consumer behavior</div><div>Customers may prefer energy transport services with zero or fewer carbon emissions (e.g., carbon neutrality in oil transport)</div></div>	Operations Downstream	- Increase in operating costs - Decrease in revenue		Mid-term Long-term
	<div><div>Risk</div><div>Fuel oil costs</div><div>Fuel oil prices increase as a result of higher crude oil carbon tax costs and the application of clean fuel technologies</div></div>	Upstream Operations	- Increase in operating costs - Decrease in revenue		Mid-term
Reputational risks	<div><div>Risk</div><div>Wider application of clean energy</div><div>More clean energy, which costs more than conventional fuels, will be used in the shipping industry</div></div>	Upstream Operations	- Increase in operating costs - Decrease in revenue		Mid-term Long-term
	<div><div>Risk</div><div>Carbon information Disclosure</div><div>Regulators, investors, customers, and other stakeholders have put forward more demanding requirements for climate-related information disclosure and management in the shipping industry</div></div>	Upstream Operations Downstream	- Decrease in revenue - Increase in operating costs - Decrease in available capital		Mid-term Long-term
	<div><div>Risk</div><div>Damage to industry/enterprise reputation</div><div>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</div></div>	Upstream Operations Downstream	- Decrease in revenue - Increase in human resource cost - Decrease in available capital		Mid-term Long-term
Acute risks	<div><div>Risk</div><div>Extreme weather events and resultant damage</div><div>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</div></div>	Upstream Operations Downstream	- Increase in maintenance costs - Increase in insurance costs		Long-term
	<div><div>Risk</div><div>Extreme weather-induced transportation difficulties</div><div>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</div></div>	Upstream Operations Downstream	- Decrease in revenue - Increase in default costs		Mid-term Long-term
Chronic risks	<div><div>Risk</div><div>Effects of extreme weather on human health</div><div>Excessively hot or cold weather, which could upset crew members, is detrimental to ship operations, human health, and work efficiency.</div></div>	Operations	- Increase in human resource costs - Decrease in revenue		Mid-term Long-term
	<div><div>Risk</div><div>Rise of average temperatures and sea level and change in extreme wind speeds</div><div>Extreme wind speed changes, temperature, sea-level rise, and other long-term environmental 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</div></div>	Upstream Operations	- Increase in operating costs - Increase in default costs		Long-term



Climate change-related opportunities					
Type	Description ●	Links to be affected	Potential financial impact -/+	Period	
Resource efficiency	<ul style="list-style-type: none"><li>● <b>Ship energy efficiency management</b></li></ul> Ship energy-saving retrofit, Ship Energy Efficiency Management Plan (SEEMP), and other measures will help improve ship energy efficiency, reduce resource consumption, and control emissions	Operations	+ Decrease in operating costs	Short-term Mid-term	
	<ul style="list-style-type: none"><li>● <b>Use of energy with lower emissions</b></li></ul> The use of clean fuels such as liquefied natural gas (LNG) as an alternative ship fuel enables us to provide low-carbon transport services	Upstream Operations	+ Decrease in operating costs + Increase in revenue + Increase in available capital	Mid-term Long-term	
Products and services	<ul style="list-style-type: none"><li>● <b>High-tech ships, dual fuel VLCC, and other competitive products and services</b></li></ul> 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	Mid-term Long-term	
	<ul style="list-style-type: none"><li>● <b>Investment in CCUS technologies</b></li></ul> We invest in carbon capture, use, and storage (CCUS) technologies and participate in future carbon market trading	Operations	+ Decrease in operating costs + Management of corporate carbon assets + Increase in revenue + Increase in available capital	Mid-term Long-term	
Market	<ul style="list-style-type: none"><li>● <b>LNG transportation demand</b></li></ul> Growing demand for LNG transportation and consistently high LNG freight rates have contributed to sustained growth in the business volume and profit of LNG transportation, boosting our counter-cyclical capacity	Upstream Operations Downstream	+ Increase in revenue + Increase in investment income	Mid-term Long-term	
	<ul style="list-style-type: none"><li>● <b>Crude oil transportation demand</b></li></ul> 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	Mid-term Long-term	
	<ul style="list-style-type: none"><li>● <b>Chartering Preference of Cargo Owners</b></li></ul> 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	Mid-term Long-term	
Adaptability	<ul style="list-style-type: none"><li>● <b>Investment in clean energy projects and resource substitution/diversification</b></li></ul> In response to the trend of the energy transition, we focus on the LNG transportation business and invest in LNG vessels	Upstream Operations	+ Increase in revenue + Maintenance and appreciation of asset values	Mid-term Long-term	
	<ul style="list-style-type: none"><li>● <b>New route selection</b></li></ul> The Arctic may become a new choice due to climate change and the melting of glaciers	Upstream Operations	+ Decrease in operating costs	Mid-term Long-term	
	<ul style="list-style-type: none"><li>● <b>Supply chain resilience and adaptability</b></li></ul> 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 + Decrease in operating costs	Mid-term Long-term	

\*Note: In line with the IPCC scenarios RCP2.6, RCP4.5, 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.

