



ZERO-EMISSION SHIPPING REPORT CARD

46.5
100

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The Ship It Zero Report Card grades companies based on the Ship It Zero campaign's three campaign demands, which are End Port Pollution Now, Abandon Dirty Ships, and Put Zero at the Helm. China Ocean Shipping (COSCO) earned a D in ending port pollution; an F in abandoning dirty ships; and an F in putting zero at the helm. Overall, COSCO earned 46.5 / 100 available points, or a D grade, on the Ship It Zero 2023 Report Card for the company's actions to date to end its ocean shipping pollution.

China Ocean Shipping (COSCO Shipping) is a state-owned conglomerate headquartered in Shanghai. It is the 4th-largest maritime shipping company in the world, with a 10.7% total market share. While the company has taken some positive steps to address its pollution at ports, COSCO Shipping has not demonstrated that it is taking urgent and necessary action to reduce its greenhouse gas emissions. COSCO Shipping has committed to using shore power and invested in shore power infrastructure at its terminals. However, it should be noted that the company settled with the California Air Resources Board for \$965,000 in 2019 due to 2,600 air quality violations at California ports from 2014-2017. The company has publicly supported regulatory changes to address port pollution, but has not implemented a comprehensive plan to do so. COSCO Shipping has not invested in offshore charging stations and should pursue more partnerships with ports and carriers for zero-emission infrastructure investment. COSCO Shipping discloses some of its air pollutant emissions and shore power, but should do so more comprehensively.

COSCO Shipping has an extremely weak short-term greenhouse gas emission reduction target of 12% by 2030. While the company has invested in efficiency measures and a short-term biofuels trial, its short-term emission reduction strategies are lacking, even though the company reported an overall reduction in emissions. We found no evidence that the company offers slow steaming for its customers. COSCO Shipping reports its fleet's total CO₂e emissions and fuel use by type, and received credit for this transparency.

Ship It Zero is troubled by COSCO Shipping's continued reliance on Exhaust Gas Cleaning Systems (i.e., "scrubbers"), and points were deducted from the company accordingly.

Scrubbers are installed on vessels to reduce sulfur air emissions resulting from the use of high-sulfur fuel. Most vessels are equipped with scrubbers in order to allow ship operators to continue to use one of the dirtiest fossil fuels on earth, heavy fuel oil. This is a thick, tar-like waste product from the world's oil refineries. It is high in not only sulfur, but also in other dangerous contaminants such as heavy metals. Scrubbers use seawater to "wash" sulfur from the exhaust plume. When sulfur reacts with water, it forms sulfuric acid (this is the reason sulfur oxides air emissions cause acid rain). The scrubber wastewater is acidic, toxin-laden, thermal pollution. It is an entirely voluntary wastestream, as ship operators can choose cleaner, low-sulfur distillate fuel which comply with air emission standards and do not produce water pollution.

Scrubbers either continuously discharge the wastewater directly into the oceans (open-loop) or can hold most of the wastewater onboard (closed-loop). Closed loop systems still discharge waste, referred to as bleed-off. Bleed-off is smaller in volume than the wastewater from open loop operation, but more highly concentrated in toxins. Closed loop systems can be operated in zero-discharge mode, but there is little evidence that ship operators choose this option unless required by law.

COSCO also lost points for the approximately 50 newbuild LNG ships it has on order. LNG is a fossil fuel that is primarily methane, a potent greenhouse gas that has over 80% more heat-trapping power on a 20-year timescale compared to CO₂. A 2020 comparative analysis showed that LNG powered ocean vessels emit 70-82% more climate-disrupting lifecycle greenhouse gases than business-as-usual.

Non-fossil methane gas, so-called "biomethane" or "renewable natural gas" is at times touted as a future "clean" maritime fuel. However, once produced, it is still methane and presents the same climate-warming emissions profile in ship engines as its fossil fuel counterpart.

We urge the company to publicly reject false solutions like liquified natural gas (LNG) and scrubbers. COSCO should also leverage its considerable power within the maritime industry to advocate for strict emission reduction standards and rapid decarbonization within the sector.

