

SPLIETHOFF GROUP

EMISSION REDUCTION REGULATIONS AND THE FINANCIAL IMPACT FOR SHIPPING



Emission reduction regulations for shipping

Spliethoff Group is committed to contributing to a more sustainable shipping sector and bases its agenda, and especially its emissions reduction targets, on the directions set by international regulations and initiatives. In this document you will find a general overview of those regulations and initiatives that have a direct impact on the sector and on the operations of Spliethoff Group and its stakeholders.

European Green Deal

The European Green Deal was presented at the end of 2019. This deal is a growth strategy to transform the EU into a climate neutral and circular economy by 2050, while preserving Europe's competitiveness.

IMO

At the same time, the IMO presented regulations to achieve its objective of a 50% reduction of CO₂ emissions in 2050 compared to 2008 levels by introducing the Energy Efficiency Index for Existing Ships (EEXI) and Carbon Intensity Indicator (CII).

Influence on shipping contracts

Shipping's contribution to a better environment does not come for free. The higher the required percentage of reduction becomes, the higher the costs become. Depending on the type of contract or shipment, the extra costs will be either included in the freight, charged separately, or covered by contractual clauses on fuel, allowances and tax prices.



Fit for 55 plan

The European Green Deal

To achieve climate neutrality by 2050, the European Commission has adopted a set of proposals to make the EU's climate, energy, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels, and achieving climate neutrality in 2050. This package of proposals is called the Fit for 55 package.

Naturally, the shipping industry is also included in this package. The upcoming regulations aim to stimulate more sustainable transport within the sector.

We welcome these new regulations as they will close the gap between fossil fuels and more sustainable alternatives. However, the regulations, and the considerable impact they will have on global shipping, do present us with a challenge. For example, enforcement of the regulations is crucial to ensure a level playing field, since the overall cost increase for shipping is considerable.



EU Regulations

1 EU Emissions Trading System (ETS)

As part of the Fit for 55 package, maritime emissions will be included from 1 January 2024 in the EU ETS, a trading system for emissions allowances, which has been in effect since 2008 for other industry sectors. At the outset, the directive will only apply to vessels over 5,000 gross tonnage (GT) that have been monitoring and reporting their CO₂ emissions under the European monitoring, reporting and verification system (EU MRV) since 2019. This means that it will affect most vessels in Spliethoff Group's fleet.

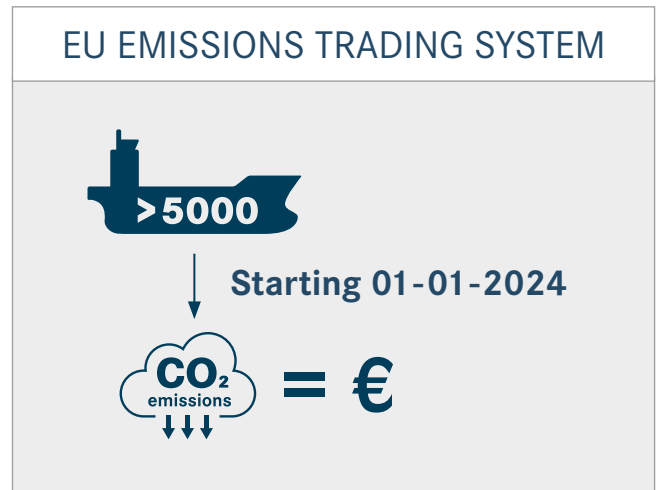
The main obligation imposed by the EU ETS is that shipping companies must acquire and submit allowances (EUAs) for their carbon dioxide (CO₂) emissions. This has to be done for all emissions on trips between EU and EEA (European Economic Area) ports (including emissions while ships are at berth), as well as 50% of the emissions from trips between the European Union or the EEA and third countries. If a company does not submit sufficient allowances, it will be fined.

The EU ETS application to shipping will follow a staggered approach. Shipping companies must submit allowances for 40% of their emissions in 2024, rising to 70% in 2025. The directive will apply in full force from 2026. From then onwards, shipping companies will also have to submit allowances for emissions of methane and nitrous oxide, in addition to CO₂.

Cost increase

The value of one emission allowance fluctuates per day. At the time of writing (May 2023) one EUA costs around € 100. One EUA is equal to the emission of one mt CO₂. As a reference: one mt of HSFO emits just over three mt of CO₂.