## Towards Clean and Low-carbon Growth

Following the industry trends, we respond actively to IMO’s initial strategy for the reduction of GHG emissions from international shipping. In strict compliance with the requirements of international conventions and domestic laws and regulations, such as the International Maritime Organization (IMO)’s *Data Collection System for Fuel Oil Consumption of Ships* and the EU Regulation on monitoring, reporting, and verification (MRV) of CO<sub>2</sub> emissions from maritime transport, we review our environmental management targets and management process year by year. Besides, we pursue low-carbon growth through the following measures: 1) developing energy-efficient and environmentally-friendly technologies; 2) working faster towards plans for the carbon management and fuel transition of new and existing ships; and 3) cooperating with other industry players to advance green technologies and improve energy and resource efficiency. These are how we contribute to the IMO’s goal of reducing GHG emissions from shipping by at least 50% by 2050 compared to the 2008 level.

In 2021, we established and improved the mechanisms for carbon data collection, verification, monitoring and management, and submitted our carbon emission data from ships to IMO and the European Union. In response to COSCO SHIPPING’s deployment on carbon footprint data collection, we regularly filled in data on energy consumption. And we accomplished the 2020 carbon emission report, the emission testing plan for water transport enterprises, and the energy utilization report of key enterprises in the waterborne passenger and freight transport sector in Shanghai.





## Develop Green Shipping

In response to climate change, we actively innovated green technologies to improve ship energy efficiency management. In collaboration with other industry partners, we participated in new topics and projects and developed new models and technologies, striving to lead the development of a new generation of ships.

### Green Technology Innovation

In response to China's 30-60 Decarbonization Goal (China strives to peak carbon dioxide emissions by 2030 and achieve carbon neutrality by 2060), we are exploring ways to reduce carbon emissions. We have increased investment to develop green technologies and study the possibilities of alternative fuel use. Additionally, the technology reserves of our shipbuilding partners help us better contribute to the commercialization of zero-carbon vessels.



#### Green and smart ships

In response to IMO's requirements for GHG emission reduction, we closely follow the developments of new ship types, new technologies, and new energy and get deeply involved in the research of green and smart ships.



#### High-tech ships

We participated in two national high-tech ship projects of the Ministry of Industry and Information Technology, namely corrosion-resistant steel and EEDI Phase III, to make breakthroughs in key technologies, improving the ability of our ships to save energy and protect the environment.



#### Zero-carbon alternative fuel

We maintain our focus on low-carbon fuel technologies, advance the development of ammonia and methanol fuel and research other alternative energy to make our power system cleaner.

### Case: Alternative fuels, a solution to zero-carbon ships

Keeping abreast of the industry trend towards low-carbon growth, we cooperated with Marine Design & Research Institute and CSSC's Dalian Shipbuilding Industry Co., Ltd. to jointly develop zero-carbon alternative fuel ships. In 2021, we participated in the conceptual design of an ammonia-fueled VLCC, which received the Approval in Principle (AIP) from both the American Bureau of Shipping (ABS) and the China Classification Society (CCS). Our new conceptual design of a methanol-fueled VLCC also obtained the AIP by both the Det Norske Veritas (DNV) and CCS in February 2022. Going forward, we will continue to work towards our decarbonization goal by reducing the carbon intensity of our ship fuels throughout their lifecycle.



AIP Certification for Concept Design of Methanol-fueled VLCC

### Build a Green Fleet

Throughout the entire lifecycle ranging from design to construction, operations, and scrapping, we leverage green technologies and management optimization to minimize energy and resource consumption, as well as the emission of toxic and hazardous substances and GHGs. By building an energy-efficient and environment-friendly fleet, we contribute to a decarbonizing shipping industry while making ourselves more competitive. In addition, we do not use naturally extracted water in any of our business activities. So we are never in want of suitable water sources.

#### Ship efficiency management

We have developed and continuously optimized our ship energy efficiency management plan, and advance the management in areas such as speed reduction, route optimization, energy-efficient retrofit. In 2021, we effectively reduced unit fuel consumption through rational ship operations through various approaches such as leveraging wind and currency direction.

We are strengthening the collection and monitoring of emission data, developing speed and fuel consumption models, and empowering energy efficiency management with the establishment of smart operation scenarios.

#### Green transformation of fleet

We kept investing in the R&D and application of energy-efficient and environmentally-friendly vessels to upgrade our fleet. We have successfully ordered and taken the world's first LNG dual-fuel VLCC.

#### Environmental awareness training

We raise our crew members' awareness of energy conservation and emission through publicity, education, and training and take strict measures to save energy and reduce emissions. We also regularly publicize the latest green technologies and environmental requirements for better implementation of ship-shore environmental conventions.

