EU ETS and the maritime sector

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The inclusion of the maritime sector into the EU ETS

On July 14, 2021, the Fit for 55 package was introduced by the European Commission to support the success of the European Green Deal. A notable aspect of the package was the suggestion to include the maritime sector in the EU ETS carbon scheme.

The Fit for 55 sets a new target for reducing ETS emissions by 62% (previously 43%) compared to 2005. This will be achieved through a linear reduction factor of 4.3% from 2024 to 2027 and 4.4% from 2028 to 2030.

On December 18, the EU Council and EU Parliament provisionally accepted the Commission's proposal. The agreement was later endorsed on February 8. The information presented in this paper is based on the original July 14 proposal, the text of the trialogue agreement on the EU Emission trading scheme dated February 8 this year and other publicly available information.

The EU ETS: A "cap and trade system" and the CBAM

The EU Emissions Trading System (ETS) operates on a "cap-and-trade" basis whereby the EU imposes a cap on the amount of CO2 that can be emitted, which is reduced annually. Companies must possess a European Emission Allowance (EUA) for every tonne of CO2 they release in a calendar year. At the end of each year, they must surrender sufficient allowances to account for their total emissions. The maritime sector must surrender the allowances by September of the following year.

Heavy industries have traditionally been given a set number of emissions allowances at no cost to level the playing field with non-EU businesses with less strict climate regulations. However, with the implementation of the CBAM (Cross Border Adjustment Mechanism), these free allowances will gradually be eliminated.

The phasing-out of free allocation under the EU ETS will co-occur as the CBAM's phasing-in from 2026-2034. Notably, the maritime industry will not receive any free allowances.

The Maritime sector – the details

Scope of vessels, timeline and phase-in:

Most large vessels will be in the scope for the EU ETS from the start of 2024. Big offshore vessels of 5,000 gross tonnages (GT) and above will be included in the 'MRV'[1] on the monitoring, reporting and verifying of CO2 emissions from maritime transport regulation from 2025 and in the EU ETS from 2027.

General cargo vessels and offshore vessels between 400-5,000 GT will be included in the MRV regulation from 2025, and their inclusion in EU ETS will be reviewed in 2026.
The obligations to surrender allowances will be phased-in gradually, starting with 40% for verified emissions from 2024, 70% for 2025 and 100% for 2026.

[1] The EU MRV (Monitoring, Reporting, Verification) is a mandatory monitoring, communication and verification system set up by the European Commission for ships over 5,000 GT travelling on one or more commercial routes (goods or passengers) to and from EU ports, regardless of their flag.

Which emissions will be included?

In 2024 the EU ETS will solely include CO2 emissions, whereas non-CO2 GHG emissions (methane and Nitrous Oxide) will be included in the MRV regulation from 2024 and the EU ETS from 2026.

Geographical scope and voyages:

The EU ETS will cover all emissions from intra-EU voyages and within EU ports, as will half of the emissions for journeys to or from a non-EU country. The Commission will provide a list of non-EU container transhipment ports within 300nm of an EU port that will be excluded from the "Port call" to avoid evasive behaviour. Hence, ships will also have to surrender 50% of their emissions for the leg arriving in these transhipment ports outside the EU and the leg from the transhipment port into the EU.

Table 1: Scope and timeline for EU ETS and EU MRV

	Set-up	2023	2024	2025	2026	2027	2028	2029 and onwards
Type of Vessel	ETS	n/a	Cargo & passengers			Cargo, passengers & offshore vessels		
	MRV	Cargo & passengers		Cargo, passengers & offshore vessels				
Size of Vessel	ETS	n/a	>5000 GT		>400 GT and offshore vessels 1)			
	MRV	>5000 GT		>400 GT (general cargo and offshore vessels)				
Geographical Scope	ETS	n/a	100 % intra EU/EEA, 50% in/out EU/EEA					
	MRV	100 % intra EU/EEA and 100% in/out of EU/EEA						100% both intra and in/out EU/EEA 2)
Phase-In timeline	ETS	n/a	40%	70%	100%			
	MRV	100%						
GHG scope	ETS	n/a	CO2		CO2, methane(CH4) and Nitrous Oxide(N2O)			
	MRV	CO2	CO2, methane(CH4) and Nitrous Oxide(N2O)					