As a result of these regulations, the following extra costs are to be expected when (for example) one EUA costs €100.



2024

- Shipment between European/EEA ports: 40% of €100 (= €40) x 3 = €120 per mt of HSFO
- Shipment between European port/EEA and third country: 40% of 50% of €100 (= €20) x 3 = €60 per mt of HSFO

2026

- Shipment between European/EEA ports: 100% of €100 (= €100) x 3 = €300 per mt of HSFO
- Shipment between European port/EEA and third country: 100% of 50% of €100 (= €50) x 3 = €150 per mt of HSFO

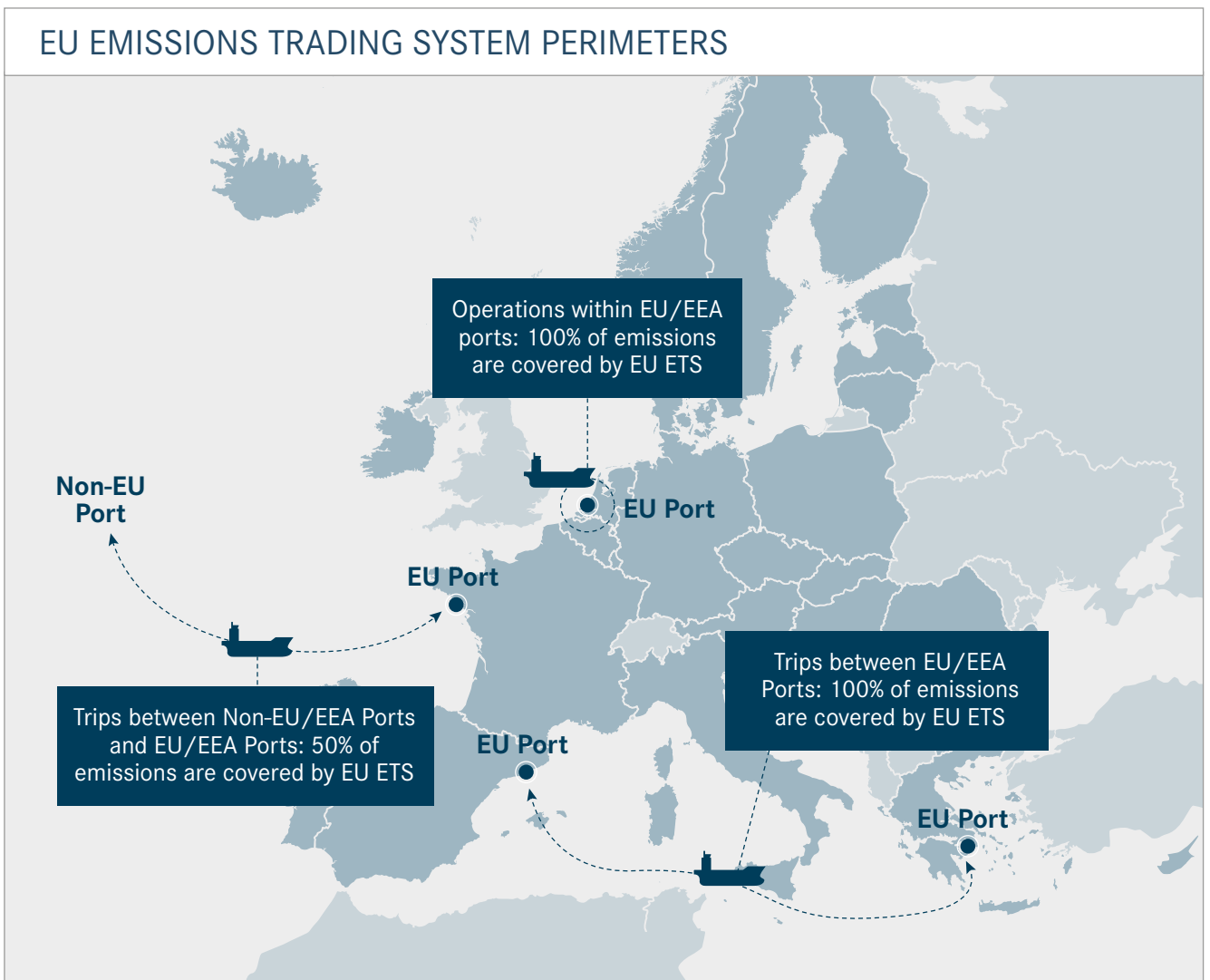
Clearly, these additional costs will unfortunately have an impact on the shipping rates.

