Hapag-Lloyd

ZERO-EMISSION SHIPPING

REPORT CARD

33.5
100

F

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_2e 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.

SHIP IT ZERO

Hapag-Lloyd

ZERO-EMISSION SHIPPING

REPORT CARD

33.5
100
F

End Port Pollution Now | TOTAL SCORE: 12

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	**10.5**	**4**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	1.5
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	0.5[1]
• Commitment to using shore power/ZEV offshore charging stations	1	1[2]
• Publicly commiting to prioritize shore power-ready/green ports	1	0
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	1
• Founding member (First Movers, Getting to Zero)	0.5	0
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**6.5**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5[3]
• Investment in or implementation of zero-emission offshore charging stations	0.5	0
• Implementation of a plan to reduce air pollution and clean air for port communities	2	2
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**0**
• Public support for policy or regulatory measures to reduce port pollution	4	0
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	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	1.5[4]
• Broken down by vessel and route	1	0
• Public disclosure of shore power use	2.5	0

Abandon Dirty Ships | TOTAL SCORE: 12.5

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**3**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	1.5[5]
• Commitment to switch to readily available cleaner burning fuels	3.5	1.5[6]
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	2
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-2

[1] ESG document discusses "gradual conversion" without elaboration

[2] Use where possible

[3] Biofuel bunkering

[4] Nothing reported since 2020 Report

[5] 30% reduction 2030 goal with CII/EEXI

[6] Investment in/conversion to biofuels

Hapag-Lloyd

ZERO-EMISSION SHIPPING

REPORT CARD

33.5
100
F

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**1.5**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	1.5[7]
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	1[8]
• Offering slow steaming options for customers	1	1
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	—
• Bonus for absolute emissions reduction	Bonus +2	—
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**0**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	1
• Publicly reject HFO, LNG and false solutions	3	0
• Advocate for rapid decarbonization through trade organizations	1	1
• Deduction for advocating for scrubber use	-2	-2
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**8**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1[9]
◦ Fuel types and volumes consumed	3	3
◦ CO_2e emissions for entire fleet	4	4

Put Zero at the Helm | TOTAL SCORE: 9

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	**10.5**	**3**
• General climate commitment	9	2.5
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(1)[10]
◦ No use of carbon offsets to meet goal	(1)	(1)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0.5)[11]
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(0)
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(0)
◦ Mentions low- and zero-emission vessels	(1)	(0)
◦ Other	1.5	0.5
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0.5)

[7] Significant expansion of sustainable biofuels but no firm benchmark

[8] Investment in retrogrades and updates but no firm benchmark

[9] Available information is not exhaustive

[10] 30% reduction by 2030 with 2019 baseline

[11] 2045

Hapag-Lloyd

ZERO-EMISSION SHIPPING

REPORT CARD

33.5
100
F

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**1**
◦ Ships	3	-2
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(1)	(0)
◦ Deduction for number of LNG newbuilds or leases	(-2)	(-2)
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(1)	(0)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(1)	(0)
◦ Fuels	3	2
◦ Bunkering contracts for zero-emission fuels	(1)	(1)
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(1)	(1)
◦ Using MGO/hybrid-powered vessels	(1)	(0)
◦ Bonus for green fuel contracts	(Bonus +2)	—
◦ Efficiency	1	1
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**2**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	0
◆ 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)	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**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	1.5[12]
◆ Annual 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	4	1.5[13]

[12] Pathway to net zero emissions lack specificity and is reliant on LNG and biofuels, neither of which are long-term solutions

[13] Reporting is piecemeal and not comprehensive

ZERO-EMISSION SHIPPING
REPORT CARD

64 / 100

C

Hyundai Merchant Marine earned 64 / 100 available points, or a C 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. HMM earned a C in the ending port pollution category; an F in abandoning dirty ships; and a B in putting zero at the helm.

Hyundai Merchant Marine is the 8th-largest container shipping company in the world and is the largest in the Republic of Korea. While HMM has made laudable strides in addressing their emissions and climate impact, it is not yet the "global leader in creating sustainable value for the world," as the company's vision statement states.

HMM scored fairly well in the port pollution category. The company emphasizes air pollutant reduction in ports and has committed to utilizing shore power. It continues to invest in efficiency and emissions reduction measures for the terminals that it operates. HMM has received recognition from the Port of Vancouver for its port pollution reduction efforts, and has partnered with ports on zero-emission infrastructure projects. The company received some credit for its pollution education program for employees.

Ship It Zero urges HMM to use its position to advocate for regulatory changes to reduce port pollution. We also encourage the company to invest in offshore charging stations to further reduce port and coastal air pollution. While the company reports some of its air pollutant emissions, it lacks reduction benchmarks and does not break the information down by vessel and route. HMM reports its shore power use. Ship It Zero calls on HMM to provide more specificity on its shore power use and the full emissions data for criteria pollutants; in addition to its reporting on its emissions of nitrogen oxides, sulfur oxides, and particulate matter, the company also needs to report ozone, and carbon monoxide emissions.

HMM has an admirable short-term greenhouse gas emissions reduction target of 50% by 2030, based on a 2008 baseline. The company has committed to switching their freight to readily available lower-emission fuels, with a target of 12% alternative fuels by 2025. HMM has committed to and implemented efficiency retrofits and slow steaming as part of their 2030 goal.

However, the company had points deducted for relying on liquified natural gas (LNG) and using and advocating for 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 by the fossil fuel industry and the shipping sector as a future so-called "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 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.

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.

We urge HMM to publicly reject these false solutions and use its position to advocate for stronger emissions reduction standards, though the company is active in industry-led decarbonization initiatives like Clean Cargo. HMM received credit for reporting on the fleet's total CO_2e emissions, fuel use by type, and propulsion technologies.

HMM has committed to carbon neutrality by 2050, which is too long a timeframe given the urgency of the climate crisis. However, the company received credit for having interim emissions reduction goals and time bound targets for utilizing cleaner fuels and other emissions reduction technologies. HMM understands the role of zero-emission vessels in their goals and is a member of the Getting to Zero Coalition. While HMM received credit for having green newbuilds on the order book and working with ports and carriers on zero-emission technologies and infrastructure, it had points deducted for continued investment in LNG. We commend HMM for investing in ammonia bunkering and for establishing an Alternative Fuels Task Force, as well as supporting green corridor development. The company has a fairly detailed pathway toward decarbonization, and reports annually on their progress toward this goal.

While Ship It Zero recognizes the many positive steps that HMM has taken, we urge the company to stop embracing false solutions like LNG and scrubbers, which significantly impacted its overall score. We also call on the company to commit to decarbonization by 2030 and only invest in green newbuilds in the future. These are necessary steps the company must take to do their part in avoiding a collective climate catastrophe.

