

33.5

Hapag-Lloyd earned 33.5 / 100 available points, or an F grade, on the Ship It Zero 2023 Report Card for the company's actions to date to end its ocean shipping pollution. 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. Hapag-Lloyd earned an F in the ending port pollution category; an F in abandoning dirty ships; and an F in putting zero at the helm.

Hapag-Lloyd is headquartered in Hamburg, Germany, and is the 5th-largest shipping company in the world, with a 6.8% market share. Despite its size and resources, many of the company's emission reduction efforts can be characterized by vague commitments and reliance on false solutions.

In its 2022 Sustainability Report, the company states that it is trying to reduce air pollutant emissions to the "lowest level possible" but does not disclose what the current levels are. Hapag-Lloyd also states that it is gradually converting its fleet to shore power compatibility without much elaboration. It does not appear that the company prioritizes green ports. While the company has invested in biofuels bunkering, a short-term lower emission option, and received recognition from the Port of Vancouver for pollution reduction efforts, we urge Hapag-Lloyd to be more transparent in reporting its air pollutant emissions. Ship It Zero also calls on Hapag-Lloyd to use its position as one of Germany's largest companies to be more proactive in partnering with ports and other carriers on zero-emission infrastructure projects and advocate for regulatory changes to reduce port pollution.

Hapag-Lloyd has a modest short-term greenhouse gas emissions reduction target of 30% by 2030 from a 2019 baseline. The company has invested in efficiency retrofits, offers slow steaming options, and has invested in biofuels. It has not invested in zero-emission alternative fuels that are scalable, long-term options for the industry. Hapag-Lloyd discloses its fleet's total  $CO_2$ e emissions and fuel use by type. Ship It Zero applauds the company for its transparency in this area.

The company had points deducted for heavily relying on liquified natural gas (LNG) as a decarbonization solution (and emphasizing their use of Exhaust Gas Cleaning Systems (i.e., "scrubbers").

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  $CO_2$ . 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 by the fossil fuel and shipping industries. 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 (HFO). 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. The vast majority of 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 discharge the wastewater continuously directly into the oceans (open-loop) or can hold most of the wastewater onboard (closed-loop). Even 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.

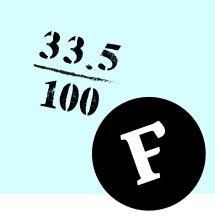
The use of scrubbers also requires energy, thus increasing fuel demand and potentially greenhouse gas emissions. The California Air Resources Board also found that the use of scrubbers increases the amount of particulate matter emitted by vessels, after extensively studying ships operating the systems as compared to ships using lower sulfur fuels. It is for this reason the state, also the 5th largest economy in the world, disallowed the use of scrubbers as an air pollution compliance mechanism within 24 nautical miles of its coastline. It has also mandated the use of cleaner marine fuels.

Hapag-Lloyd has committed to carbon neutrality by 2045, which is somewhat more ambitious than other shipping companies. However, the company's interim target is not ambitious enough. Ship It Zero urges Hapag-Lloyd to share a detailed pathway as to how it will meet its decarbonization goals and provide meaningful annual updates on its progress. We found no record of Hapag-Lloyd publicly supporting green shipping corridor development. While the company received credit for being a member of the Getting To Zero Coalition, points were deducted for membership in the Society for Gas as a Marine Fuel.

Ship It Zero calls on Hapag-Lloyd to better articulate its decarbonization strategies and goals as well as invest in long-term, sustainable strategies to eliminate its greenhouse gas emissions. Ship It Zero also urges the company to publicly reject false solutions like LNG and shift those resources to investments in alternative fuels and green newbuilds. While Hapag-Lloyd's carbon neutrality target of 2045 is better than many carriers, it is still out of line with the reality of the climate crisis, and the company must commit to more rapid decarbonization in order to contribute to the reduction of global emissions that is necessary to ensure the future livability of our planet.







End Port Pollution Now   TOTAL SCOR	.E: 12	
Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	10.5	4
<ul> <li>Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping</li> </ul>	5	1.5
<ul> <li>Commitment to converting fleet/ordering newbuilds that are shore power-compatible</li> </ul>	2	0.51
<ul> <li>Commitment to using shore power/ZEV offshore charging stations</li> </ul>	1	2
<ul> <li>Publicly committing to prioritize shore power-ready/green ports</li> </ul>	1	0
<ul> <li>Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)</li> </ul>	I	1
<ul> <li>Founding member (First Movers, Getting to Zero)</li> </ul>	0.5	0
End Port Pollution Now: Implementation Plan (20% of category grade)	7	6.5
<ul> <li>Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)</li> </ul>	4.5	4.53
Investment in or implementation of zero-emission offshore charging stations	0.5	0
<ul> <li>Implementation of a plan to reduce air pollution and clean air for port communities</li> </ul>	2	2
End Port Pollution Now: Advocacy (20% of category grade)	7	o
Public support for policy or regulatory measures to reduce port pollution	4	0
<ul> <li>Partnerships with carriers, ports, and regulators to ZEV infrastructure projects</li> </ul>	3	0
End Port Pollution Now: Transparency (30% of category grade)	10.5	1.5
Public disclosure of progress toward criteria air pollution reduction benchmarks	7	1.54
Broken down by vessel and route	ĺ	0
Public disclosure of shore power use	2.5	0
Abandon Dirty Ships   TOTAL SCORE: 19	2.5	

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	9	3
<ul> <li>Commitment to immediate (2023) reductions in GHG emissions from maritime shipping</li> </ul>	3.5	1.55
Commitment to switch to readily available cleaner burning fuels	3.5	1.56
<ul> <li>Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels</li> </ul>	2	2
<ul> <li>Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets</li> </ul>	-2	-2