#### In 2021

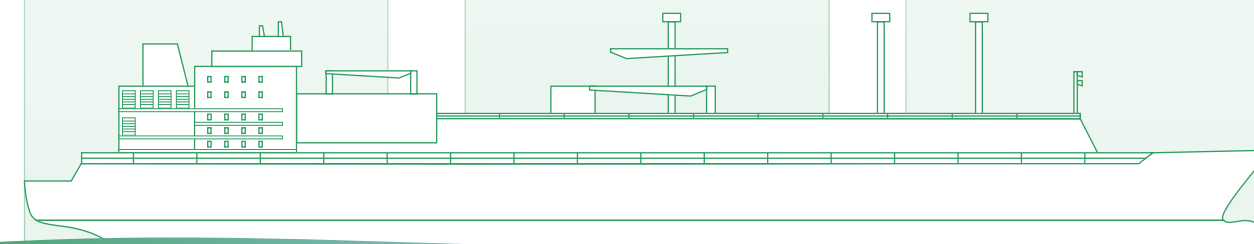
Unit fuel consumption target of COSCO SHIPPING

Energy for 2021 was **2.03** kg/1,000 tonne-miles

#### As of the end of 2021

Unit fuel consumption of COSCO SHIPPING Energy

was **2.06** kg/1,000 tonne-miles





## Case: Green ships, the key to energy efficiency management

The world's first LNG dual-fuel VLCC MT YUAN RUI YANG was delivered on 28th Feb 2022. Her EEDI is about 36% lower than the baseline value. The ship meets the requirements of the third stage of ship energy efficiency design index EEDI, and its nitrogen oxide emission meets the most stringent Tier III requirements of the IMO. Its structural design meets the Harmonized Common Structural Rules, provides a list of hazardous substances in accordance with EU regulations and meets CCS's smart energy efficiency symbol i-Ship (E) requirements. Therefore, it marks a breakthrough in the application of green technologies for large oil tankers. As a green shipbuilding project, MT YUAN RUI YANG was approved for a green loan that contributes to carbon peak and carbon neutrality in accordance with China's *Green Industry Guidance Catalogue (2019 Edition)* and our energy efficiency management initiative was supported by green finance.

## Green Collaboration with the Industry

To build the green and low-carbon value chain, we are working with our value chain partners for a higher quality transport model featuring cross-industry cooperation and emission reduction throughout the whole transportation process.

## Case: China's first full-lifecycle carbon-neutral oil cargo get certified

In September 2021, the certification ceremony of China's first voyage of full lifecycle cycle carbon-neutral oil was held in Shanghai. COSCO SHIPPING, along with Sinopec and China Eastern Airlines, was awarded China's first carbon-neutral oil certification issued by the Shanghai Environment and Energy Exchange (SEEE). Together, we gave full play of our respective advantages, exploring a cross-industry path with full lifecycle coverage and zero carbon emission. It is a milestone to reach the goals of carbon peak and carbon neutrality in China's transportation and energy sectors.

In order to offset the carbon emission in the full lifecycle of oil, the three companies purchased the Chinese Certified Emission Reduction (CCER) and employed SEEE as the certification authority of the carbon neutrality projects, including the Carbon Sink Afforestation Project in Fenglin Town of Jiangxi Province and the Rural Household Methane Project in Zaoyang City of Hubei Province. Through these projects, we promoted agricultural and forestry planting and low-carbon green energy in remote areas. Our delivery of China's first carbon-neutral crude oil cargo has set a benchmark for voluntary emission reduction and green development within the industry.

## Expand Our Green Footprint

We are an advocate for both green operations and green lifestyles. That's why we regulate the environmental behavior of our people in their daily office activities: we want to enhance their environmental awareness and engage them in the protection of our planet.



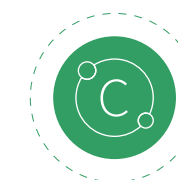
### Saving water & electricity

- Purchase energy-efficient office equipment (e.g., LED lights)
- Post conservation signs in the workplace
- Regularly inspect power use



### Reducing operational carbon footprint

- Advocate low-carbon travel
- Go paperless at work
- Recycle fluorescent tubes, batteries, and other recyclable waste
- Keep a record of hazardous waste recovery and treatment



### Environmental awareness campaigns

- Conduct a public environmental survey on June 5 (World Environment Day)
- Distribute environmental awareness brochures to the public
- Organize environmental awareness training and public welfare activities for our employees





# Grow Together with Employees

Talented employees are key to our sustainable development. COSCO SHIPPING Energy hopes to provide employees with a level playing field, a safe workplace, adequate social security, and better career prospects and work with them toward a sustainable future.

## Key Topics

- Ensure decent work
- Facilitate employee growth
- Care for employees
- Protect employee health



- Sticking to equal employment, improving the employment system, salaries, and benefits, and respecting and protecting employee rights
- Expanding the employee development platform, improving the training system, and ensuring fair internal promotion
- Creating a diversified and inclusive workplace and responding to employee demands
- Caring for the physical and mental health of employees and stimulating their potential



# Ensure Decent Work

In strict accordance with laws and regulations, we stick to equal employment, improve the employment system, salaries, and benefits, facilitate internal communication, and strive to create an equitable and healthy workplace. We also respect and protect the basic rights of employees to the greatest extent and ensure decent work and all-round development of employees.

