

# EU-ETS

THE EUROPEAN EMISSION TRADING SYSTEM

Version 2.1 March 2024



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# EU EMISSION TRADING SYSTEM

## Definition

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The European Union has decided to include shipping in the EU Emission Trading System (EU ETS).

## What is EU-ETS?

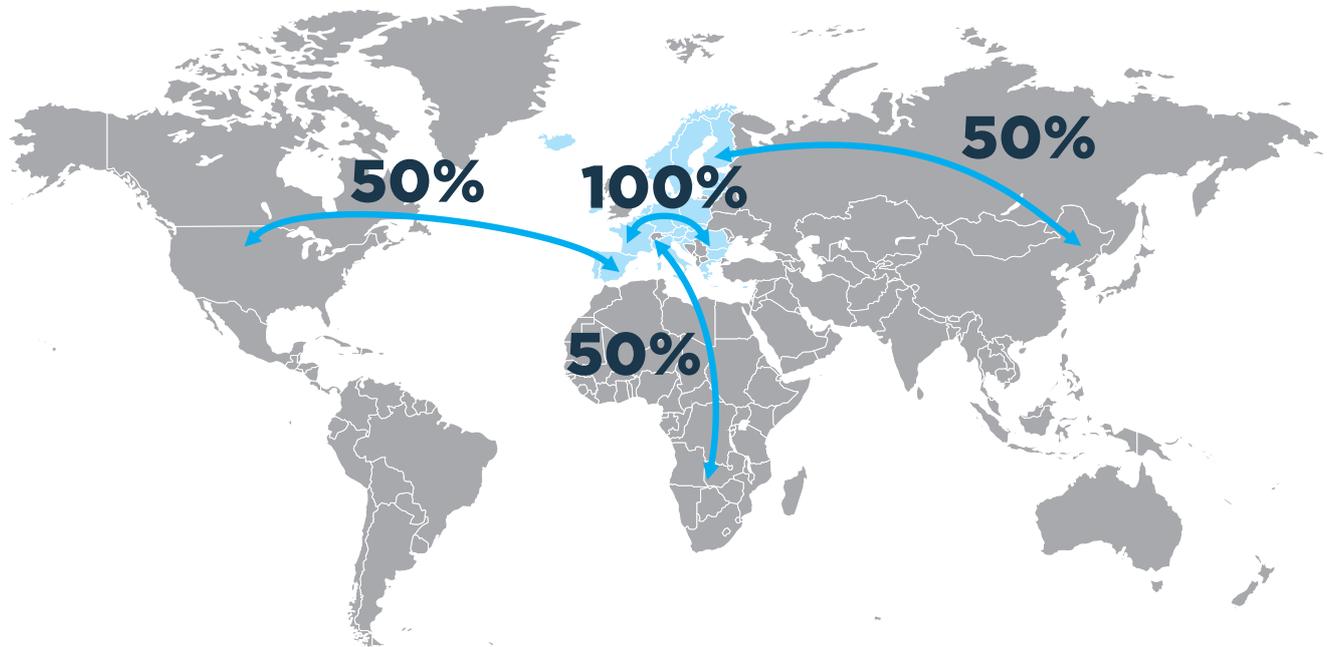
The EU-ETS is a system that creates financial incentives for companies to continuously reduce their GHG emissions. Emissions are priced and only those who avoid them can save emission costs.

However instead of charging GHG fees, a cap-and-trade system has been implemented using proven market mechanisms. Emission rights are needed to legally emit greenhouse gases (GHG).

These emission rights are referred to as EU Allowance (EUA). One EUA entitles for the emission of one metric ton GHG. These EUAs are to be procured on the free market (exchanges, auctions and over-the-counter). The EU controls the issuance of EUAs through a targeted cap to keep the EUA price at a level that makes it worthwhile to reduce GHG emissions on the one hand and sell unused EUAs on the other hand. Unlike other industries ashore, which receive an annual free allocation of EUAs, ship operators must buy all EUAs they need.

In April 2023, the EUA price hit the 100 Euro mark for the first time.

# How is Shipping included into EU-ETS



EUAs are required for 100% GHG emissions on voyages between & within EU ports. For voyages from a non-EU port to an EU port or vice versa 50% of the emissions are to be paid for.

