



ZERO-EMISSION SHIPPING REPORT CARD

57
100



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. Mediterranean Shipping Company earned a C in the ending port pollution category; a D in abandoning dirty ships; and a C in putting zero at the helm. Overall, MSC earned 57 / 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.

Mediterranean Shipping Company (MSC) is the largest cargo shipping company in the world, with a whopping 19% market share. Given its size and power within the industry, MSC should be doing much more to lead by example in decarbonizing its operations.

MSC has taken some steps to address pollution at ports. The company emphasizes air pollutant reduction and has committed to shore power utilization, including investing in shore power infrastructure at its terminals. MSC should do more to implement air pollution reduction strategies in port communities, including investing in offshore charging stations. MSC has joined partnerships with ports and carriers to undertake zero-emission infrastructure projects. The company reports on its air pollutant emissions and shore power use, but should do so with much more specificity. Given its position in the industry, Ship It Zero urges MSC to publicly call for regulatory changes to reduce air pollution in ports to lessen the harm being done to port communities.

MSC has a short-term carbon reduction commitment of 40% by 2030 from a 2008 baseline. Unfortunately, it appears that the company may only be concerned with CO₂ versus CO₂e, which includes other greenhouse gasses that are equivalent in warming potential to CO₂. The apparent failure to include the full suite of greenhouse gasses their fleet emits not only results in a significantly weaker target, but is not in line 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.

MSC is switching to some readily available alternative fuels, including biofuels. Ship It Zero does not support long-term biofuel use, as it is not a scalable solution for the maritime sector and still produces problematic emissions. We do, however, recognize that this does provide some immediate reductions in lifecycle air pollution and greenhouse gas emissions compared to fossil fuel combustion. It is a valid short-term bridge fuel for harm reduction while zero-emission fuels and technologies are brought to scale.

MSC is collaborating with the European Commission as part of the 'Horizon Europe' project, set to demonstrate dual-fuel engines with ammonia as the main fuel. The project has an anticipated completion date of 2025. MSC has committed to having its first net-zero emissions vessel in operation by 2030, years later than some of its competitors.

MSC offers slow steaming and invests in efficiency retrofits, but lacks clear benchmarks on retrofitting their fleet. This lack of clarity and benchmarks is also the case for the company's cleaner fuel usage. The company publicly supports stricter emissions reduction standards and rapid decarbonization within the industry. However, MSC has not publicly rejected heavy fuel oil (HFO) or false solutions like liquified natural gas (LNG) and Exhaust Gas Cleaning Systems (i.e., "scrubbers"). Both LNG and scrubbers appear central to their emission reduction strategies.

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.

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 not only high in 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.

MSC reports their fleet's total CO₂ emissions, but Ship It Zero urges the company to report their full greenhouse gas emissions inventory, i.e. their CO₂e emissions. MSC should also report fuel usage by type and fleet retrofitting with much more specificity.

MSC has a carbon neutrality target date of 2050. While this is far too long a timeline to achieve emissions reduction necessary to avoid climate disaster, it is notable that MSC's goal specifically excludes the use of carbon offsets. MSC understands that zero-emission vessels are key to decarbonization efforts. While the company has an ammonia newbuild coming in 2025, it continues to invest in LNG vessels despite the fuel's significant warming potential.

MSC did receive credit for its investments and partnerships for zero-emission technology and infrastructure development, as well as researching alternative fuels. MSC was also credited for actively supporting green corridor development and has joined industry decarbonization groups like the Getting to Zero Coalition. The company had points deducted for membership in the Society of Gas as a Marine Fuel. MSC provides a reasonably detailed pathway toward decarbonization, but its plan is heavily reliant on false solutions. Ship It Zero calls on MSC to report on its decarbonization progress in more detail.

Despite being the largest maritime shipping company in the world and having the money and resources that this requires, MSC is being outpaced by several shipping companies when it comes to decarbonization. Ship It Zero urges MSC to reject false solutions like LNG, commit to only purchase green, fossil-free newbuilds, and commit to decarbonization by 2040 in order to be in alignment with IMO targets and to ensure that it is contributing to the carbon-neutral future that is necessary to ensure our collective survival.



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End Port Pollution Now | TOTAL SCORE: 21

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	10.5	7.5
<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>2.5¹</div> <div>2</div> <div>1</div> <div>1</div> <div>1</div> <div>0 NOT IN RUBRIC</div>
End Port Pollution Now: Implementation Plan (20% of category grade)	7	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>4.5²</div> <div>0</div> <div>0.5³</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>0</div> <div>3⁴</div>
End Port Pollution Now: Transparency (30% of category grade)	10.5	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>3.5⁵</div> <div>0</div> <div>2⁶</div>

Abandon Dirty Ships | TOTAL SCORE: 15

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	9	4.5
<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>2.5⁷</div> <div>2⁸</div> <div>2</div> <div>-2</div>

¹Emphasize pollutant reduction without specific benchmarks

²Shore power investment at their terminals

³Just-in-time port call program

⁴China Waterborne Transport Research Institute MOU; Valencia Terminal project

⁵Reporting on pollutants but with no specific benchmarks

⁶Reporting on shore power use at MSC terminals

⁷40% reduction by 2030 based on 2008, but CO₂ rather than CO₂e

⁸Biofuels program, ammonia in 2025



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Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	6	1.5
<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 ⁹ ¹⁰ -2 — —
Abandon Dirty Ships: Advocacy (20% of category grade)	6	3
<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	2 0 —
Abandon Dirty Ships: Transparency (30% of category grade)	9	6
<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	¹¹ ¹² 4

Put Zero at the Helm | TOTAL SCORE: 21

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	10.5	5.5
<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) 1.5 (0.5) (0.5) (0.5)	4.5 (1) (1) (0) (0) (1) (1) (0.5) (1) (0.5) (0) (0.5)

⁹ Biofuel usage, no benchmarks

¹⁰ Working on retrofitting, no benchmarks

¹¹ Reporting of retrofitting lack specificity

¹² Report on biofuels but no other fuels



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Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	7	3.5
<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.)	3 (l) (-2) (l) (l) 3 (l) (l) (l) (Bonus +2) 1	0.5 (l) ¹³ (-2) (l) (0.5) 2 (0.5) ¹⁴ (0.5) ¹⁵ (l) — 1
Put Zero at the Helm: Advocacy (20% of category grade)	7	5
<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	3 4 -2	3 4 -2
Put Zero at the Helm: Transparency (30% of category grade)	10.5	7
<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	6.5 4	4.5 ¹⁶ 2.5 ¹⁷

¹³ Ammonia newbuilds in 2025

¹⁴ Biofuels bunkering

¹⁵ Lots of investment in alternative fuels but over reliant on LNG

¹⁶ MSC provides a detailed pathway, but target date is 2050

¹⁷ Reporting on fuel use and propulsion technologies should be more detailed; HFO and LNG are combined in ESG reporting