SHIP IT ZERO

ZERO-EMISSION SHIPPING
REPORT CARD

64/100

C

End Port Pollution Now | TOTAL SCORE: 25

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	**10.5**	**7.5**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	2.5[1]
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	2[2]
• Commitment to using shore power/ZEV offshore charging stations	1	1
• Publicly commiting to prioritize shore power-ready/green ports	1	1
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	1
• Founding member (First Movers, Getting to Zero)	0.5	0
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**6.5**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5
• Investment in or implementation of zero-emission offshore charging stations	0.5	0
• Implementation of a plan to reduce air pollution and clean air for port communities	2	2
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**5**
• Public support for policy or regulatory measures to reduce port pollution	4	2[3]
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	3	3
End Port Pollution Now: Transparency (30% of category grade)	**10.5**	**6**
• Public disclosure of progress toward criteria air pollution reduction benchmarks	7	3.5[4]
• Broken down by vessel and route	1	0
• Public disclosure of shore power use	2.5	2.5

Abandon Dirty Ships | TOTAL SCORE: 12.5

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**4**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	2[5]
• Commitment to switch to readily available cleaner burning fuels	3.5	2[6]
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	2[7]
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-2

[1] Emphasize pollutant reduction without specific benchmarks
[2] Specific mention of retrofitting but short of full commitment
[3] Pollution education program for HMM staff
[4] Reporting on NOX, SOX, and PM but lack specific benchmarks
[5] 50% reduction by 2030 on 2008 baseline with short-term mitigation strategies
[6] 12% alternative fuels by 2025
[7] Lots of efficiency strategies and slow operating speed

ZERO-EMISSION SHIPPING
REPORT CARD

64/100

C

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**1**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	2.5
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	1.5[7]
• Offering slow steaming options for customers	1	1
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	-2
• Bonus for absolute emissions reduction	Bonus +2	—
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**-1**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	0
• Publicly reject HFO, LNG and false solutions	3	0
• Advocate for rapid decarbonization through trade organizations	1	1
• Deduction for advocating for scrubber use	-2	-2
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**8.5**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1.5
◦ Fuel types and volumes consumed	3	3
◦ CO_2e emissions for entire fleet	4	4

Put Zero at the Helm | TOTAL SCORE: 26.5

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	**10.5**	**7**
• General climate commitment	9	6
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(3)
◦ No use of carbon offsets to meet goal	(1)	(0)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(1)
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(1)
◦ Mentions low- and zero-emission vessels	(1)	(1)
◦ Other	1.5	1
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0.5)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0.5)

[7] Increasing number of ships meeting CII regulations part of 2030 goal

ZERO-EMISSION SHIPPING
REPORT CARD

64/100

C

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**4**
◦ Ships	3	1
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(1)	(1)
◦ Deduction for number of LNG newbuilds or leases	(-2)	(-2)
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(1)	(1)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(1)	(1)
◦ Fuels	3	2
◦ Bunkering contracts for zero-emission fuels	(1)	(1)
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(1)	(1)
◦ Using MGO/hybrid-powered vessels	(1)	(0)
◦ Bonus for green fuel contracts	(Bonus +2)	—
◦ Efficiency	1	1
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**7**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	3
◆ 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)	4	4
◆ Deduction for membership in the Society for Gas as a Marine Fuel	-2	—
Put Zero at the Helm: Transparency (30% of category grade)	**10.5**	**8.5**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	4.5[8]
◆ Annual 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	4	4

[8] Fairly detailed pathway with some interim targets, but net zero goal is 2050

ZERO-EMISSION SHIPPING

REPORT CARD

57
100

D

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 CO_2 versus CO_2e, which includes other greenhouse gasses that are equivalent in warming potential to CO_2. 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 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. 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 CO_2 emissions, but Ship It Zero urges the company to report their full greenhouse gas emissions inventory, i.e. their CO_2e 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.

SHIP IT ZERO

ZERO-EMISSION SHIPPING
REPORT CARD

57/100

D

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**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	2.5[1]
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	2
• Commitment to using shore power/ZEV offshore charging stations	1	1
• Publicly commiting to prioritize shore power-ready/green ports	1	1
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	1
• Founding member (First Movers, Getting to Zero)	0.5	0 NOT IN RUBRIC
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**5**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5[2]
• Investment in or implementation of zero-emission offshore charging stations	0.5	0
• Implementation of a plan to reduce air pollution and clean air for port communities	2	0.5[3]
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**3**
• Public support for policy or regulatory measures to reduce port pollution	4	0
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	3	3[4]
End Port Pollution Now: Transparency (30% of category grade)	**10.5**	**5.5**
• Public disclosure of progress toward criteria air pollution reduction benchmarks	7	3.5[5]
• Broken down by vessel and route	1	0
• Public disclosure of shore power use	2.5	2[6]

Abandon Dirty Ships | TOTAL SCORE: 15

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**4.5**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	2.5[7]
• Commitment to switch to readily available cleaner burning fuels	3.5	2[8]
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	2
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-2

[1] Emphasize pollutant reduction without specific benchmarks
[2] Shore power investment at their terminals
[3] Just-in-time port call program
[4] China Waterborne Transport Research Institute MOU; Valencia Terminal project
[5] Reporting on pollutants but with no specific benchmarks
[6] Reporting on shore power use at MSC terminals
[7] 40% reduction by 2030 based on 2008, but CO_2 rather than CO_2e
[8] Biofuels program, ammonia in 2025

ZERO-EMISSION SHIPPING
REPORT CARD

57/100

D

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**1.5**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	1.5[9]
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	1[10]
• Offering slow steaming options for customers	1	1
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	—
• Bonus for absolute emissions reduction	Bonus +2	—
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**3**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	2
• Publicly reject HFO, LNG and false solutions	3	0
• Advocate for rapid decarbonization through trade organizations	1	1
• Deduction for advocating for scrubber use	-2	—
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**6**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1[11]
◦ Fuel types and volumes consumed	3	1[12]
◦ CO_2e emissions for entire fleet	4	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**
• General climate commitment	9	4.5
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(1)
◦ No use of carbon offsets to meet goal	(1)	(1)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(1)
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(0.5)
◦ Mentions low- and zero-emission vessels	(1)	(1)
◦ Other	1.5	1
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0.5)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(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

ZERO-EMISSION SHIPPING
REPORT CARD

57/100

D

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**3.5**
◦ Ships	3	0.5
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(I)	(I)[13]
◦ Deduction for number of LNG newbuilds or leases	(-2)	(-2)
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(I)	(I)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(I)	(0.5)
◦ Fuels	3	2
◦ Bunkering contracts for zero-emission fuels	(I)	(0.5)[14]
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(I)	(0.5)[15]
◦ Using MGO/hybrid-powered vessels	(I)	(I)
◦ Bonus for green fuel contracts	(Bonus +2)	
◦ Efficiency	I	I
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**5**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	3
◆ 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)	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**	**7**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	4.5[16]
◆ Annual 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	4	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

OCEAN NETWORK EXPRESS

ZERO-EMISSION SHIPPING REPORT CARD

71.5 / 100

C

ONE earned 71.5 / 100 available points, or a C 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. ONE earned a C in ending port pollution; a C in abandoning dirty ships; and a B in putting zero at the helm.

Ocean Network Express is a Japanese joint venture that is the 7th-largest shipping company in the world, with a 6.1% market share. While there is still significant room for improvement, ONE is one of the higher performing shipping companies evaluated.

ONE is taking steps to reduce their air pollutant emissions and has committed to utilizing shore power, but we found no record of a firm commitment to ensuring the shore power capability of its fleet or investment in offshore charging stations. The company received credit for its work with the Centre for Maritime Decarbonization and the recognition it received from the Port of Vancouver for pollution reduction measures. ONE reports some of its air pollutant emissions and shore power.

Ship It Zero calls on ONE to provide more specificity on its shore power use and the full emissions data for criteria pollutants; in addition to its reporting on its emissions of nitrogen oxides and sulfur oxides, the company also needs to report particulate matter, ozone, and carbon monoxide emissions.

We applaud ONE for its partnerships with ports and carriers on zero-emission infrastructure projects. However, Ship It Zero urges ONE to use its position as Japan's largest shipping company to publicly call for regulatory changes to reduce port pollution.

ONE has one of the most ambitious short-term carbon emission reduction targets of 70% for Scope I emissions by 2030 from a 2008 baseline. The company is utilizing biofuels as a bridge to ammonia and methanol buildout. ONE also prioritizes efficiency retrofits and slow steaming. ONE also reports its total fleet emissions and fuel use by type. The company was docked for using liquified natural gas (LNG), but Ship It Zero recognizes that the company views this as a purely short-term measure. As such, the company was only docked partial points for its LNG use.

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 by the fossil fuel industry and the shipping sector as a future so-called "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.

While ONE has a well-established Green Strategy and advocates for decarbonization within the industry, we call on the company to publicly advocate for stronger emissions reduction standards.