## Safeguard Rights and Interests

We abide by labor laws and regulations and fulfill our obligations specified in the labor contract. We have formulated comprehensive employment policies such as the *Employee Management Measures* and the *Administrative Regulations on the Recruitment of Shore-based Staff*. We also put in place reasonable regulations on employee remuneration, procedures for recruitment and termination of labor contracts, promotion conditions and channels, holidays and working hours, employee benefits, anti-discrimination and anti-harassment in accordance with the law to effectively protect employee rights.

We have signed the *Crew Management Service Agreement* with the COSCO SHIPPING Seafarer Management and in accordance with the 2006 *International Labor Organization's Maritime Labor Convention*, clarified each party's responsibilities in labor protection, occupational health, and accident handling before and after boarding.

We maintain an equal, respectful, diverse, and inclusive working environment and provide employees with equal employment opportunities and job security. We forbid forced labor and child labor in any form and strictly vet the identity of recruited employees to ensure that their age and educational background are authentic and meet requirements.

### In 2021

the total number of employees reached

764

including 71 new hires

0 new hires overseas

and 1 employee with a disability

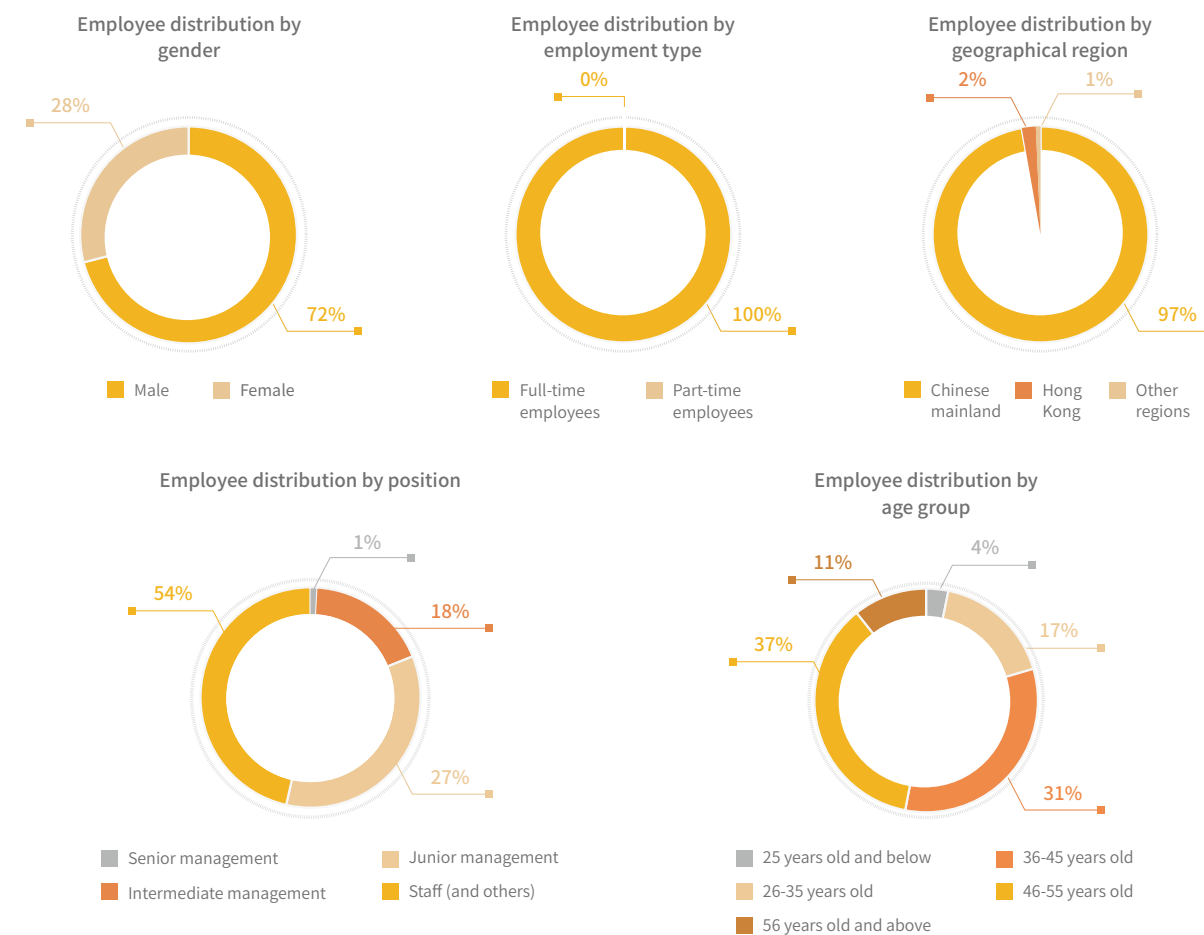
The labor contract coverage rate, the social insurance coverage rate, and the physical examination