COSCO Shipping has a carbon neutrality target of 2060, by far the weakest commitment of the shipping companies covered by this report card and one that is completely out of touch with the current climate reality. This 2060 target is also radically out of alignment with the greenhouse gas reduction strategy agreed by the United Nations International Maritime Organization (IMO) in July 2023. The IMO calls for 30% absolute greenhouse gas reductions by 2030; 80% absolute reductions by 2040; and net-zero by 2050. It not only covers all greenhouse gasses, but evaluates emissions on a lifecycle basis thus taking into account climate disrupting emissions throughout the supply chain from extraction through combustion in ship engines.

While COSCO Shipping seems to understand the need for zero-emission vessels, and has some goals for moving cargo onto cleaner ships, the company is simply not operating in a way that recognizes the threat posed by global temperature rise. The company has invested in green methanol newbuilds, but these newbuild orders do not outweigh the negative impact of its continued investments in LNG vessels.

COSCO Shipping did receive credit for alternative fuel bunkering and investing in fuel research. The company supports green corridor development but has not joined industry groups committed to decarbonization. COSCO Shipping has not shared a meaningful pathway for how it plans to reach carbon neutrality.

Ship It Zero urges COSCO Shipping to recognize the urgent need for rapid decarbonization of its operation. We call on the company to create a meaningful decarbonization target in line with a 1.5°C pathway, reject false solutions like LNG and scrubbers, and join the Getting to Zero Coalition and First Movers Coalition in order to meet its responsibility to support industry-led decarbonization efforts.





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End Port Pollution Now | TOTAL SCORE: 19

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	10.5	6.5
<ul style="list-style-type: none">Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shippingCommitment to converting fleet/ordering newbuilds that are shore power-compatibleCommitment to using shore power/ZEV offshore charging stationsPublicly committing to prioritize shore power-ready/green portsMember of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)Founding member (First Movers, Getting to Zero)	<div>5</div> <div>2</div> <div>1</div> <div>1</div> <div>1</div> <div>0.5</div>	<div>2.5</div> <div>2</div> <div>1</div> <div>1</div> <div>0</div> <div>0</div>
End Port Pollution Now: Implementation Plan (20% of category grade)	7	4.5
<ul style="list-style-type: none">Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)Investment in or implementation of zero-emission offshore charging stationsImplementation of a plan to reduce air pollution and clean air for port communities	<div>4.5</div> <div>0.5</div> <div>2</div>	<div>4.5¹</div> <div>0</div> <div>0</div>
End Port Pollution Now: Advocacy (20% of category grade)	7	3
<ul style="list-style-type: none">Public support for policy or regulatory measures to reduce port pollutionPartnerships with carriers, ports, and regulators to ZEV infrastructure projects	<div>4</div> <div>3</div>	<div>3</div> <div>0</div>
End Port Pollution Now: Transparency (30% of category grade)	10.5	5
<ul style="list-style-type: none">Public disclosure of progress toward criteria air pollution reduction benchmarksBroken down by vessel and routePublic disclosure of shore power use	<div>7</div> <div>1</div> <div>2.5</div>	<div>3.5</div> <div>0</div> <div>1.5</div>

Abandon Dirty Ships | TOTAL SCORE: 13

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	9	2.5
<ul style="list-style-type: none">Commitment to immediate (2023) reductions in GHG emissions from maritime shippingCommitment to switch to readily available cleaner burning fuelsCommitment to high efficiency retrofitting and operational measures like slow steaming for vesselsDeduction for commitments that rely on LNG (which is a false solution) and carbon offsets	<div>3.5</div> <div>3.5</div> <div>2</div> <div>-2</div>	<div>1.5²</div> <div>1³</div> <div>2</div> <div>-2</div>

¹Some shore power investment; green corridor
²12% GHG emissions reduction by 2030 based on 2019
³Biofuels trial