We are also concerned with the extent to which ONE relies on Exhaust Gas Cleaning Systems (i.e., "scrubbers"), which the company should reject in the long-term as it has with LNG. 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.

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.

ONE has committed to carbon net neutrality by 2050, which is too long a timeframe to achieve the emission reductions necessary to avoid a climate catastrophe. The company recognizes the need to shift to zero-emission vessels, and has time bound targets to move freight onto cleaner ships. Though the company is behind on investment in lower-emission vessels, it has ammonia hybrid newbuilds on the order book, and is investing in zero-emission fuels, technologies, and infrastructure. ONE is proactive in joining many industry groups, including the Getting to Zero Coalition and the Hydrogen Council, and has publicly supported green corridor development. The company provides a detailed pathway toward decarbonization and annual updates on progress toward this goal.

Ship It Zero calls on ONE to end its reliance on LNG and publicly reject this false solution. We also urge ONE to invest only in green newbuilds moving forward and commit to decarbonization on a much more ambitious timeline, in order to ensure that we are able to stay within a 1.5°C pathway.

SHIP IT ZERO

ONE
OCEAN NETWORK EXPRESS

ZERO-EMISSION SHIPPING REPORT CARD

71.5
100

C

End Port Pollution Now | TOTAL SCORE: 21

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	**10.5**	**5.5**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	2.5
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	0
• Commitment to using shore power/ZEV offshore charging stations	1	1
• Publicly commiting to prioritize shore power-ready/green ports	1	1
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	1
• Founding member (First Movers, Getting to Zero)	0.5	0
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**6.5**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5[1]
• Investment in or implementation of zero-emission offshore charging stations	0.5	0
• Implementation of a plan to reduce air pollution and clean air for port communities	2	2
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**3**
• Public support for policy or regulatory measures to reduce port pollution	4	0
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	3	3[2]
End Port Pollution Now: Transparency (30% of category grade)	**10.5**	**6**
• Public disclosure of progress toward criteria air pollution reduction benchmarks	7	3.5[3]
• Broken down by vessel and route	1	0
• Public disclosure of shore power use	2.5	2.5[4]

Abandon Dirty Ships | TOTAL SCORE: 21.5

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**6**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	3[5]
• Commitment to switch to readily available cleaner burning fuels	3.5	2[6]
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	2[7]
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-1[8]

[1] Biofuels bunkering pilot, Centre for Maritime Efficiency/Center for Maritime Decarbonization
[2] MoC with Port of Singapore
[3] NOX/SOX reporting, no specific benchmarks
[4] Reported as location-based electricity use
[5] 70% Scope 1 reduction by 2030 from 2008 baseline
[6] Using sustainable biofuels, specifically noting it is pilot fuel for ammonia/methanol
[7] Slow steaming and retrofits
[8] Mention LNG but note it would only be temporary measure

OCEAN NETWORK EXPRESS

ZERO-EMISSION SHIPPING REPORT CARD

71.5
100

C

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**3**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	2[9]
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	2
• Offering slow steaming options for customers	1	1
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	—
• Bonus for absolute emissions reduction	Bonus +2	—
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**4.5**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	1.5[10]
• Publicly reject HFO, LNG and false solutions	3	2
• Advocate for rapid decarbonization through trade organizations	1	1
• Deduction for advocating for scrubber use	-2	—
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**8**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1[11]
◦ Fuel types and volumes consumed	3	3
◦ CO_2e emissions for entire fleet	4	4

Put Zero at the Helm | TOTAL SCORE: 29

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	**10.5**	**7.5**
• General climate commitment	9	6.5
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(2.5)
◦ No use of carbon offsets to meet goal	(1)	(1)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(1)
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(1)
◦ Mentions low- and zero-emission vessels	(1)	(1)
◦ Other	1.5	1
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0.5)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0.5)

[9] Emphasis on alternative fuel buildout, no firm benchmarks

[10] Strong 2030 goal; Green Strategy has five decarbonization initiatives

[11] Explain retrofits but few specifics

OCEAN NETWORK EXPRESS

ZERO-EMISSION SHIPPING REPORT CARD

71.5
100

C

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**6**
◦ Ships	3	3
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(I)	(I)[12]
◦ Deduction for number of LNG newbuilds or leases	(-2)	—
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(I)	(I)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(I)	(I)
◦ Fuels	3	2
◦ Bunkering contracts for zero-emission fuels	(I)	(I)
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(I)	(I)
◦ Using MGO/hybrid-powered vessels	(I)	(-)
◦ Bonus for green fuel contracts	(Bonus +2)	—
◦ Efficiency	I	I
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**7**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	3
◆ 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)	4	4[13]
◆ Deduction for membership in the Society for Gas as a Marine Fuel	-2	—
Put Zero at the Helm: Transparency (30% of category grade)	**10.5**	**8.5**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	4.5[14]
◆ Annual 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	4	4

[12] Ammonia hybrid newbuilds
[13] GTZ/GCMD
[14] ONE provides a detailed pathway, but target date is 2050

ZERO-EMISSION SHIPPING
REPORT CARD

17
100

F

PIL earned 17 / 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. Pacific International Lines earned an F in the ending port pollution category; an F in abandoning dirty ships; and an F in putting zero at the helm. It is the worst performing container shipping line in this report card.

Pacific International Lines is lagging far behind on climate action. The company ranked last among the shipping carriers evaluated for this report card. To our knowledge, the company's 2021 sustainability report is the only one the company has produced.

The company has not publicly committed to reducing criteria air pollutants in ports, and only reports their emissions for one pollutant (SOX). The company does utilize Alternative Marine Power (AMP, also known as shore power), and has made some investments in shore power infrastructure. These investments appear minimal compared to other carriers. It has stated that its newbuild vessels will be shore power compatible, but has not set benchmarks for retrofitting the existing vessels in its fleet for shore power. PIL has not committed to prioritizing green ports.

PIL has invested in zero-emission port infrastructure through the Centre for Maritime Decarbonization. It also participates in the Port of Long Beach's Green Flag program for ship speed reductions, referred to as slow steaming. Slow steaming reduces fuel demand and lowers air and greenhouse gas emissions.

However, PIL is not a member of corporate initiatives to reduce air and greenhouse gas pollution, such as the Getting to Zero coalition or First Movers Coalition. The company has not advocated for regulatory changes to reduce port pollution or invested in zero-emission offshore charging stations. PIL received credit for joining the Silk Alliance, which is pursuing green corridors in Asia, but the company does not report their air pollutant emissions or shore power use at all.

PIL has not made any public commitments to immediately reduce greenhouse gas emissions. The company received credit for efficiency retrofits and slow steaming, as well as having ammonia newbuilds on the order book. However, PIL was docked points for investing in liquified natural gas (LNG) and using 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 by the fossil fuel industry and the shipping sector as a future so-called "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 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.

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.

The company does not have benchmarks for the percentage of their fleet using cleaner fuels or efficiency retrofits. The company does advocate for rapid decarbonization through trade organizations, but has not advocated for stronger greenhouse gas reduction policies or publicly rejected HFO, LNG, and other false solutions. The company does not report its fleet's CO_2e emissions, fuel types, or propulsion technologies and efficiency retrofits.

PIL has a weak commitment to achieve net carbon neutrality by 2050, and received limited credit for its vague commitment to shore power-equipped vessels. The company does not have interim emissions reduction targets or commitments to shift freight onto low and zero-emission vessels. While PIL has expressed public support for zero-emission shipping development, it is not a member of the Science-Based Target Initiative. The company has invested in some research and development for lower-emission fuels, and does not appear to have bunkering contracts for cleaner fuels or utilize MGO as a fuel. The company has not presented a transition pathway toward zero-emission, nor does the company report on their progress toward this transition.

