

Hecla

Emissions Management

The Inclusion of Shipping in the EU ETS

December 2022

The expansion of the European Union Emissions Trading System to include maritime transport: Scope, Application and Perspective.

This report provides a summary of the announcement made on Thursday December 1st 2022 and concerns the European Union's unified amendments to Directive 2003/87/EC with the aim of strengthening the European Union (EU) Emissions Trading System (ETS) and extend it in line with the EU's increased climate ambition for 2030.

Amongst a raft of policy measures introduced as part of the "Fit For 55" climate and energy programme, the EU has expanded the application of the ETS to include maritime transport. This summary is intended to inform discussions on shipping's inclusion into the ETS and introduce Hecla Emissions Management, a joint venture between Affinity Financial Products (LLP) and Wilhelmsen Ship Management.

The ETS covers all 27 EU Member States as well as Iceland, Liechtenstein and Norway, who are members of both the European Economic Area (EEA) and the European Free Trade Association (EFTA). For the purposes of this report, and for ease of simplicity, we refer to all countries under the scope of the ETS as "Member States" and refer to the jurisdiction of the ETS as being the "EU".



The party responsible for the operation of the ship under the ISM Code is responsible for surrendering the allowances required for compliance.

- The "shipping company", defined as either the shipowner or the entity that has assumed responsibility for the ship under the ISM code, is responsible for surrendering the requisite allowances. However, it is not necessarily liable for the cost of those allowances.
- When another entity is responsible for purchasing the fuel or taking operational decisions that affect the CO₂ emissions of the ship, a binding clause should be included in such arrangements for the purpose of passing on the costs to that entity.

The geographic scope of the ETS expansion incorporates vessels on voyages both arriving at an EU port and departing from an EU port.

- All of the emissions generated by vessels performing voyages between EU ports, and emissions generated while at berth at an EU port, come under the scope of the ETS.
- Furthermore, allowances must be purchased and surrendered for half of the emissions generated by ships performing voyages arriving at an EU port from outside the EU ("inbound voyage"), and half of the emissions generated by ships on voyages that depart from an EU port and arrive at a non-EU port ("outbound voyage").

Shipping will be phased into the ETS from 2024, with more comprehensive inclusion by 2026.

- Shipping companies will be liable for 40% of their applicable emissions in 2024, increasing to 70% in 2025, and 100% in 2026 and every year thereafter.
- Shipping companies are not expected to receive any free allowances.

Non-CO₂ emissions caused by the maritime sector will be included: first under the MRV, then the ETS.

- From 2024, nitrous oxide (N₂O), soot and methane (CH₄) will be observed under the Monitoring, Reporting and Verification system.
- From 2026, those emissions will be priced into the ETS.

Punishments for non-compliance include penalty charges and blacklisting.

- Failure to surrender sufficient EUAs will result in an excess emissions penalty of ~€106/tCO₂. As well as this charge, unpaid emissions are rolled-over to the following year, when their corresponding allowances must still be acquired and surrendered.
- If a shipping company fails to comply for two consecutive years, they may be issued with an expulsion order, to be observed by all Member States until the shipping company has fulfilled its surrender obligations.

Regulatory Background

The European Union has unveiled its “Fit for 55” package of energy and climate laws aimed at cutting carbon emissions by 55% from 1990 levels by 2030 and achieving carbon neutrality by 2050. For the EU to achieve the latter target, a 90% reduction in transport emissions is needed by 2050.

As part of this “Fit for 55” policy package, the European Commission has announced its update to Directive 2003/87/EC, which builds upon the EU MRV system and incorporates the maritime industry into the ETS. The EU has said that it has acted “in light of the slow and insufficient progress made by IMO”.

The ETS is a mandatory cap-and-trade system which sets an overall cap on GHG emissions within a certain time period. Allowances, called, EUAs are auctioned amongst participants and the number of available allowances relative to total emissions creates a carbon price; the quantity of available allowances will decrease linearly towards the emissions reduction target.

The MRV system will continue to apply to ships above 5,000 gross tonnage in respect of CO₂ emissions released during their voyages from: (i) from an EU port to a non-EU port, (ii) to an EU port from a non-EU port, (iii) between EU ports and (iv) while the ship is at berth at an EU port.