Vessels of over 400 GT

General cargo vessels between 400 GT and 5,000 GT will also fall under the EU MRV as of 1 January 2025. In 2026, the European Commission will consider whether these vessels will also fall under EU ETS.

The EU ETS system targets the volume of greenhouse gas emissions. Every registered emitter must surrender a corresponding amount of allowances purchased through an auction system.

Allowances will be needed for the following emissions from commercial operations within/between EU ports and the rest of the world.



EU Regulations

2 Fuel EU Maritime Directive

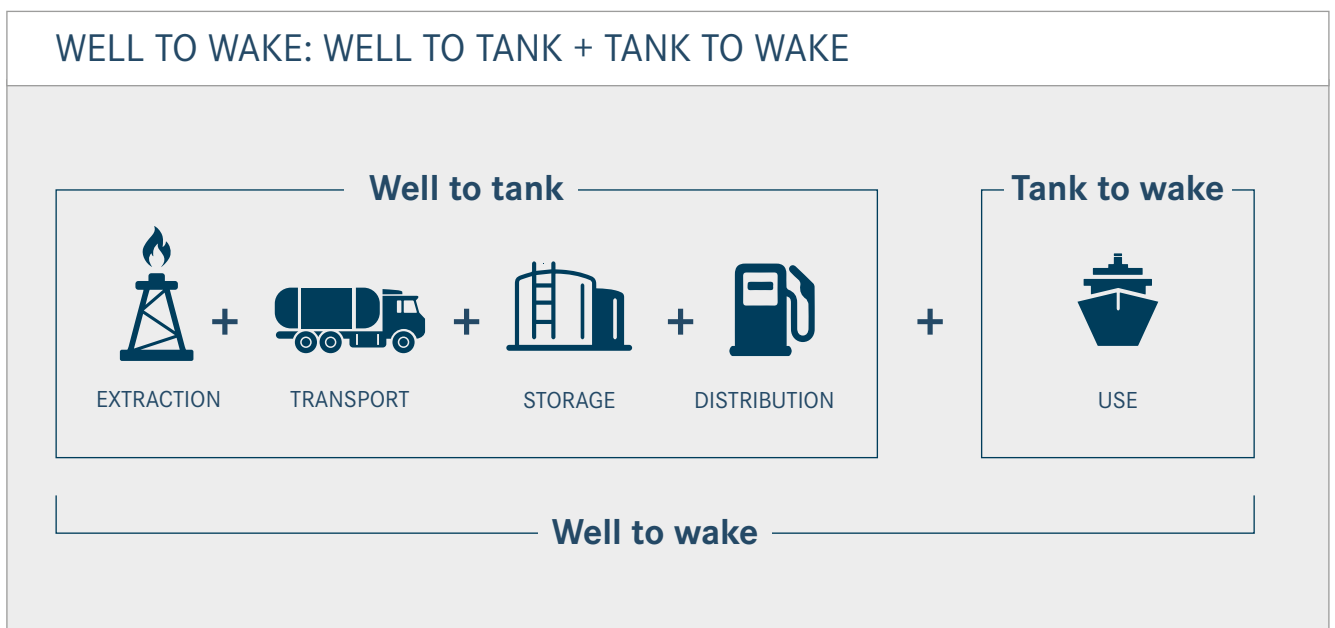
Next on the agenda is the Fuel EU Maritime. This regulation has been established to stimulate the use of sustainable fuels. Presently, it is anticipated that this regulation will come into force in 2025. To stimulate the use of more sustainable fuels, the EU will set a limit on the annual average greenhouse gas intensity of the fuel burned by our fleet within the same scope as the EU ETS. This means that there will be a maximum amount of so-called well to wake CO₂ equivalent emissions allowed for the amount of energy used on the fleet. This limit will also be decreased every 5 years; 2025 starts with a 2% reduction from 2020 levels. 2030 a 6% reduction, 2035: 14.5%, 2040: 31%, 2045: 62% and in 2050 80% reduction.