The inclusion of shipping takes place gradually (phase in allowance).

## VESSELS OF 5000 GT AND MORE MUST SUBMIT EUAS FOR:

**40%**  
of their GHG  
emission in  
**2024**

**70%**  
of their GHG  
emission in  
**2025**

**100%**  
of their GHG  
emission in  
**2026**  
and onwards

# How are the EUA costs calculated?

## Definition and example calculations

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### Formula

$$\text{EUA costs} = \text{FUEL}_C * \text{EF} * \text{AREA} * \text{PRICE} * \text{PHASE-IN}_A$$

*fuel<sub>c</sub> = fuel consumed*

*EF = emission factor*

*AREA = trade area rate (100% or 50%)*

*PRICE = EUA price*

*PHASE-IN<sub>A</sub> = phase in allowance (40 % in 2024 or 70% in 2025).*

### Example Calculations

Vessel:	BBC Campana
daily consumption @ sea:	18,0 mt
daily consumption in port:	2,5 mt
@ a speed of:	13,0 kt
emission factor:	3,16 <sup>*)</sup>
EUA price:	85€ (approximate trading price in September 2023)

*\*) An average value is used to simplify the example calculation. The real emission factor depends on the fuel type (HFO: 3,114; LFO: 3,151; MGO: 3,206)*

# Example 1

From non-EU port to EU port



3 days loading at **SHANGHAI**      3 days discharging at **ANTWERP**      total distance **10.530 NM**

	FUEL CONSUMED	X	EMISSION FACTOR	X	TRADE AREA RATE	X	EUA PRICE	=	EUA COSTS
Shanghai	7,5 t	x	3,16	x	0 %	x	85 €	=	0 €
sea passage	607,5 t	x	3,16	x	50 %	x	85 €	=	81.587 €
Antwerp	7,5 t	x	3,16	x	100 %	x	85 €	=	2.015 €

**TOTAL: 83.602€**



**2024 PHASE**  
**IN ALLOWANCE**  
**40% in total:**

**33.441€**

**2025 PHASE**  
**IN ALLOWANCE**  
**70% in total:**

**58.521€**

## Example 2

From UK port to EU port



3 days loading at  
**GRIMSBY**

3 days discharging at  
**AMSTERDAM**

total distance  
**198 NM**

	FUEL CONSUMED	x	EMISSION FACTOR	x	TRADE AREA RATE	x	EUA PRICE	=	EUA COSTS
Grimsby	7,5 t	x	3,16	x	0 %	x	85 €	=	0 €
sea passage	11,4 t	x	3,16	x	50 %	x	85 €	=	1.534 €
Amsterdam	7,5 t	x	3,16	x	100 %	x	85 €	=	2.015 €

**TOTAL: 3.549€**

**2024 PHASE**  
**IN ALLOWANCE**  
**40% in total:**

**1.419€**

**2025 PHASE**  
**IN ALLOWANCE**  
**70% in total:**

**2.484€**

# Example 3

From EU port to EU port



loading at **HAMBURG**      discharging at **GENOA**      total distance **2.461NM**

	FUEL CONSUMED	X	EMISSION FACTOR	X	TRADE AREA RATE	X	EUA PRICE	=	EUA COSTS
Hamburg	7,5 t	x	3,16	x	100 %	x	85 €	=	2.015 €
sea passage	142,0 t	x	3,16	x	100 %	x	85 €	=	38.136 €
Genoa	7,5 t	x	3,16	x	100 %	x	85 €	=	2.015 €

**TOTAL: 42.165€**



**2024 PHASE**  
**IN ALLOWANCE**  
40% in total:

**16.866€**

**2025 PHASE**  
**IN ALLOWANCE**  
70% in total:

**29.516€**

## EU-ETS costs

### How do the EU ETS costs affect the freight?

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By operating the world's largest MPP fleet, the BBC APAC (any port any cargo) concept enables the flexible scheduling of our ships to transport our customers' cargo reliably, on time and at the right price. Once the agreement has been reached, the cargo owner does not have to worry about which ship is transporting the cargo via which route and what the associated costs are.

Consequently, the EU-ETS costs are also included in this concept. These costs are our costs and the freight agreed with the customer applies. Subsequent billing or administratively complex emission accounting do not apply.