PIL must recognize our climate reality and act with much more urgency to decarbonize their operations. Ship It Zero calls on the company to commit to at least 50% absolute emissions reductions by 2030 and complete decarbonization by 2040. We urge PIL to stop investing in LNG and instead invest in zero-emission fuels and green newbuilds to drastically reduce the carbon footprint of the company's fleet.

SHIP IT ZERO

PIL

ZERO-EMISSION SHIPPING REPORT CARD

17/100

F

End Port Pollution Now | TOTAL SCORE: 10

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

Abandon Dirty Ships | TOTAL SCORE: 1.5

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**1.5**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	0
• Commitment to switch to readily available cleaner burning fuels	3.5	1.5[5]
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	2
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-2[6]

[1] Focus only on SOX

[2] Centre for Maritime Efficiency/Center for Maritime Decarbonization

[3] Green Flag Programme

[4] Silk Alliance membership, which does not exclude LNG from green corridor framework

[5] Discussion and pilot of biofuels and ammonia newbuilds

[6] Strong focus on LNG newbuilds and R&D

PIL ZERO-EMISSION SHIPPING REPORT CARD

17/100

F

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**-1**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	0
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	0
• Offering slow steaming options for customers	1	1
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	—
• Bonus for absolute emissions reduction	Bonus +2	—
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**1**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	0
• Publicly reject HFO, LNG and false solutions	3	0
• Advocate for rapid decarbonization through trade organizations	1	1
• Deduction for advocating for scrubber use	-2	—
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**0**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	0
◦ Fuel types and volumes consumed	3	0
◦ CO_2e emissions for entire fleet	4	0

Put Zero at the Helm | TOTAL SCORE: 5.5

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	**10.5**	**1.5**
• General climate commitment	9	1
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(0.5)
◦ No use of carbon offsets to meet goal	(1)	(0)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(0)
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(0.5)
◦ Mentions low- and zero-emission vessels	(1)	(0)
◦ Other	1.5	0.5
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0.5)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0)

ZERO-EMISSION SHIPPING REPORT CARD

PIL

17/100

F

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**2**
◦ Ships	3	0.5
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(1)	(0)
◦ Deduction for number of LNG newbuilds or leases	(-2)	—
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(1)	(0)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(1)	(0) + REGULATORS .5*
◦ Fuels	3	0.5[7]
◦ Bunkering contracts for zero-emission fuels	(1)	(0)
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(1)	(0.5)
◦ Using MGO/hybrid-powered vessels	(1)	(0)
◦ Bonus for green fuel contracts	(Bonus +2)	—
◦ Efficiency	1	1
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**2**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	2[8]
◆ 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)	4	0
◆ Deduction for membership in the Society for Gas as a Marine Fuel	-2	—
Put Zero at the Helm: Transparency (30% of category grade)	**10.5**	**0**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	0
◆ Annual 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	4	0

[7] Biofuels pilot

[8] Silk Alliance membership, which does not exclude LNG from green corridor framework

YANG MING

ZERO-EMISSION SHIPPING

REPORT CARD

39
100

F

Yang Ming earned 39 / 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. Yang Ming earned a D in the ending port pollution category; an F in abandoning dirty ships; and an F in putting zero at the helm.

Yang Ming Marine Transport Corporation, headquartered in Taiwan, is the world's 9th-largest container shipping company. The company must improve its efforts to address the company's climate impact in line with the urgent need for global decarbonization.

Yang Ming received credit for its efforts to address its air pollutant emissions. The company has committed to utilize shore power and ensure that their fleet is shore-power compatible. The company also prioritizes green ports, and is a member of the Getting to Zero Coalition. The company has invested in terminal electrification and received recognition for addressing port pollution by the Port of Vancouver. We urge Yang Ming to invest in offshore charging stations. We also encourage the company to use its political power to publicly advocate for regulations to reduce port pollution. The company reports its air pollutant emissions, but does not break the data down by vessel and route. The company does not appear to report their shore power use.

Yang Ming received partial credit for its membership in the Silk Alliance, an effort to create green shipping corridors in Asia. However, Ship It Zero is concerned with the Silk Alliance's support for liquefied fossil gas (LNG) as a so-called potential decarbonization pathway.

Yang Ming has achieved their short-term greenhouse gas emissions reduction goal of 40% by 2030, from a 2008 baseline. The company received credit for its commitment to and targets for efficiency retrofits and slow steaming, but was docked points for reliance on LNG in its commitments.

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 by the fossil fuel industry and the shipping sector as a future so-called "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.

Yang Ming was docked points for using Exhaust Gas Cleaning Systems (i.e., "scrubbers") and advocating for scrubbers as a solution. NE relies on Exhaust Gas Cleaning Systems (i.e., "scrubbers"), which the company should reject in the long-term as it has with LNG. 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.

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.

The company received bonus points for reporting a reduction in absolute emissions. Yang Ming advocates for rapid decarbonization through trade organizations, but has not publicly rejected HFO, LNG, and false solutions or advocated for stronger greenhouse gas emission reduction standards. The company received credit for transparency, as it reports on total fleet CO_2e emissions, fuel types consumed, and propulsion technologies and efficiency retrofits.

Yang Ming has a weak overall decarbonization goal: a 70% reduction in emissions by 2050. This is completely out of alignment with a 1.5° C aligned goal. It also fails to meet targets agreed in July 2023 by the United Nations International Maritime Organization (IMO), which call for 30% absolute emissions reductions by 2030, 80% absolute emissions reductions by 2040, and net-zero by 2050.

The company does not have time-bound commitments to move their freight onto lower-emission vessels, and does not discuss investing in zero-emission ships in much detail. The company had points deducted for having LNG newbuilds on the order book. Yang Ming also does not appear to have any bunkering contracts for zero-emission fuels or investments in research and development for new fuel types. The company is utilizing MGO-powered vessels in Emission Control Areas (ECAs), but we found no disclosure of the percentage of their that fleet has this capability. Yang Ming received credit for supporting green corridor development, but had points deducted for membership in the Society for Gas as a Marine Fuel. Yang Ming has not presented a clear decarbonization pathway publicly, and its reporting on transition progress is extremely limited.

Yang Ming must invest more in readily available lower emission fuels and move cargo onto those vessels immediately. Ship It Zero calls on Yang Ming to commit to full decarbonization by 2040, in line with the urgent need to halve global emissions across all sectors. We urge the company to only invest in low and zero-emission vessels moving forward.

SHIP IT ZERO

YANG MING

ZERO-EMISSION SHIPPING

REPORT CARD

39/100

F

End Port Pollution Now | TOTAL SCORE: 19.5

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	**10.5**	**7.5**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	2.5
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	2
• Commitment to using shore power/ZEV offshore charging stations	1	1
• Publicly commiting to prioritize shore power-ready/green ports	1	1
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	1
• Founding member (First Movers, Getting to Zero)	0.5	0
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**6.5**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5
• Investment in or implementation of zero-emission offshore charging stations	0.5	0
• Implementation of a plan to reduce air pollution and clean air for port communities	2	2
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**2**
• Public support for policy or regulatory measures to reduce port pollution	4	0
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	3	2[1]
End Port Pollution Now: Transparency (30% of category grade)	**10.5**	**3.5**
• Public disclosure of progress toward criteria air pollution reduction benchmarks	7	3.5[2]
• Broken down by vessel and route	1	0
• Public disclosure of shore power use	2.5	0

Abandon Dirty Ships | TOTAL SCORE: 12.5

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**3**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	3[3]
• Commitment to switch to readily available cleaner burning fuels	3.5	0
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	2
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-2

[1] Silk Alliance membership, which does not exclude LNG from green corridor framework