coverage rate were all 100%

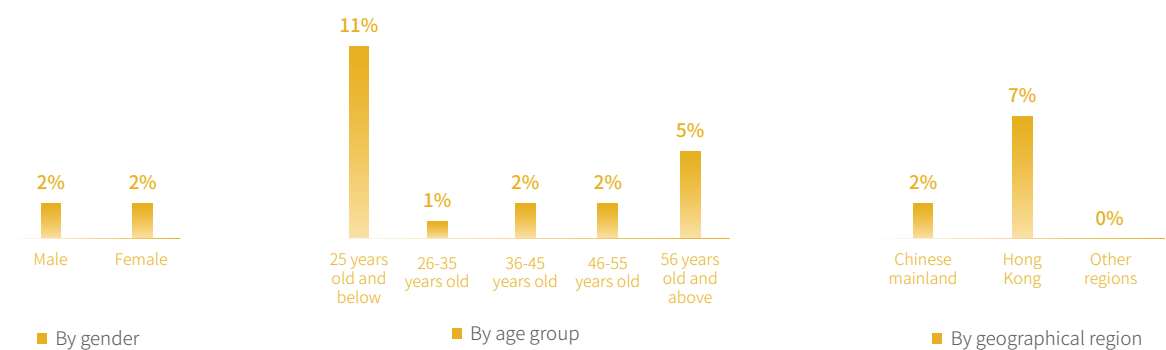
80% of female employees have returned to work after maternity leave

Paid leaves averaged 11.12 days

### Percentage of employees distribution by gender, employment type, region, position, and age, in 2021



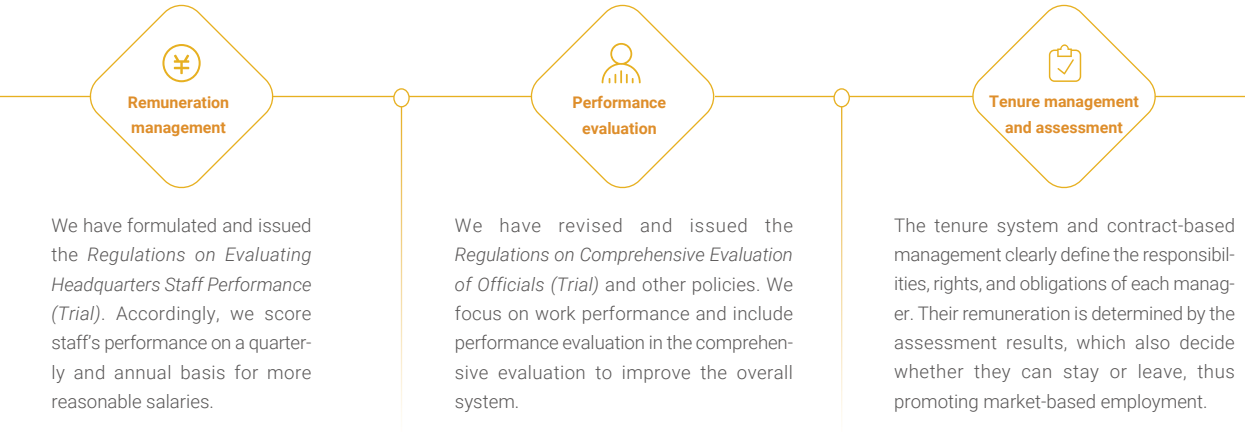
### Employee turnovers by gender, age group, and region in 2021





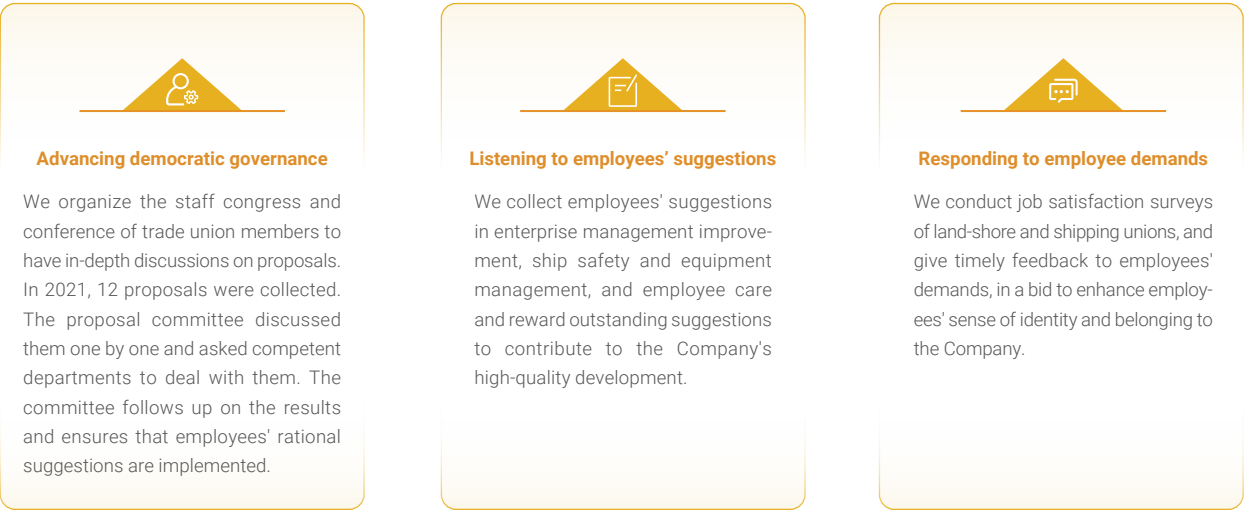
Provide Incentives

We continue to optimize employee salary management. We promote salary management, performance evaluation, and tenure management, deepen the reform of income distribution and market-based recruitment and employment system, and see that salaries match positions and performance to motivate employees.