The emission factors for marine fuels will remain constant between the MRV and the ETS:

Diesel/Gas Oil:	3.206 tCO ₂ per ton of fuel
Light Fuel Oil:	3.151 tCO ₂ per ton of fuel
Heavy Fuel Oil:	3.141 tCO ₂ per ton of fuel
LNG:	2.750 tCO ₂ per ton of fuel

Major Policy Points

Who is responsible for vessel emissions under the ETS?

The Directive states that **administering authorities** are responsible for ensuring that each **shipping company** surrenders a quantum of allowances equal to its total applicable emissions generated during the preceding calendar year.

A **shipping company** is defined as the shipowner or any other organization or person (such as a manager or bareboat charterer) that has assumed the responsibility for the operation of the ship from the shipowner and has agreed to take over all the duties and responsibilities of the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code).

However, the EU has recognised that the shipping company is not always responsible for purchasing the fuel or taking operational decisions that affect the CO₂ emissions of the ship (such as speed, route or choice of cargo carried). In that case, a **binding clause should be included in such arrangements for the purpose of passing on the costs so that the entity that is ultimately responsible for the decisions affecting the CO₂ emissions of the ship** is held accountable for covering the compliance costs paid by the shipping company under this Directive.

The **administering authority** will be either: (i) the EU Member State in which the shipping company is registered in, or (ii) in the case of a shipping company that is not registered in an EU Member State, the Member State with the greatest estimated number of port calls from voyages performed by that shipping company within the previous two years.

The EC will publish a list of shipping companies that have performed an ETS-applicable voyage, specifying the administering authority for each shipping company. This list shall be updated biennially.

What vessels and voyages fall under the scope of the system?

Requirements for surrendering allowances will apply to all ships above 5,000gt for half of the emissions generated by voyages departing from a Member State port and arriving at a port outside the EU, and half of emissions from ships performing voyages departing from a port outside of a Member State and arriving at a Member State port.

Furthermore, all emissions produced during intra-EU voyages and while a vessel is berthed at an EU port come under the scope of the expanded ETS.

Looking forward, this allows shipping to be brought into China’s ETS (and other regionalised systems) without the same emissions being counted twice. Each regionalised ETS can include 100% of port and intra-port emissions, and 50% of inbound and outbound emissions, creating a defacto global ETS.

EUA Price (€/t)



ETS Phase-in and Geographic Scope: Example

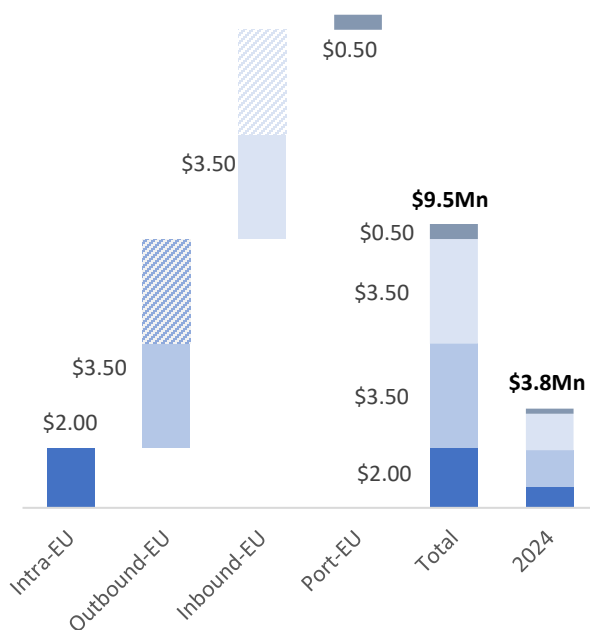
In the example below, a hypothetical fleet generated \$16.5m of CO₂ emissions from EU related voyages in the 2024 reporting year.

Under the ETS rules, the shipping company responsible for this fleet will only be liable for 50% of its to-EU and from-EU emissions, as well as 100% of its Intra-EU and EU Port emissions. As a result, its total carbon exposure is valued at \$9.5m.

However, in the first year of shipping's inclusion in the ETS, the shipping company will only be liable for 40% of its applicable verified emissions. Therefore, for 2024 the fleet would be surrender \$3.8m worth of allowances.

It should be noted that spot EUA prices are extremely volatile. Shipping companies and charterers are therefore exposed to both price changes and increased liability for their carbon emissions over the two-year phase-in period

2024 Worked Exposure Example (\$MM)



When will shipping be incorporated into the ETS?