[2] NOX/SOX reporting, no specific benchmarks

[3] 40% reduction by 2030; CII and EEXI-informed short-term efficiency goals

YANG MING

ZERO-EMISSION SHIPPING

REPORT CARD

39/100

F

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**2.5**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	0
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	1.5
• Offering slow steaming options for customers	1	1
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	—
• Bonus for absolute emissions reduction	Bonus +2	+2
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**-1**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	0
• Publicly reject HFO, LNG and false solutions	3	0
• Advocate for rapid decarbonization through trade organizations	1	1
• Deduction for advocating for scrubber use	-2	-2
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**8**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1
◦ Fuel types and volumes consumed	3	3
◦ CO_2e emissions for entire fleet	4	4

Put Zero at the Helm | TOTAL SCORE: 7

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	**10.5**	**1.5**
• General climate commitment	9	1
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(0.5)
◦ No use of carbon offsets to meet goal	(1)	(0)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(0)
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(0.5)
◦ Mentions low- and zero-emission vessels	(1)	(0)
◦ Other	1.5	0.5
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0.5)

YANG MING

ZERO-EMISSION SHIPPING

REPORT CARD

39/100

F

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**0.5**
◦ Ships	3	-1.5
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(1)	(0)
◦ Deduction for number of LNG newbuilds or leases	(-2)	(-2)
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(1)	(0)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(1)	(0.5)[4]
◦ Fuels	3	1
◦ Bunkering contracts for zero-emission fuels	(1)	(0)
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(1)	(0)
◦ Using MGO/hybrid-powered vessels	(1)	(1)
◦ Bonus for green fuel contracts	(Bonus +2)	—
◦ Efficiency	1	1
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**4**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	2[5]
◆ 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)	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**	**1**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	0[6]
◆ Annual 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	4	1

[4] Silk Alliance membership, which does not exclude LNG from green corridor framework

[5] Silk Alliance membership, which does not exclude LNG from green corridor framework

[6] No interim targets or substantive discussion of alternative fuels

MAERSK

ZERO-EMISSION SHIPPING

REPORT CARD

76.5
100

B

APM-Maersk earned 76.5 / 100 available points, or an overall "B" grade, 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. Maersk earned a "C" on ending port pollution, a "C" on Abandon Dirty Ships, and an "A" on "Put Zero at the Helm."

Denmark-based APM-Maersk operates a worldwide fleet of tankers, supply ships, and terminals. Maersk is the largest shipping company in the world, and the second largest container shipping company after MSC. The company reported $82 billion in annual revenue for 2022. The shipping industry is expected to grow from $2.2 trillion in 2021 to $4.2 trillion by 2031 due to a 7% compound annual growth rate (CAGR) driven by the expansion of e-commerce.

Maersk is not only the largest shipping company, it is also the best performing carrier in Ship it Zero's 2023 Report Card. APM-Maersk has made numerous commitments covering its ocean, inland transportation, terminals, and logistics services operations, all of which have repercussions for both climate change and the public health of port communities. For example, Maersk is an active member of Alliance for Clean Air. It also committed to a 50% reduction in greenhouse gas emission intensity from 2020 baseline by 2030, and a minimum of 25% of ocean cargo transported with green fuels by 2030. Overall, Maersk is committed to a 70% reduction in absolute emissions by 2030 in Scope 1 and 2 (compared to 2020) and net zero by 2040 across all scopes — the port industry's most ambitious target to date. While these are comparatively strong targets, it is important to note that 2020 was a year of exceptional growth in the container shipping sector due to increases in e-commerce. Maersk's decision to choose 2020 as its baseline results in weaker reduction targets as compared to choosing a pre-pandemic baseline year.

Maersk is a founding member of the First Movers Coalition. As a member, it states that it is committed to "at least 5% of our deep-sea shipping will be powered by zero-emission fuels by 2030, enabled by ships capable of using zero-emission fuels." Maersk's own target of 25% of ocean cargo transported by green fuels by 2030 is far stronger than that of the First Movers Coalition. Members of the First Movers Coalition also commit to use zero-emission fuels in newbuild & retrofitted zero-emission vessels.

Maersk backs up commitments with action. For example, through The First Movers Coalition, Maersk is helping to facilitate a range of collaborations and mechanisms to support companies in fulfilling their purchasing commitments. In January 2022, Maersk launched an initiative to deliver the world's first full-scale offshore vessel charging station at an offshore wind farm to support the decarbonisation of the maritime industry by eliminating idling emissions. In 2021, Maersk became the first container shipping company to order "green" methanol enabled vessels, the first of which was delivered in April 2023, and secured green methanol for its maiden voyage in June 2023. Larger "green methanol" vessels will be delivered in 2024.

In 2022, Maersk signed a landmark green fuels agreement for the maritime industry. Maersk views "green methanol" as the only scalable green fuel option this decade. For e-methanol, Maersk will only be using biogenic CO_2 as feedstock and combine it with hydrogen to produce the methanol. Maersk is also leading on electrification of terminal operations and inland truck transportation. Maersk is active in multi-stakeholder forums such as the Smart Freight Centre, Clean Cargo and Road Freight Zero. Finally, Maersk has an outstanding level of disclosure and transparency.

APM-Maersk has demonstrated remarkable leadership towards decarbonization, but there is always room for improvement. Maersk is no different. In addition to continuing to implement its many policy commitments, Maersk should increase its level of ambition by revising its targets to use a pre-pandemic baseline year. Ship It Zero also urges Maersk to set benchmarks for upgrading its fleet with efficiency and ZEV retrofits and set benchmarks for reducing or eliminating criteria air pollution (nitrogen oxides, sulfur oxides, particulate matter, ozone, and carbon monoxide). It should offer slow steaming options to its customers and end its use of scrubbers. We encourage Maersk to be more transparent by adding NOx and SOx to its emission dashboard, and reporting its shore power use. Finally, Maersk's absolute emissions increased from 2022-2023, and Maersk must reverse this trend to continue to demonstrate leadership.

SHIP IT ZERO

MAERSK

ZERO-EMISSION SHIPPING

REPORT CARD

76.5
100

B

End Port Pollution Now | TOTAL SCORE: 25.5

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	**10.5**	**8**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	2.5[1]
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	2
• Commitment to using shore power/ZEV offshore charging stations	1	1
• Publicly commiting to prioritize shore power-ready/green ports	1	1
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	1
• Founding member (First Movers, Getting to Zero)	0.5	0.5
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**6**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5[2]
• Investment in or implementation of zero-emission offshore charging stations	0.5	0.5[3]
• Implementation of a plan to reduce air pollution and clean air for port communities	2	1[4]
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**7**
• Public support for policy or regulatory measures to reduce port pollution	4	4[5]
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	3	3[6]
End Port Pollution Now: Transparency (30% of category grade)	**10.5**	**4.5**
• Public disclosure of progress toward criteria air pollution reduction benchmarks	7	3.5[7]
• Broken down by vessel and route	1	0[8]
• Public disclosure of shore power use	2.5	1[9]

Abandon Dirty Ships | TOTAL SCORE: 18.5

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**5.5**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	2.5[10]
• Commitment to switch to readily available cleaner burning fuels	3.5	2[11]
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	1[12]
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	—

[1] Discuss reducing without specific benchmarks
[2] Terminal decarbonization
[3] Offshore charging pilot
[4] Talk about importance of reducing port pollution and mention impact on human health
[5] Public statements on importance of regulation in spurring innovation and port decarbonization
[6] Green corridor; offshore charging
[7] NOX/SOX reporting, no specific benchmarks
[8] Does not appear that their emissions dashboard includes NOX/SOX
[9] Reporting of total electricity use but not specific to shore power
[10] Lots of decarbonization efforts, 70% scope 1 and 2 reduction but based on 2020 baseline
[11] Biofuels used in EcoDelivery program
[12] Efficiency retrofitting