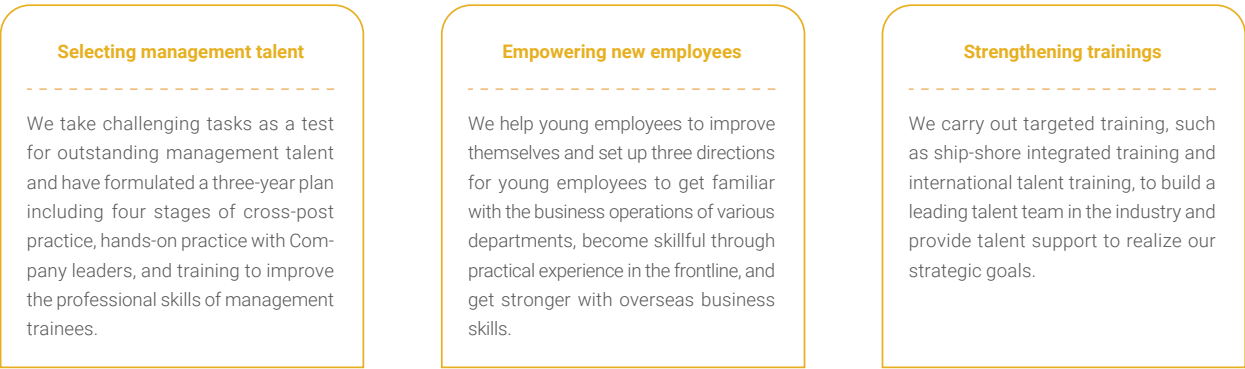
Engage in Corporate Management

We facilitate two-way communication by setting up employee suggestion boxes and listening to their reasonable suggestions on corporate development. We promote information disclosure on drydocking and ship management, protect the rights of employees to know and participate, and improve democratic management.



Facilitate Employee Growth

The development of employees is high on our agenda. To this end, we provide unimpeded career promotion channels and organize various forms of training and vocational skill competitions for the management, young cadres, new hires, and crew members, etc. We also upgrade the "5 plus N" training system and step up the screening, appointment, and training of promising employees to provide strong support for their development.



Equal attention is paid to crew team building. We scientifically evaluate the comprehensive capabilities of captains and deck officers of the entire fleet, formulate annual ship training plans, and organize online and offline training for crew members on an ongoing basis. The training covers safety risk prevention, emergency operations, environmental protection, the rule of law, business ethics, and language skills. We also strengthen crew evaluations to improve their skills and help them grow together with the Company.

■ The training coverage rate and the per capita training hours in 2021(by the management level and by gender) ■





## Care about Employees

We upgrade the action program of "caring about crew members and ships" every year, advocate work-life balance, listen to employees' opinions, respond to their demands, and deliver substantial benefits.



### COVID-19 prevention packages

Based on the quarantine requirements, we have visited more than 450 isolated crew members and distributed 54 packages of daily necessities.

### Enriching the life of the crew

We equip our ships with cultural and sports equipment, including more than 700 pieces of various cultural and sports supplies, more than 30 sets of treadmills, karaoke machines, projectors, and other equipment, allowing the crew to enjoy a more colorful life.



### Caring about special groups

On traditional holidays such as the Spring Festival and Mid-Autumn Festival, we send care to model workers, retirees, employees in difficulty, and front-line employees.

■ In 2021 ■

we paid **421** sympathy visits to employees and crew members who were critically sick or in financial need

paid **91** visits to vessels and granted subsidies of RMB

**964,100**

extended-service subsidies

of RMB **10.71** million were issued to

**1,952** seafarers

## Protect Employee Health

Putting employees first, we build a healthy environment, promote healthy lifestyles, optimize health services, and improve health protection. To protect employees' health in all respects and throughout the lifecycle, we advance the health action plan. In 2021, focusing on the three central tasks of "health check-up, health training, and health maintenance," we improved the employee health management system.

### Paying attention to health



We conduct health surveys on employees from multiple dimensions such as mental health, exercise, diet, and physical health, provide health checkups, and carry out health training based on the survey results.

### Developing culture and sports associations



Under effective COVID-19 response, we organize cultural and sports activities to meet the needs of employees. 11 cultural and sports associations have been set up for table tennis, painting, calligraphy, photography, dance, aerobics, and jogging.

### Organizing brisk walking



To improve the physical conditions of the crew, unite and motivate them, each ship carries out a brisk walking activity of 25,000 kilometers to encourage a positive and healthy lifestyle.