<sup>&</sup>lt;sup>1</sup>ESG document discusses "gradual conversion" without elaboration

<sup>&</sup>lt;sup>2</sup>Use where possible

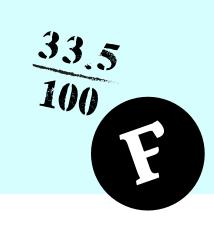
<sup>&</sup>lt;sup>3</sup> Biofuel bunkering

<sup>&</sup>lt;sup>4</sup> Nothing reported since 2020 Report

<sup>5 30%</sup> reduction 2030 goal with CII/EEXI

<sup>&</sup>lt;sup>6</sup> Investment in/conversion to biofuels





Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	6	1.5
<ul> <li>Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)</li> </ul>	3	1.57
Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	[8
Offering slow steaming options for customers	1	1
Deduction for scrubber use	-2	-2
<ul> <li>Deduction for absolute emissions increasing despite commitments</li> </ul>	-2	_
Bonus for absolute emissions reduction	Bonus +2	_
Abandon Dirty Ships: Advocacy (20% of category grade)	6	o
<ul> <li>Publicly support strengthening the level of ambition of the GHG reduction policies</li> </ul>	2	1
<ul> <li>Publicly reject HFO, LNG and false solutions</li> </ul>	3	0
<ul> <li>Advocate for rapid decarbonization through trade organizations</li> </ul>	1	ĺ
Deduction for advocating for scrubber use	-2	-2
Abandon Dirty Ships: Transparency (30% of category grade)	9	8
<ul> <li>Annual public reporting of fleet metrics, including:</li> <li>Propulsion technologies and efficiency retrofits</li> </ul>	2	<b> </b> 9
<ul> <li>Propulsion technologies and efficiency retrofits</li> <li>Fuel types and volumes consumed</li> </ul>	3	3
<ul> <li>CO<sub>2</sub>e emissions for entire fleet</li> </ul>	4	4

Put Zero at t	he Helm	TOTAL SCORE: 9
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## Performance Criteria

Possible	Points
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## **Company Score**

Put Zero at the Helm: Commitment (30% of category grade)	10.5	3
<ul> <li>General climate commitment</li> <li>Absolute CO<sub>2</sub>e reduction benchmarks for 2025, 2030 and 2035</li> <li>No use of carbon offsets to meet goal</li> <li>Net Zero vs. Absolute Zero</li> <li>2040 vs. 2050</li> <li>Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)</li> </ul>	9 (3) (1) (1) (1)	2.5 (I) <sup>10</sup> (I) (0) (0.5) <sup>11</sup> (0)
<ul> <li>Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels</li> <li>Mentions low- and zero-emission vessels</li> <li>Other</li> </ul>	(I) (I) I.5	(0) (0) 0.5
<ul> <li>Expressions of public support for zero-emission shipping development</li> <li>Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)</li> <li>Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)</li> </ul>	(0.5) (0.5) (0.5)	(0) (0) (0.5)

<sup>&</sup>lt;sup>7</sup> Significant expansion of sustainable biofuels but no firm benchmark

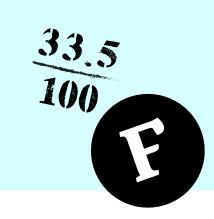
<sup>&</sup>lt;sup>8</sup> Investment in retrogrades and updates but no firm benchmark

<sup>&</sup>lt;sup>9</sup> Available information is not exhaustive

<sup>&</sup>lt;sup>10</sup> 30% reduction by 2030 with 2019 baseline

<sup>&</sup>lt;sup>11</sup> 2045





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Performance Criteria	- 1	Possible
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Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	7	1
<ul> <li>Ships         <ul> <li>Number of orders or leases for new ZEVs and ZEV-ready ships</li> <li>Deduction for number of LNG newbuilds or leases</li> <li>Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies</li> <li>Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors</li> </ul> </li> <li>Fuels         <ul> <li>Bunkering contracts for zero-emission fuels</li> <li>Investment in R&amp;D in fossil-free ZEV fuels and propulsion technologies</li> <li>Using MGO/hybrid-powered vessels</li> <li>Bonus for green fuel contracts</li> </ul> </li> <li>Efficiency         <ul> <li>Implement efficiency measures (e.g., hull coatings, routes, etc.)</li> </ul> </li> </ul>	3 (I) (-2) (I) (I) 3 (I) (I) (I) (Bonus +2)	-2 (0) (-2) (0) (0) 2 (1) (1) (0) —
Put Zero at the Helm: Advocacy (20% of category grade)	7	2
<ul> <li>Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration</li> </ul>	3	0
<ul> <li>Join 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)</li> </ul>	4	4
Deduction for membership in the Society for Gas as a Marine Fuel	-2	-2
Put Zero at the Helm: Transparency (30% of category grade)	10.5	3
<ul> <li>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 CO<sub>2</sub>e reduction targets and achieve a 100% zero emission fleet by 2040</li> </ul>	6.5	1.5 <del>12</del>
Association belonging the second transfer of the second second sections and sections	4	I Esp

• Annual public reporting of transition progress toward emissions reduction

operational measures implemented to achieve reported emissions reductions

benchmarks and long-term targets, including fuels, technologies and

<sup>&</sup>lt;sup>12</sup> Pathway to net zero emissions lack specificity and is reliant on LNG and biofuels, neither of which are long-term solutions

<sup>13</sup> Reporting is piecemeal and not comprehensive