1) To be discussed in 2026 2) To be decided in EU review before 2028

Source: GRM and EU Commission

Compliance and non-compliance

To operate legally, every company must be registered with an administering authority. For EU-based companies, the administering authority will be the member state of registration. For companies outside the EU, it will be the member state with the highest number of port calls from voyages performed by the ship company in the last two monitoring years. If the company has not traded in the EU during the last two years, the administering authority will be the member state of the first port call in the EU.

Shipping companies that fail to surrender allowances will be liable to an excess emissions penalty of EUR 100 mt and will still be responsible for surrendering the required allowances. Companies that fail to comply for two or more consecutive periods may be denied entry to the EU.

Who is responsible: Shipowner or operator?

Shipping companies must register and surrender emissions allowances. The shipping owner is ultimately responsible for surrendering the allowances, despite any contractual rights with parties like charterers who purchase bunkers. Notably, earlier versions of the EU ETS Directive had yet to rule out the possibility of holding charterers accountable for adhering to regulations. However, article 3gaa of the draft amended EU ETS directive says, “*The shipping company remains the responsible entity for surrendering allowances as required under Article 3ga and Article 12 of this Directive and for overall compliance with the provisions of national law transposing this Directive. Member States shall ensure that shipping companies under their responsibility comply with their obligations to surrender allowances, notwithstanding their entitlement to be reimbursed by the commercial operators for the costs arising from the surrender.*”

The EU Commission will release a list of shipping companies that must comply with the EU ETS Directive and identify the administering authority they must register with. This will probably be the authority of the Member State where they are based, or if they are based outside the EU, the Member State where their vessels visit most often.

Carbon content in bunker fuel

Bunker fuel’s carbon content varies by the specific grade and source. On average, 1 mt contains 0.85 to 0.90 mt of carbon. To calculate CO_2 emissions, a standard conversion factor of 3.67 metric tons of CO_2 per metric ton of fuel can be used. Consult fuel specifications or fuel suppliers for accurate carbon content information. Therefore, the corresponding CO_2 emissions would be:

CO_2 emissions = Carbon content * Conversion factor
CO_2 emissions = (0.85 to 0.90 mt) * 3.67 mt CO_2/t of carbon

This results in an approximate range of 3.11 to 3.30 mt of CO_2 emissions per metric ton of bunker fuel. Please note that the conversion factor may vary slightly depending on the specific composition of the bunker fuel and other factors. Additionally, note that this conversion only accounts for CO_2 emissions and does not consider other greenhouse gases or pollutants.

How to obtain EU ETS allowances and hedge EUA risks

To obtain emission allowances, buyers can participate in auctions hosted by the European Energy Exchange (EEX), appointed by the EU Commission to handle this. Additionally, allowances can be traded bilaterally or through European Emission Allowances (EUAs) derivatives. The EUA futures market at ICE ENDEX has grown in importance and is considered highly liquid. The December futures contracts offer the best liquidity and highest outstanding amounts. Companies exposed to European Emission Allowances (EUA) can consider hedging the risks.

Global Risk Management can help you and your company trade the EUA derivatives and cover your risks. We have different tools and can create tailor-made risk management to match the company’s exposure in the best possible way. Do you want to know more? Get in contact and learn more about how we can help you.

Biofuels and the EU ETS

The EU ETS permits the usage of a zero CO_2 emissions factor for biofuels and renewable fuels that meet sustainability and GHG emissions-saving standards under the EU’s Renewable Energy Directive (RED).

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