MAERSK

ZERO-EMISSION SHIPPING

REPORT CARD

76.5
100

B

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**-1**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	2[13]
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	1[14]
• Offering slow steaming options for customers	1	0[15]
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	-2
• Bonus for absolute emissions reduction	Bonus +2	—
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**6**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	2
• Publicly reject HFO, LNG and false solutions	3	3
• Advocate for rapid decarbonization through trade organizations	1	1
• Deduction for advocating for scrubber use	-2	—
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**8**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1[16]
◦ Fuel types and volumes consumed	3	3
◦ CO_2e emissions for entire fleet	4	4

Put Zero at the Helm | TOTAL SCORE: 32.5

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	**10.5**	**9**
• General climate commitment	9	7.5
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(1.5)
◦ No use of carbon offsets to meet goal	(1)	(1)
◦ Net Zero vs. Absolute Zero	(1)	(1)
◦ 2040 vs. 2050	(1)	(1)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(1)[17]
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(1)
◦ Mentions low- and zero-emission vessels	(1)	(1)
• Other	1.5	1.5
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0.5)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0.5)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0.5)

[13] Biofuels tracked through EcoDelivery and other future fuel options emphasized without a firm benchmark

[14] Maersk emphasizes retrofitting but without a firm benchmark

[15] Not mentioned in ESG; media reports suggest Maersk is resistant to slow steaming

[16] Annual updates but not overall numbers

[17] EcoDelivery

MAERSK

ZERO-EMISSION SHIPPING

REPORT CARD

76.5
100

B

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**8**
• Ships	3	3
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(1)	(1)
◦ Deduction for number of LNG newbuilds or leases	(-2)	—
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(1)	(1)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(1)	(1)
• Fuels	3	4
◦ Bunkering contracts for zero-emission fuels	(1)	(1)
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(1)	(0)
◦ Using MGO/hybrid-powered vessels	(1)	(1)
◦ Bonus for green fuel contracts	(Bonus +2)	(+2)
• Efficiency	1	1
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**5**
• Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	3
• 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)	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**	**10.5**
• 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	6.5
• Annual 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	4	4

ZERO-EMISSION SHIPPING
REPORT CARD

57.5
100

D

CMA CGM earned 57.5 / 100 possible points on this inaugural Ship It Zero report card, earning a D overall. 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. CMA CGM earned a C in ending port pollution; a D in abandoning dirty ships; and a D in putting zero at the helm.

CMA CGM is the world's third largest container shipping line. Its headquarters are in France, and it has presence in 160 countries. The company is attempting to position itself as an end-to-end logistics provider through expansions into land and air freight. Although its quarterly profits have recently declined from its COVID boom highs, it is still reporting over a billion USD in profits each quarter. This is approximately 36-37% greater than its pre-pandemic profits. It. Its significant investments in liquefied fossil gas (LNG) vessels and pollution conversion devices — referred to by industry as Exhaust Gas Cleaning Systems or scrubbers — drastically reduced its score.

CMA CGM's strongest performance is in the "End Port Pollution Now" category, in which it earned a C. The company has committed to powering its 700 warehouses and 50 port terminals with low and emission-free energy from wind, solar, hydrogen, and biomass. Although Ship It Zero does not support the use of biomass, as it is not a scalable solution and still produces significant amounts of air and climate pollution, we applaud its efforts to convert its operations to wind and solar.

CMA CGM has made significant investments in the electrification of its land and ocean fleets. Connecting vessels to the onshore electrical grid (shore power) while at berth is perhaps the single most impactful step ocean carriers can take to reduce air pollution, as it eliminates the need to run the ship engines while in port. Ocean vessels must not only be equipped to connect to shore power, but onshore power must also be available at the terminal for the ship to access. CMA CGM has made significant investment in retrofitting existing ocean vessels and ensuring its new build ships are shore power equipped. As of 2022, 56% of its ocean fleet is shore power equipped. CMA CGM is also working to install shore power at its terminals for these vessels. In addition, the company has recently made investments in electrification pilot projects for its truck and light-duty vehicle fleets.

CMA CGM performed fairly well on advocacy across grading categories. It publicly supports the European Commission Green Deal and green shipping corridors, both of which will dramatically reduce port air pollution. It also publicly supports the European Commission Fit-for-55, which aims to reduce greenhouse gas emissions by 55% from 1990 levels by 2030.

CMA CGM has recently announced major investments in methanol fueled vessels.

While Ship It Zero applauds these efforts, these were not sufficient to overcome the points lost as a result of its investments in LNG vessels and scrubbers. For example, in April 2022, CMA CGM Group announced an agreement to ship 40,000 TEUs of household appliances through CMA CGM's "Cleaner Energy LNG" solution, referring to it as a "sustainable" "low-carbon offering." Unfortunately, that is not the case.

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.

The shipping and fossil fuel industries often point to lower emissions of some air pollutants (NOx, SOx, and particulate matter) as benefits of the use of LNG. While these particular pollutants may be reduced, they are not eliminated. Further, the methane releases are a precursor to ground level ozone when the gas reacts with sunlight, contributing to smog and causing damage to the human respiratory system. Children are the most vulnerable to its health impacts.

While LNG is primarily methane (CH_4), the concentrations vary from between 70-99% depending on the feedstock. Other hydrocarbons commonly found in LNG are ethane, butane, and propane. Butane and propane are both categorized as Very Volatile Organic Compounds (VVOC) by the United States Environmental Protection Agency, readily reacting with sunlight to form ground level ozone.

In addition, the incomplete combustion of both methane and propane have been shown to produce benzene, carbon monoxide, and formaldehyde. While these pollutants are all hazardous to human health, benzene raises significant concerns as it is a known human carcinogen. There is no known safe level for human exposure to benzene.

CMA CGM also notes that 15% of its fleet have hybrid scrubbers installed. 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.

The hybrid systems CMA CGM has installed on its vessels can operate in either closed-loop or open-loop mode. These are more flexible, allowing the company to comply as increasing numbers of countries and ports around the world ban the discharge of scrubber wastes. However, holding wastes onboard and offloading for treatment onshore is expensive, and thus it is reasonable to assume that hybrid systems are primarily operated in open-loop mode.

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.

CMA CGM has also included some biofuels in its portfolio. The Ship It Zero campaign 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. The company was given partial credit in the "Abandon Dirty Ships" category for this effort.

Ship It Zero calls on CMA CGM to take immediate action to end its investments in LNG newbuild ships and urges the company to rapidly transition its existing fleet to zero-emission fuels and technologies. This is the single most important step the company can take to meet its decarbonization goals.

It is also a smart business move in light of the greenhouse gas reduction strategy agreed by the United Nations International Maritime Organization (IMO), which regulates international ocean shipping, in July 2023. The IMO set targets of a 30% reduction in maritime GHG emissions by 2030, 80% by 2040, and 100% by 2050. For the first time, the IMO has included the full suite of greenhouse gasses in its reduction targets, rather than only CO_2. It is also considering emissions on a life-cycle basis. This means that methane emissions must be rapidly cut. It also means that emissions throughout the process — from the point of extraction to its combustion in ship engines — will be included. In this international regulatory environment, continued reliance on fossil gas poses serious risks of near-future stranded assets.

Ship It Zero also urges CMA CGM to meet the ambitions of its competitors, and commit to achieving zero-emissions across its global fleet by 2040. We also encourage CMA CGM to explore joining ambitious international initiatives to decarbonize shipping, such as the First Movers Coalition or Getting to Zero.