■ In 2021 ■

the sports and culture club held **837** activities

which attracted **6,165** participants

### Case: First aid training for employees

On April 20, 2021, COSCO SHIPPING Energy invited a senior lecturer certified by the American Heart Association to train our employees on basic first aid skills, including CPR and first aid for airway obstruction, burns, and other medical conditions. The lecturer demonstrated in detail how to do CPR and airway obstruction first aid and instructed the trainees in groups, imparting first aid knowledge to employees attending in-person and online, which might save them in critical situations.



# Improve People's Lives through Shared Benefits

A harmonious society will enable the sustainable development of companies. We grow in line with socio-economic development, believing that a company and the community where it operates should be mutually-reinforcing. As such, we devote ourselves to the national cause of rural vitalization and strengthen the management of public welfare investment. With the Regulations on Donation Management in place, we practice social accountability in our unique way. And we combine commercial ecology and social ecology through public welfare programs.

Key Topics

»

Contribute to rural vitalization

Provide emergency rescue

Engage in charity



- Bring benefits to the public and promote happiness for rural residents
- Organizing prompt, orderly and efficient emergency responses to maritime emergencies
- Making continued contribution to charity



# Contribute to Rural Vitalization

We work with local residents on local priorities to foster a thriving economic development and support the rural vitalization. Based on our business resources, we have continued our efforts in poverty elimination, establishing a monitoring mechanism to prevent local residents from relapsing into poverty. In different villages, we explore various resources and channels to promote local economic growth. At the same time, we propel management staff to engage in rural development programs, and provide talents' support for community building to invigorate local development.

## Supporting rural economic growth

To help regional industry with distinctive advantages to grow, we leverage the local village cooperative to sell agricultural and sideline products from Yongde County of Yunnan Province to a larger market through smoother logistics and transportation, achieving an annual sales income of about RMB 655,000.

## Contributing to healthcare improvement

We are constantly contributing to improving healthcare services and infrastructure in rural areas.

We invested RMB 2 million in the renovation and equipment construction of Yanxi Township Health Center in an effort to give 50,000 local residents easier access to medical treatment.

## Empowering rural talent

We organized exchange and training activities for 125 rural professionals and invested RMB 2.55 million to buy insulated cups and hot bathing facilities for nearly 15,000 students in Anhua County, Hunan Province.

## Improving the living environment

We injected RMB 3.4 million into safe drinking water projects in seven villages and a drinking water renovation project at a water plant to enable water collection and use for local residents; another RMB 2.55 million went to the repair of village roads. In 2021, Yongde County was recommended as the National Health County by Yunnan Provincial Health Office.



Education aid projects in rural areas



Management staff in the village

## Case: Boosting the consumption of products from poor areas

Yongde County is known for its pig production. However, its meat processing approach is weak due to the underdeveloped economy and disadvantaged location, limiting its sales mode to selling live pigs. And because of that reason, the county was at the bottom of the industrial chain. We promoted the cooperation between the Company, local farmers, and the village cooperative where our management staff was stationed. By forming an entire pork processing industry chain, we helped farmers to expand sales channels and thus increase their income. In 2021, we assisted the county by purchasing 2,990 kilograms of pork products and helping it sell another 1,200 kilograms.

### In 2021

we invested a total of RMB **20** million in **6** projects for rural vitalization, benefiting around **76** thousand residents

# Provide Emergency Rescue

We actively work with local search and rescue centers and maritime authorities to support the rescue of people and ships in distress at sea.

## Case: MT SHAN HU ZUO assists in rescuing Vietnamese vessel in distress

On July 7, 2021, Our Mt. SHANHUZUO received a VHF distress call from the Vietnamese cargo ship "Fushun 36" and immediately reported to the captain. The captain made a quick and precise deployment and reported the situation to the Company. On the instructions from the Maritime Search and Rescue Coordination Center and the Company, our well-trained crew swiftly prepared all kinds of rescue equipment and sailed to where the ship was in distress, providing on-site information and rescue suggestions. The professionalism and efficient execution of our crew members in this 4-hour rescue were highly affirmed by maritime authorities.

## Case: Coming swiftly to the rescue of person in distress

On August 21, 2021, while sailing in Zhoushan sea, Mt. DACHI found someone calling for help on a small inflatable dinghy on the left front of the ship. The captain immediately reported the situation to the Company and Zhoushan Traffic Control Center. Under the command of the Company and the Zhoushan Search and Rescue Centre, the crew members of Mt. DACHI successfully rescued the person on the dinghy.





## Engage in Charity

Aiming to grow and prosper with the community where we operate, we commit ourselves to understanding and meeting the needs of community members and share the development benefits with the society.

### Case: Exploring new mode of public welfare to light up hope

In 2021, our Legal and Risk Management Department and Wintell & Co carried out exchange activities as part of our assistance to Dream Coffee, the first employment base for youth with mental disabilities in Shanghai. We hope each human could play their part in the progress of social development, earn respect through work, and bring more positive energy to people around them.



