

### **ZERO-EMISSION SHIPPING** CMACGM REPORT CARD

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 I60 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<sub>4</sub>), 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.

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<sub>2</sub>. 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.





## **ZERO-EMISSION SHIPPING REPORT CARD**

End Port Pollution Now   TOTAL SCORE: 23		
Performance Criteria	Possible Points	Company Sco
End Port Pollution Now: Commitment (30% of category grade)	10.5	6.5
<ul> <li>Publicly-stated commitment to reduce/eliminate criteria air pollution (PM, NOX, SOX) from maritime shipping</li> </ul>	5	2.51
<ul> <li>Commitment to converting fleet/ordering newbuilds that are shore power-compatible</li> </ul>	2	2
<ul> <li>Commitment to using shore power/ZEV offshore charging stations</li> </ul>	1	1
<ul> <li>Publicly commiting to prioritize shore power-ready/green ports</li> </ul>	1	2
<ul> <li>Member of corporate initiatives to reduce air pollution (First Movers, Getting to Zero)</li> </ul>	I	0
<ul> <li>Founding member (First Movers, Getting to Zero)</li> </ul>	0.5	0
<b>End Port Pollution Now: Implementation Plan</b> (20% of category grade)	7	4.5
<ul> <li>Investment in or implementation of ZEV port infrastructure (e.g., bunkering ZE fuels, shore power)</li> </ul>	4.5	4.5 <sup>3</sup>
Investment in or implementation of zero-emission offshore charging stations	0.5	0
<ul> <li>Implementation of a plan to reduce air pollution and clean air for port communities</li> </ul>	2	04
End Port Pollution Now: Advocacy (20% of category grade)	7	7
Public support for policy or regulatory measures to reduce port pollution	4	4
<ul> <li>Partnerships with carriers, ports, and regulators to ZEV infrastructure projects</li> </ul>	3	35
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 <sup>6</sup>
<ul> <li>Broken down by vessel and route</li> </ul>	1	0
<ul> <li>Public disclosure of shore power use</li> </ul>	2.5	1.57

**Abandon Dirty Ships TOTAL SCORE: 15.5** 

**Performance Criteria** 

### **Possible Points**

9

**Company Score** 

4

57.5

٠	Commitment to immediate (2023) reductions in GHG emissions from	3.5	3 <sup>8</sup>
	maritime shipping		
•	Commitment to switch to readily available cleaner burning fuels	3.5	29
٠	Commitment to high efficiency retrofitting and operational measures like	2	1
	slow steaming for vessels		
٠	Deduction for commitments that rely on LNG (which is a false solution) and carbon offsets	-2	-2

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



# ZERO-EMISSION SHIPPING REPORT CARD

57.5

100

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

Put Zero at the Helm | TOTA

**TOTAL SCORE: 19** 

Performance Criteria	Possible Points	Company Score
<b>Put Zero at the Helm: Commitment</b> (30% of category grade)	10.5	5
General climate commitment	9	4
<ul> <li>Absolute CO<sub>2</sub>e reduction benchmarks for 2025, 2030 and 2035</li> </ul>	(3)	(2) <sup>13</sup>
<ul> <li>No use of carbon offsets to meet goal</li> </ul>	(1)	(0)
<ul> <li>Net Zero vs. Absolute Zero</li> </ul>	(1)	(0)
• 2040 vs. 2050	(1)	(0)
<ul> <li>Commitment to move freight onto low- and zero-emission vessels (with time-bound targets)</li> </ul>	(1)	(0.5) <sup>14</sup>
<ul> <li>Set short-term targets for moving increasing volumes of cargo on cleaner ships, i.e., MGO/hybrid-powered vessels, shore power-equipped vessels</li> </ul>	(1)	(0.5) <sup>15</sup>
Mantiana law, and zero amission vessels	(1)	

	<ul> <li>Mentions low- and zero-emission vessels</li> </ul>	(1)	
0	Other	1.5	(1)16
	<ul> <li>Expressions of public support for zero-emission shipping development</li> </ul>	(0.5)	I
	<ul> <li>Member of Science-Based Target Initiative (a We Mean Business Coalition commitment)</li> </ul>	(0.5)	(0.5) <sup>17</sup>
	<ul> <li>Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World</li> </ul>	(0.5)	(0.5)
	Economic Forum and Friends of Ocean Action)		(0)

- <sup>10</sup> Biofuels, no real benchmark
- $^{\ensuremath{\text{11}}}$  CMA CGM emphasizes retrofitting but without a firm benchmark
- <sup>12</sup> Talk about retrofits but specifics are lacking
- <sup>13</sup> Support 55% reduction by 2030
- <sup>14</sup> Over-reliance on LNG
- <sup>15</sup> Increasing shore power capability for fleet
- <sup>16</sup> Green methanol newbuilds
- <sup>17</sup> Support for Fit-for-55

# ZERO-EMISSION SHIPPING REPORT CARD

57.5

100

Performance Criteria	Possible Points	Company Score
<b>Put Zero at the Helm: Implementation Plan</b> (20% of category grade)	7	5
<ul> <li>Ships</li> <li>Number of orders or leases for new ZEVs and ZEV-ready ships</li> <li>Deduction for number of LNG newbuilds or leases</li> <li>Working with other carriers and/or entering conglomerations/partnerships on the development of ZEV technologies</li> <li>Working with ports and/or investing financially in ZEV infrastructure and/or shipping corridors</li> </ul>	3 (1) (-2) (1) (1)	 (1) (-2) (1) <sup>18</sup> (1) <sup>19</sup>
<ul> <li>Fuels         <ul> <li>Bunkering contracts for zero-emission fuels</li> <li>Investment in R&amp;D in fossil-free ZEV fuels and propulsion technologies</li> <li>Using MGO/hybrid-powered vessels</li> <li>Bonus for green fuel contracts</li> </ul> </li> <li>Efficiency         <ul> <li>Implement efficiency measures (e.g., hull coatings, routes, etc.)</li> </ul> </li> </ul>	3 (I) (I) (Bonus +2) I	3 (1) <sup>20</sup> (1) <sup>21</sup> (1) <sup>22</sup> –
Put Zero at the Helm: Advocacy (20% of category grade)	7	1
<ul> <li>Publicly support the rapid development of green (ZEV) shipping corridors for high-volume routes per the Clydebank Declaration</li> </ul>	3	3
<ul> <li>Join First Movers Coalition and/or Getting to Zero (GTZ) Coalition (managed by the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action)</li> </ul>	4	0
<ul> <li>Deduction for membership in the Society for Gas as a Marine Fuel</li> </ul>	-2	-2
<b>Put Zero at the Helm: Transparency</b> (30% of category grade)	10.5	8
<ul> <li>Publish ZEV transition pathway for fleet with short-, mid- and long-term fuels and/or technologies that will allow the carrier to meet both interim absolute CO<sub>2</sub>e reduction targets and achieve a 100% zero emission fleet by 2040</li> </ul>	6.5	4 <del>2</del> 3
<ul> <li>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</li> </ul>	4	4

- <sup>18</sup> Energy Observer 2 and other ZEV projects
- <sup>19</sup> Green corridor

**CMA CGM** 

- <sup>20</sup> Bunkering
- <sup>21</sup> Fund for Energies
- <sup>22</sup> 32 dual-fuel vessels, but emphasis on LNG and only some biofuel use to date
- <sup>18</sup> CMA CGM provides a detailed pathway, but highly reliant on LNG and target date is 2050