SHIP IT ZERO

CMA CGM

ZERO-EMISSION SHIPPING REPORT CARD

57.5
100

D

End Port Pollution Now | TOTAL SCORE: 23

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	**10.5**	**6.5**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	2.5[1]
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	2
• Commitment to using shore power/ZEV offshore charging stations	1	1
• Publicly commiting to prioritize shore power-ready/green ports	1	1[2]
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	0
• Founding member (First Movers, Getting to Zero)	0.5	0
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**4.5**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5[3]
• Investment in or implementation of zero-emission offshore charging stations	0.5	0
• Implementation of a plan to reduce air pollution and clean air for port communities	2	0[4]
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**7**
• Public support for policy or regulatory measures to reduce port pollution	4	4
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	3	3[5]
End Port Pollution Now: Transparency (30% of category grade)	**10.5**	**5**
• Public disclosure of progress toward criteria air pollution reduction benchmarks	7	3.5[6]
• Broken down by vessel and route	1	0
• Public disclosure of shore power use	2.5	1.5[7]

Abandon Dirty Ships | TOTAL SCORE: 15.5

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**4**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	3[8]
• Commitment to switch to readily available cleaner burning fuels	3.5	2[9]
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	1
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-2

[1] Discuss reducing without specific benchmarks
[2] Committed to building shore power at their terminals
[3] Terminal decarbonization; green corridor
[4] CMA CGM presents LNG as solution to SOX/NOX/PM emissions, which would produce different air pollutants
[5] Pushing Shanghai port to accelerate shore power use
[6] NOX/SOX reporting, no specific benchmarks
[7] Number and percentage of fleet listed but no specific information on shore power use
[8] 55% reduction by 2030 below 1990 levels
[9] Biofules

ZERO-EMISSION SHIPPING
REPORT CARD

57.5
100

D

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**2.5**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	1.5[10]
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	1[11]
• Offering slow steaming options for customers	1	0
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	—
• Bonus for absolute emissions reduction	Bonus +2	+2
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**1**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	2
• Publicly reject HFO, LNG and false solutions	3	0
• Advocate for rapid decarbonization through trade organizations	1	1
• Deduction for advocating for scrubber use	-2	-2
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**8**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1[12]
◦ Fuel types and volumes consumed	3	3
◦ CO_2e emissions for entire fleet	4	4

Put Zero at the Helm | TOTAL SCORE: 19

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	**10.5**	**5**
• General climate commitment	9	4
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(2)[13]
◦ No use of carbon offsets to meet goal	(1)	(0)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(0.5)[14]
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(0.5)[15]
◦ Mentions low- and zero-emission vessels	(1)	(1)[16]
◦ Other	1.5	1
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0.5)[17]
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0.5)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0)

[10] Biofuels, no real benchmark
[11] CMA CGM emphasizes retrofitting but without a firm benchmark
[12] Talk about retrofits but specifics are lacking
[13] Support 55% reduction by 2030
[14] Over-reliance on LNG
[15] Increasing shore power capability for fleet
[16] Green methanol newbuilds
[17] Support for Fit-for-55

CMA CGM

ZERO-EMISSION SHIPPING REPORT CARD

57.5
100

D

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**5**
◦ Ships	3	1
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(1)	(1)
◦ Deduction for number of LNG newbuilds or leases	(-2)	(-2)
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(1)	(1)[18]
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(1)	(1)[19]
◦ Fuels	3	3
◦ Bunkering contracts for zero-emission fuels	(1)	(1)[20]
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(1)	(1)[21]
◦ Using MGO/hybrid-powered vessels	(1)	(1)[22]
◦ Bonus for green fuel contracts	(Bonus +2)	
◦ Efficiency	1	1
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**1**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	3
◆ 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)	4	0
◆ 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**	**8**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	4[23]
◆ Annual 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	4	4

[18] Energy Observer 2 and other ZEV projects
[19] Green corridor
[20] Bunkering
[21] Fund for Energies
[22] 32 dual-fuel vessels, but emphasis on LNG and only some biofuel use to date
[18] CMA CGM provides a detailed pathway, but highly reliant on LNG and target date is 2050

ZERO-EMISSION SHIPPING
REPORT CARD

46.5
100

D

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 CO_2e 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 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. 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.

SHIP IT ZERO

ZERO-EMISSION SHIPPING REPORT CARD

COSCO SHIPPING

46.5
100

D

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**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	2.5
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	2
• Commitment to using shore power/ZEV offshore charging stations	1	1
• Publicly commiting to prioritize shore power-ready/green ports	1	1
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	0
• Founding member (First Movers, Getting to Zero)	0.5	0
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**4.5**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5[1]
• Investment in or implementation of zero-emission offshore charging stations	0.5	0
• Implementation of a plan to reduce air pollution and clean air for port communities	2	0
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**3**
• Public support for policy or regulatory measures to reduce port pollution	4	3
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	3	0
End Port Pollution Now: Transparency (30% of category grade)	**10.5**	**5**
• Public disclosure of progress toward criteria air pollution reduction benchmarks	7	3.5
• Broken down by vessel and route	1	0
• Public disclosure of shore power use	2.5	1.5

Abandon Dirty Ships | TOTAL SCORE: 13

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**2.5**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	1.5[2]
• Commitment to switch to readily available cleaner burning fuels	3.5	1[3]
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	2
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-2

[1] Some shore power investment; green corridor

[2] 12% GHG emissions reduction by 2030 based on 2019

[3] Biofuels trial

ZERO-EMISSION SHIPPING
REPORT CARD

COSCO SHIPPING

46.5
100

D

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**2.5**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	1.5[4]
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	1[5]
• Offering slow steaming options for customers	1	0
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	—
• Bonus for absolute emissions reduction	Bonus +2	+2
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**0**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	0
• Publicly reject HFO, LNG and false solutions	3	0
• Advocate for rapid decarbonization through trade organizations	1	0
• Deduction for advocating for scrubber use	-2	—
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**8**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1[6]
◦ Fuel types and volumes consumed	3	3
◦ CO_2e emissions for entire fleet	4	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**
◦ General climate commitment	9	3.5
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(0)
◦ No use of carbon offsets to meet goal	(1)	(1)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(0.5)
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(1)
◦ Mentions low- and zero-emission vessels	(1)	(1)
◦ Other	1.5	0
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0)

[4] Priority with no benchmarks
[5] Priority with no benchmarks
[6] Talk about retrofits but specifics are lacking

COSCO SHIPPING

ZERO-EMISSION SHIPPING REPORT CARD

46.5
100

D

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7 WRONG**	**3**
◦ Ships	3	0
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(1)	(1)
◦ Deduction for number of LNG newbuilds or leases	(-2)	(-2)
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(1)	(0)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(1)	(1)
◦ Fuels	3	2
◦ Bunkering contracts for zero-emission fuels	(1)	(1)
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(1)	(1)
◦ Using MGO/hybrid-powered vessels	(1)	(0)
◦ Bonus for green fuel contracts	(Bonus +2)	—
◦ Efficiency	1	1
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**3**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	3
◆ 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)	4	0
◆ Deduction for membership in the Society for Gas as a Marine Fuel	-2	—
Put Zero at the Helm: Transparency (30% of category grade)	**10.5**	**5**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	1[7]
◆ Annual 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	4	4

[7] No real pathway but some discussion of greener newbuilds

EVERGREEN

ZERO-EMISSION SHIPPING REPORT CARD

39.5 / 100

F

Evergreen earned 39.5 / 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. Evergreen earned a D in the ending port pollution category; an F in abandoning dirty ships; and an F in putting zero at the helm.

Evergreen Marine Corporation is the world's 6th-largest container shipping company and the largest in the global shipping hub of Taiwan. While Evergreen is taking steps to address port pollution, the company has significant room for improvement.

Evergreen has committed to a shore power-compatible fleet and invested in shore power at their own terminals, though they do not list specific targets for shore power compatibility. Evergreen's Corporate Social Responsibility (CSR) report notes the impact of air pollutants on local communities, and the company has received recognition from the Port of Vancouver for its pollution reduction efforts. However, the company does not list all of their criteria pollutants. Ship It Zero calls Evergreen to provide more specificity on its shore power use and the full emissions data for criteria pollutants; in addition to its reporting on its emissions of nitrogen oxides and sulfur oxides, the company also needs to report particulate matter, ozone, and carbon monoxide emissions. Evergreen should also use its position as Taiwan's largest shipping carrier to advocate for regulations to reduce port pollution and partner with other stakeholders on zero-emission infrastructure projects.