Employees make coffee for volunteers at Dream Coffee

### Case: Working to safeguard beautiful coastline

In September 2021, employees from our branch in Hong Kong and UNIPPEC Asia jointly participated in the "Beach Clean-up" event co-organized by UNIPPEC Asia, Sinopec companies in Hong Kong, and local charitable organizations. Through collecting garbage and cleaning up the beach, we restored the beach of To Tau Wan Village to its original beauty.

*"May the sea continue to show its beautiful blue color, and the beach show how clean it can be. We must take action to care for the sea and protect the beach."*

-- A volunteer in this event



"Beach Clean-up" event

## Outlook

### Innovation

#### Enabling Smart Shipping with Digital Technologies

In the pursuit of development driven and empowered by digital technologies, we will enhance cooperation with upstream and downstream players in smart decision-making, smart operation, smart ship management, and customer service. Through technological innovation, we will foster new growth drivers with the help of information technology, thus to drive the high-quality development of our brand, provide customers with better digital services and gradually build our digital capabilities that match our status as an outstanding leader in global energy transportation.

### Safety

#### Putting Life and Safety First

We will continue to improve the safety management system, strictly implement work safety responsibilities, and intensify our efforts under the three-year action plan for the remediation of safety hazards. We will probe into the common problems and prominent hazards concerning work safety, institutionalize and promote good practices, and establish a long-term safety mechanism. We will organize activities to study and publicize laws and regulations governing work safety and create a strong safety-minded atmosphere.

### Environment

#### Promoting Green Shipping and Low-carbon Development

We will actively analyze the path to carbon peaking and carbon neutrality and promote the transformation of the energy shipping industry. We will closely follow the latest development of green and intelligent ship technology, and advance the R&D of new energy technologies such as LNG, biofuel, and ammonia energy and upgrade ship energy-saving technologies. The full-lifecycle environmental management of ships will be enhanced, and ship pollutant discharge will be strictly managed to protect the marine environment effectively.

### Employees

#### Caring for Employees and Putting Them First

We will continue to optimize the employee training mechanism and build a training system to empower employees. We will step up the selection of outstanding employees, unblock career development channels, address real-life concerns of employees, and help them achieve work-life balance to grow with the Company and benefit more from corporate development.

### Community Service

#### Serving and Giving Back to Society

We will vigorously advance rural vitalization, support the development of poverty-stricken areas and vulnerable groups, and share equal development opportunities. We will also give full play to our expertise and perform maritime rescue missions with a strong sense of responsibility and mission. We will continue to organize volunteer service activities to create a better and more harmonious society.



HKEX ESG Indices Guidance

Environmental				
Aspects	KPIs Number	Information	Page	Explanation
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.	P41 P44-46 P49	
	A1.1	The types of emissions and respective emissions data.	P10	
	A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P10-11	
	A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P10	
	A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P10	
	A1.5	Description of emission target(s) set and steps taken to achieve them.	P46-49	
	A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	P42-45	
A2:Use of Resources	General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	P43-45 P50	
	A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in'000s) and intensity (e.g. per unit of production volume, per facility).	P10-11	
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P11	
	A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	P50-52	
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.		Not applicable
	A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.		Not applicable
A3:The Environment and Natural Resources	General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	P40	
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P40-53	
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.	P46-49	
	A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	P6-7 P46-53	

Social				
Aspects	KPIs Number	Information	Page	Explanation
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.	P56	
	B1.1	Total workforce by gender, employment type (for example, full- or parttime), age group and geographical region.	P57	
	B1.2	Employee turnover rate by gender, age group and geographical region.	P57	
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.	P34-35	
	B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	P11	
	B2.2	Lost days due to work injury.	P11	
	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	P32-37 P60-61	
B3:Development and Training	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	P59	
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P59	
	B3.2	The average training hours completed per employee by gender and employee category.	P59	
B4:Labour Standards	General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	P56	
	B4.1	Description of measures to review employment practices to avoid child and forced labour.	P56	
	B4.2	Description of steps taken to eliminate such practices when discovered.		No child or forced labour
B5:Supply Chain Management	General Disclosure	Policies on managing environmental and social risks of the supply chain.	P28-29	
	B5.1	Number of suppliers by geographical region.	P29	
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	P28-29	
	B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	P28	



Social				
Aspects	KPIs Number	Information	Page	Explanation
	B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	P29	
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.	P27	
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.		Not applicable
	B6.2	Number of products and service related complaints received and how they are dealt with.	P27	
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	P15	
	B6.4	Description of quality assurance process and recall procedures.		Not applicable
	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	P27	
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.	P16	
	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	P16	
	B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	P16	
	B7.3	Description of anti-corruption training provided to directors and staff.	P16-17	
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.	P62	
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	P64-66	
	B8.2	Resources contributed (e.g. money or time) to the focus area.	P64-65	

# Reader Feedback

## Dear Readers,

Thanks for reading the *Corporate Social Responsibility Report 2021 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

1. What do you think is the most satisfying aspect in this report?
- 2.What's your advice for our future social responsibility reports?

### Please provide feedback in the following ways:

Board Office, 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