To comply with these regulations, it is necessary to start using fuels with a lower well to wake carbon intensity than HFO, VLSFO and MGO. This can be achieved by using biofuels on the fleet, either blending biofuels into conventional fuels or running on pure biofuel. Another option is running on LNG, which

could last until 2035. After 2035, bio-LNG or synthetic methane (e-LNG) will be required in order to stay compliant. Other options will be biomethanol or e-methanol or ammonia but these are not yet widely available.

It is important to realise that these fuels will be significantly more costly than conventional shipping fuels. This, again, implies that the cost of shipping will rise, but in this case it will also mean that there will be a direct reduction in greenhouse gas emissions related to that cost.

We support these measures, and it is up to us as a shipping company to reduce our CO₂ emissions as much as possible, but we can only achieve this in close cooperation with our clients. We hope we can work together with motivated customers in order to run on these more sustainable fuels and reduce the emissions of your supply chain.



EU Proposal

3 Energy Taxation Directive (ETD)

Within the Fit for 55 package there is also a proposal for a revision of the Energy Taxation Directive (ETD). Within this revision it is proposed to increase the tax rate on fuel bunkered within the EU. The fuels will be taxed depending on their caloric value.

The proposed tax increase runs up to almost € 40 per mt of fossil fuels. The sustainable options will have

a tax rate up to zero, which should in theory again decrease the price gaps between the fuels.

This revision has not been approved at the time of writing (May 2023) but is to be considered when looking at the future.



IMO Regulations

The IMO has similar decarbonisation targets to the EU but has called for a different approach in regulations. Discussions are still ongoing within

the IMO for additional regulations. However, there are two regulations already in force which will be discussed here: EEXI and CII.

4 Energy Efficiency Index Existing Ships (EEXI)

The Energy Efficiency Index for Existing Vessels went into force on 1 January 2023. With that, all vessels above 400 GT with conventional propulsion need to comply with a certain energy efficiency standard based on their design. Some special ship types are exempted from this regulation (e.g. offshore installation vessels). Within this regulation, the design efficiency of the vessel has to be 30% more compared to 2008 levels. The design efficiency is verified by class and a certificate is issued. This certificate must be on board the vessel before the first survey in 2023.

If the vessel has no certificate, it will not be able to operate. If a vessel can not comply, then modifications must be made to the vessel. These can be energy saving devices such as sails or Flettner rotors or, the most popular option, limiting the installed engine power of the vessel, thereby limiting the operational speed of the vessel. While our vessels are fully compliant with EEXI without modifications, this regulation could cause some transport capacity to be taken from the market due to the limitation of the maximum attainable speed of the vessel.



5 Carbon Intensity Indicator (CII)

The second IMO regulation to come into effect in 2023 is the Carbon Intensity Indicator (CII). This regulation is similar to the EEXI but places requirements on the operational efficiency of the vessel as opposed to its design.

This is achieved by giving vessels an energy label from A to E, based on the reported emissions and miles sailed in the previous year, A being the most efficient and E being the least efficient. D and E labels are non-compliant, meaning that the vessel needs to achieve an A, B or C label to stay compliant and not come under review by class and flag. If a vessel has a D label for three consecutive years, the owner must write an improvement plan. This plan must then be verified by external verifiers such as class. The same is to be done if the vessel attains an E label.

On top of this, the requirements to remain within the parameters of a certain label will become stricter every year. A 2% reduction in emissions for the same amount of transport is necessary to stay within the same label.