Evergreen has an interim greenhouse gas emissions reduction target of 50% by 2030 from a 2008 baseline. While the company has invested significantly in efficiency retrofits and operational measures like slow steaming, Evergreen should invest more in readily available lower emission fuels. The company's CSR report only mentions a biofuels project.

The company also lost points for relying on Exhaust Gas Cleaning Systems (i.e., "scrubbers"). 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.

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.

Evergreen received credit for reporting their fleet's total CO_2e emissions and fuel use. However, Ship It Zero urges Evergreen to advocate for stronger greenhouse gas reduction standards, push for rapid decarbonization through industry groups, and publicly reject HFO and false solutions like liquified natural gas (LNG).

Evergreen has publicly committed to carbon neutrality by 2050, which is too long a timeframe given the urgency of the climate crisis. Moreover, the company's CSR report states that the carbon emissions of its fleet "will be further reduced by 70% in 2050," suggesting that Evergreen's carbon neutrality strategy will be highly reliant on carbon offsets. Evergreen has methanol newbuilds on the order book, but we urge the company to create a detailed pathway toward decarbonization and provide meaningful updates on their progress toward this goal. The company should also join industry-led decarbonization efforts and express support for green shipping corridor development.

Ship It Zero calls on Evergreen to commit to a 70% reduction in absolute greenhouse gas emissions, without the use of carbon credits, by 2030. This would be in line with the Intergovernmental Panel on Climate Change urgent call for global emissions across all sectors to be halved by that date. We also urge the company to reject false solutions like LNG and invest in zero-emission fuels and green newbuilds moving forward.

SHIP IT ZERO

EVERGREEN

ZERO-EMISSION SHIPPING REPORT CARD

39.5
100
F

End Port Pollution Now | TOTAL SCORE: 18.5

Performance Criteria	Possible Points	Company Score
End Port Pollution Now: Commitment (30% of category grade)	**10.5**	**6.5**
• Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping	5	2.5
• Commitment to converting fleet/ordering newbuilds that are shore power-compatible	2	2
• Commitment to using shore power/ZEV offshore charging stations	1	1
• Publicly commiting to prioritize shore power-ready/green ports	1	1
• Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)	1	0
• Founding member (First Movers, Getting to Zero)	0.5	0
End Port Pollution Now: Implementation Plan (20% of category grade)	**7**	**6.5**
• Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)	4.5	4.5[1]
• Investment in or implementation of zero-emission offshore charging stations	0.5	0
• Implementation of a plan to reduce air pollution and clean air for port communities	2	2[2]
End Port Pollution Now: Advocacy (20% of category grade)	**7**	**0**
• Public support for policy or regulatory measures to reduce port pollution	4	0
• Partnerships with carriers, ports, and regulators to ZEV infrastructure projects	3	0
End Port Pollution Now: Transparency (30% of category grade)	**10.5**	**5.5**
• Public disclosure of progress toward criteria air pollution reduction benchmarks	7	3.5[3]
• Broken down by vessel and route	1	0
• Public disclosure of shore power use	2.5	2[4]

Abandon Dirty Ships | TOTAL SCORE: 12

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Commitment (30% of category grade)	**9**	**4.5**
• Commitment to immediate (2023) reductions in GHG emissions from maritime shipping	3.5	2.5[5]
• Commitment to switch to readily available cleaner burning fuels	3.5	0
• Commitment to high efficiency retrofitting and operational measures like slow steaming for vessels	2	2
• Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	—

[1] Electrification/shore power at Evergreen terminals
[2] Significant focus on reducing criteria pollutants with mention of impact on community
[3] NOX/SOX reporting, no specific benchmarks
[4] Reporting on shore power use, but only at Evergreen terminals
[5] Lots of focus on efficiency on day-to-day level, but other commitments are lacking

EVERGREEN

ZERO-EMISSION SHIPPING REPORT CARD

39.5/100

F

Performance Criteria	Possible Points	Company Score
Abandon Dirty Ships: Implementation Plan (20% of category grade)	**6**	**1.5**
• Benchmarks for percentage of fleet using short-term cleaner fuels and lower-carbon technologies (e.g., responsibly sourced biofuels)	3	1[6]
• Benchmarks for percentage of existing fleet with efficiency & hybrid retrofits	2	1.5
• Offering slow steaming options for customers	1	1
• Deduction for scrubber use	-2	-2
• Deduction for absolute emissions increasing despite commitments	-2	—
• Bonus for absolute emissions reduction	Bonus +2	—
Abandon Dirty Ships: Advocacy (20% of category grade)	**6**	**-2**
• Publicly support strengthening the level of ambition of the GHG reduction policies	2	0
• Publicly reject HFO, LNG and false solutions	3	0
• Advocate for rapid decarbonization through trade organizations	1	0
• Deduction for advocating for scrubber use	-2	-2
Abandon Dirty Ships: Transparency (30% of category grade)	**9**	**8**
• Annual public reporting of fleet metrics, including:		
◦ Propulsion technologies and efficiency retrofits	2	1[7]
◦ Fuel types and volumes consumed	3	3
◦ CO_2e emissions for entire fleet	4	4

Put Zero at the Helm | TOTAL SCORE: 9

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Commitment (30% of category grade)	**10.5**	**2.5**
• General climate commitment	9	2.5
◦ Absolute CO_2e reduction benchmarks for 2025, 2030 and 2035	(3)	(1.5)[8]
◦ No use of carbon offsets to meet goal	(1)	(0)
◦ Net Zero vs. Absolute Zero	(1)	(0)
◦ 2040 vs. 2050	(1)	(0)
◦ Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)	(1)	(0)
◦ Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels	(1)	(1)[9]
◦ Mentions low- and zero-emission vessels	(1)	(0)
◦ Other	1.5	0
◦ Expressions of public support for zero-emission shipping development	(0.5)	(0)
◦ Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)	(0.5)	(0)
◦ Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)	(0.5)	(0)

[6] Biofuels projects

[7] Some information is available, but no comprehensive reporting

[8] Interim goal of 50% reduction by 2030 using 2008 baseline

[9] Emphasis on shore power

EVERGREEN

ZERO-EMISSION SHIPPING REPORT CARD

39.5
100
F

Performance Criteria	Possible Points	Company Score
Put Zero at the Helm: Implementation Plan (20% of category grade)	**7**	**3**
◦ Ships	3	1
◦ Number of orders or leases for new ZEVs and ZEV-ready ships	(1)	(1)[10]
◦ Deduction for number of LNG newbuilds or leases	(-2)	—
◦ Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies	(1)	(0)
◦ Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors	(1)	(0)
◦ Fuels	3	1
◦ Bunkering contracts for zero-emission fuels	(1)	(1)
◦ Investment in R&D in fossil-free ZEV fuels and propulsion technologies	(1)	(0)
◦ Using MGO/hybrid-powered vessels	(1)	(0)
◦ Bonus for green fuel contracts	(Bonus +2)	—
◦ Efficiency	1	1
◦ Implement efficiency measures (e.g., hull coatings, routes, etc.)		
Put Zero at the Helm: Advocacy (20% of category grade)	**7**	**0**
◆ Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration	3	0
◆ 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)	4	0
◆ Deduction for membership in the Society for Gas as a Marine Fuel	-2	—
Put Zero at the Helm: Transparency (30% of category grade)	**10.5**	**3.5**
◆ 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_2e reduction targets and achieve a 100% zero emission fleet by 2040	6.5	1[11]
◆ Annual 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	4	2.5[12]

[10] Methanol new builds
[11] Only information on efficiency technologies; little information on long-term fuel strategy
[12] Insufficient reporting on fuel use and propulsion technologies