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Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	6	2.5
<ul style="list-style-type: none">Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)Benchmarks for percentage of existing fleet with efficiency & hybrid retrofitsOffering slow steaming options for customersDeduction for scrubber useDeduction for absolute emissions increasing despite commitmentsBonus for absolute emissions reduction	3 2 1 -2 -2 Bonus +2	1.5 ⁴ 1 ⁵ 0 -2 — +2
Abandon Dirty Ships: Advocacy (20% of category grade)	6	0
<ul style="list-style-type: none">Publicly support strengthening the level of ambition of the GHG reduction policiesPublicly reject HFO, LNG and false solutionsAdvocate for rapid decarbonization through trade organizationsDeduction for advocating for scrubber use	2 3 1 -2	0 0 0 —
Abandon Dirty Ships: Transparency (30% of category grade)	9	8
<ul style="list-style-type: none">Annual public reporting of fleet metrics, including:<ul style="list-style-type: none">Propulsion technologies and efficiency retrofitsFuel types and volumes consumedCO₂e emissions for entire fleet	2 3 4	1 ⁶ 3 4

Put Zero at the Helm | TOTAL SCORE: 14.5

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	10.5	3.5
<ul style="list-style-type: none">General climate commitment<ul style="list-style-type: none">Absolute CO₂e reduction benchmarks for 2025, 2030 and 2035No use of carbon offsets to meet goalNet Zero vs. Absolute Zero2040 vs. 2050Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vesselsMentions low- and zero-emission vesselsOther<ul style="list-style-type: none">Expressions of public support for zero-emission shipping developmentMember of Science-Based Target Initiative (a We Mean Business Coalition commitment)Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	9 (3) (1) (1) (1) (1) (1) (1) 1.5 (0.5) (0.5) (0.5)	3.5 (0) (1) (0) (0) (0.5) (1) (1) 0 (0) (0) (0)

⁴ Priority with no benchmarks

⁵ Priority with no benchmarks

⁶ Talk about retrofits but specifics are lacking



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Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	7 WRONG	3
<ul style="list-style-type: none">Ships<ul style="list-style-type: none">Number of orders or leases for new ZEVs and ZEV-ready shipsDeduction for number of LNG newbuilds or leasesWorking with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologiesWorking with ports and/or investing financially in ZEV infrastructure and/or shipping corridorsFuels<ul style="list-style-type: none">Bunkering contracts for zero-emission fuelsInvestment in R&D in fossil-free ZEV fuels and propulsion technologiesUsing MGO/hybrid-powered vesselsBonus for green fuel contractsEfficiency<ul style="list-style-type: none">Implement efficiency measures (e.g., hull coatings, routes, etc.)	<div>3</div> <div>(1)</div> <div>(-2)</div> <div>(1)</div> <div>(1)</div> <div>3</div> <div>(1)</div> <div>(1)</div> <div>(1)</div> <div>(Bonus +2)</div> <div>1</div>	<div>0</div> <div>(1)</div> <div>(-2)</div> <div>(0)</div> <div>(1)</div> <div>2</div> <div>(1)</div> <div>(1)</div> <div>(0)</div> <div>—</div> <div>1</div>
Put Zero at the Helm: Advocacy (20% of category grade)	7	3
<ul style="list-style-type: none">Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank DeclarationJoin First Movers Coalition and/or Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)Deduction for membership in the Society for Gas as a Marine Fuel	<div>3</div> <div>4</div> <div>-2</div>	<div>3</div> <div>0</div> <div>—</div>
Put Zero at the Helm: Transparency (30% of category grade)	10.5	5
<ul style="list-style-type: none">Publish ZEV transition pathway for fleet with short-, mid- and long-term fuels and/or technologies that will allow the carrier to meet both interim absolute CO₂e reduction targets and achieve a 100% zero emission fleet by 2040Annual public reporting of transition progress toward emissions reduction benchmarks and long-term targets, including fuels, technologies and operational measures implemented to achieve reported emissions reductions	<div>6.5</div> <div>4</div>	<div>1⁷</div> <div>4</div>

⁷No real pathway but some discussion of greener newbuilds