To ensure market stability and assist with a smooth transition into the ETS for shipping, a phase-in period will be introduced. Therefore, the first year in which shipping companies will be liable for their emissions under the ETS will be 2024.

The obligation to surrender allowances will be gradually phased-in over the period from 2024 to 2026. In the first year of shipping's inclusion into the expanded ETS, shipping companies will be liable for only 40% of their verified emissions, increasing to 70% in 2024 and 100% in 2026.

Shipping companies are obliged to surrender allowances equal to the verified emissions of the ship in each calendar year within four months following the end of that year. As an example, the deadline to surrender allowances for the first year of shipping's inclusion into the ETS will be 30th April 2024.

During the phase-in period, fewer allowances are required to be surrendered than the total amount of verified emissions (60% in 2024, for example). In respect of this, and to mitigate against price distortion, the number of allowances not surrendered will be cancelled by the Market Stability Reserve (MSR).

The EC will publish a list of shipping companies that have performed an ETS-applicable voyage, specifying the administering authority for each shipping company. This list shall be updated biennially.

What measures will the EU take to combat non-compliance?

EU Member States will publish a list of shipping companies under their administration that are found to be in breach of their obligations. The Directive details two punitive measures for these companies; an Excess Emissions Penalty (EEP) and Expulsion Orders.

The Excess Emissions Penalty is a charge levied against shipping companies that do not surrender sufficient allowances by the 30th of April for the prior calendar year.

The EEP is currently set at ~€106/tCO₂ emissions that have not been covered by an EUA. The penalty amount will be revised annually in accordance with the EU Consumer Price Index (CPI). Payment of the EEP will not release the shipping company from the obligation to surrender a number of allowances equal to those excess emissions when surrendering allowances the following year.

Shipping companies that fail to comply with their ETS surrender requirements for two or more consecutive reporting periods may be issued Expulsion Orders, where other enforcement measures have failed to ensure compliance. The port authority of any Member State may issue this Order, and every other Member State (with the exception of the Member State who flag the ship is flying, if applicable) is thereafter obliged to refuse port entry to the ships under the responsibility of the non-compliant shipping company until it has fulfilled its surrender obligations.

Other points of note

- Shipping companies will not receive free allowances. The phase-in requirements are intended to be a compromise on this measure.
- The EU's Innovation Fund will be increased and will support investments in the decarbonisation of maritime transport, including research and development funding in alternative fuels such as hydrogen and ammonia, as well as zero-emission propulsion. However, EUA revenues generated specifically by shipping will not be earmarked for these purposes.
- Non-CO₂ emissions will be monitored in the MRV from 2024 with inclusion in the ETS from 2026. While N₂O emissions affect all vessels, CH₄ emissions will only affect LNG Carriers and dual-fuel vessels. Vessels will be assigned a CH₄ factor depending on their engine type, with high-pressure 2-stroke engines having the lowest factor, and 4-stroke engines having the highest factor.

Disclaimer

The information contained within this report is given in good faith based on the current market situation at the time of preparing this report and as such is specific to that point only. While all reasonable care has been taken in the preparation and collation of information in this report Hecla Emissions Management (and all associated and affiliated companies) does not accept any liability whatsoever for any errors of fact or opinion based on such facts.

Some industry information relating to the shipping industry can be difficult to find or establish. Some data may not be available and may need to be estimated or assessed and where such data may be limited or unavailable subjective assessment may have to be used.

No market analysis can guarantee accuracy. The usual fundamentals may not always govern the markets, for example psychology, market cycles and external events (such as acts of god or developments in future technologies) could cause markets to depart from their natural/usual course. Such external events have not been considered as part of this analysis. Historical market behaviour does not predict future market behaviour and shipping is an inherently high risk business. You should therefore consider a variety of information and potential outcomes when making decisions based on the information contained in this report.

All information provided by Hecla Emissions Management is without any guarantee whatsoever. Hecla Emissions Management or any of its subsidiaries or affiliates will not be liable for any consequences thereof.

This report is intended solely for the information of the email recipient account and must not be passed or divulged to any third parties whatsoever without the written permission of Hecla Emissions Management. Hecla Emissions Management accepts no liability to any third parties whatsoever. If permission is granted, you must disclose the full report including all disclaimers, and not selected excerpts which may be taken out of context.