For time charters and COAs we agree with our customers, individually and case-by-case, an EU-ETS surcharge. This is based on a transparent emission calculation and considers the actual EUA price as well as the future price development similar to a bunker adjustment factor.

# FAQs

## Definition

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### How is a “voyage” defined in terms of the EU ETS?

From a commercial perspective a voyage may include a series of ports being called. However, in terms of the EU ETS regulations a voyage is only the passage from one port to another. Thus, for an overseas voyage towards the EU, it is the leg from the last port prior entering the EU, that needs to be considered for the EU ETS emission monitoring.

### Why not calling a port close to the EU e.g. for bunkering, deliveries or a crew change to shorten the leg, that accounts for CO2 emissions?

A port of call is defined by the regulation as a port where a cargo ship stops to load or unload cargo. The call for any other purposes would not qualify as a “port of call”. Consequently, the mere call for dry-docking in an EU port, or the sole Kiel Canal transit, would not cause EU ETS emission costs.

## From when will emissions be counted if the voyage begins in 2023 and ends in 2024?

Since the EU-ETS regulation comes into force on January 1st, 2024, only those emissions that the vessel emits from 01.01.2024 00:01 h onwards count.

So, a voyage that starts 15th of Dec 2023 and ends Jan 15th, 2024, will have ETS exposure for the part from 1st of Jan to 15th of January only.

All provided the vessel is on a voyage from, to or between two EU ports.

## How will EU-ETS emissions be accounted for voyages spanning over the turn of the year?

Likewise in the following years, there will be a sharp cut between December 31st 23:59 h and January 01st 00:01 h. In the future this will be relevant to the owner's MRV<sup>1</sup> only, however during the phase-in period (2024 & 2025) it affects the costs in view of the applicable reduction (40% in 2024 & 70% in 2025):

### Example: Voyage from 15. December until 15. January

	GHG EMISSIONS	%	GHG EMISSION ACCOUNTABLE
15.-31. December 2024	953 mt	40%	381 mt
01.-15. January 2025	840 mt	70%	588 mt
	GHG EMISSIONS	%	GHG EMISSION ACCOUNTABLE
15.-31. December 2025	953 mt	70%	667 mt
01.-15. January 2026	840 mt	100%	840 mt

<sup>1</sup>MRV = Monitoring Reporting Verification - This is the EU system, through which a vessel's GHG emissions are officially measured and reported. On basis of these data the vessel's owner will have to submit annually the EUAs. The worldwide equivalent of the IMO is the DCS = Data Collection System.

## Which countries exactly are included into EU-ETS?

The EU-ETS applies to all countries of the European Economic Area (EEA). This includes all EU member states plus Norway, Iceland and Liechtenstein (the latter one can be neglected as it is a land-locked country.)



## Are Overseas Territories of EU Member States included in EU-ETS?

Some EU member states have overseas territories, e.g.:

- France: French Guiana, Guadeloupe, Saint Martin, Martinique, Reunion
- Portugal: Acores, Madeira
- Spain: Canary Islands

The EU-ETS rules apply in full to voyages from and to ports of these overseas territories with the following exemptions:

Until 2030, there is no EU-ETS exposure for voyages between an overseas territory and its respective EU mainland and between ports of the same overseas territory of an EU member state.

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## Would a transshipment of cargo in port close but outside of the EU be beneficial?

The idea is tempting: Simply tranship your overseas cargo at a port close but outside of the EU and you will only have to consider the CO2 emitted on the rather short leg from this transshipment port to the EU destination. However, the emission costs saved would not cover the additional costs e.g. port fees, stevedoring and creates further exposure with regards to cargo damages, documentation, transit times.

For the container ship segment special regulations apply, to prevent such evasive behaviour.

## Do the transshipment port regulations apply to the BBC fleet?

The EU-ETS regulation has provisions in place to prevent container vessels from transshipping their cargo in hubs close to EU ports in order to reduce accountable emissions. These regulations explicitly apply to container vessels. A container vessel is defined as a ship designed exclusively for the carriage of containers in holds and on deck. Thus, this regulation does not apply for any of the BBC vessels, even if they were loaded with containers only.

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