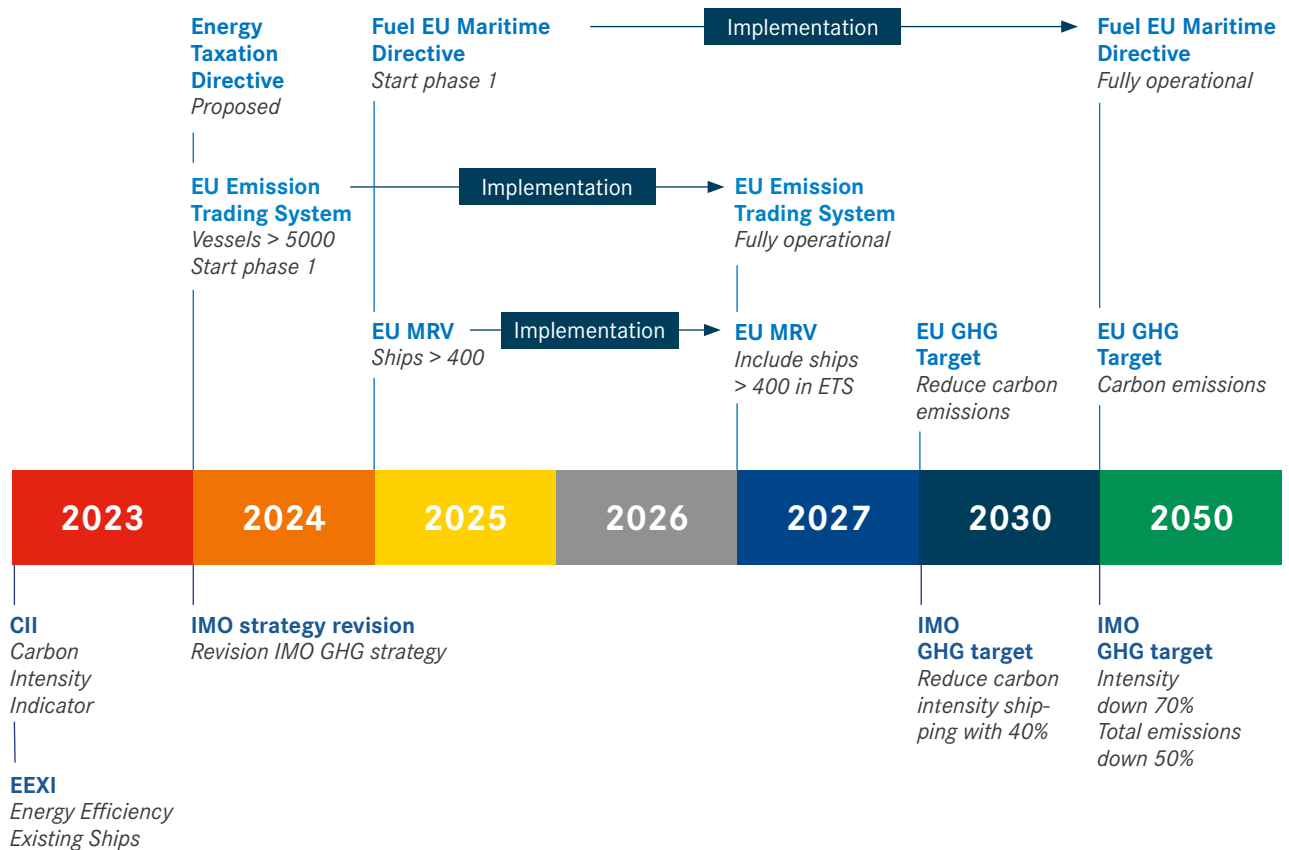
Compliance strategies are to reduce vessel speed, use lower carbon fuels, for instance, biofuels and to install energy saving devices on board the vessel.

There is still some criticism of the simple assessment of operational performance within these regulations. For example, vessels with long idle times are heavily penalised within this regulation. There will be a review period in 2025 where the regulation is further assessed, and the reduction target may also be further increased.



Timeline implementation regulations EU and IMO

TIMELINE IMPLEMENTATION REGULATIONS EU AND IMO REGULATIONS



THE SPLIETHOFF GROUP

The Spliethoff Group is one of the largest shipping companies in the Netherlands. With over a century of maritime expertise behind it, the Amsterdam-headquartered Group has a broad portfolio of specialised services in sectors including dry cargo, breakbulk & project cargo (Spliethoff) project cargoes & heavy lifts (BigLift Shipping), container & Ro-Ro cargo and door-to-door services (Transfennica & Transfennica Logistics), shortsea (Wijnne Barends), yacht

transport (Sevenstar Yacht Transport and DYT Yacht Transport) and tonnage provider (Bore).

Versatility and flexibility are at the heart of the Group's customer service, and this is reflected in a modern fleet of over 115 vessels, which includes multipurpose, geared tween deckers, heavy lift vessels, module carriers, shortsea vessels, Ro-Ro vessels and semi-submersible vessels.