

Extension of the EU ETS to maritime transport

Key aspects of the EU Commission's proposal of 14/07/2021

As a part of the 'Fit for 55' package, the EU Commission presented a proposal on 14/07/2021 to reform the European Emissions Trading System (EU ETS) and align it with the new climate target of reducing emissions by at least 55% by 2030 compared to 1990. This proposal aims at extending the EU ETS to include maritime transport.¹ The legislative proposal not only envisages an amendment of the Emissions Trading Directive (Directive 2003/87/EC) but also an adjustment of the EU Monitoring, Reporting and Verification (EU MRV) Regulation (2015/757). The extension of the EU ETS to maritime transport is a part of a package of EU measures introduced to reduce emissions in this sector and to contribute to the EU climate targets. Other factsheets available concern the [Alignment of the EU ETS and the Market Stability Reserve](#), the [Introduction of a Carbon Border Adjustment Mechanism \(CBAM\)](#), [Aviation](#) and the creation of a [New Emissions Trading System for Buildings and Road Transport](#).

The most important elements at a glance

- ▶ The maritime sector should be integrated into the existing EU ETS in 2023. The number of emission allowances in the EU ETS will therefore be increased by 79 million in 2023. Allocation will take place entirely via regular auctions.
- ▶ CO₂ emissions from ships with a gross tonnage above 5,000 should be covered by the EU ETS as follows: 100% in the ports of Member States, 100% between EU states, 50% on routes to/from EU ports.
- ▶ The proposal is strongly based on the EU MRV Regulation (which should be adapted to the ETS by the proposal, though the revision process, which has been ongoing since 2019, has not yet been completed) particularly in terms of the point of regulation, ship type, size and verification process.
- ▶ A transition phase is envisaged for 2023 to 2026 where the share of emissions for which emission allowances must be surrendered will gradually increase.

¹ https://ec.europa.eu/info/sites/default/files/revision-eu-ets_with-annex_en_0.pdf

1 Key elements of the proposed inclusion of maritime transport in the EU ETS

1.1 Objective

Maritime transport contributes about 3% to the EU's total CO₂ emissions. In 2018, this corresponded to approximately 138 million tonnes (Mt) of CO₂ and was comparable to the emissions of Belgium.² Globally, maritime transport was responsible for 1,056 Mt CO₂ emissions in 2018. The sector contributes a total of 2-3% to global GHG emissions, mainly through emissions of CO₂ (over 90%) and to a lesser extent methane and nitrous oxide emissions.³ So far, there has been no regulation of greenhouse gas emissions from maritime transport in the EU comparable to the Commission's current proposal. The sector is now also expected to contribute to the EU's 2030 climate target under the Green Deal. Addressing maritime emissions at EU level should be seen as a gradual process, following the introduction of an emissions monitoring, reporting and verification system in 2018 (EU MRV Regulation (2015/757)). The proposed integration of maritime transport into the EU ETS is part of a package of measures for the sector that also includes the FuelEU Maritime Regulation, Amendments to the Energy Taxation Directive (ETD) and the Alternative Fuels Infrastructure Development (AFIR) Regulation (see Section 2).

The Commission's proposal to include maritime transport in the EU ETS covers not only amendments to the Emissions Trading Directive (Directive 2003/87/EC), but also changes to the EU MRV Regulation. A revision of this regulation was launched in 2019 and is still ongoing.

1.2 Point of regulation

The point of regulation should be the shipping company (downstream approach). Due to the large bunkering capacities of ships and the sector's mobility, an upstream approach via the distributors of marine fuels would have potentially led to evasive movements, which would have reduced the instrument's efficiency. The definition of a shipping company in the Commission proposal includes the owner of a ship or an organisation/person responsible for the operation of the ship (Article 3(v)). Thus, the owner of a ship can delegate the compliance obligations of the EU ETS to charterers for example, who often operate ships instead of the owners. This definition is in line with a definition proposed by the EU Commission in the context of the revision of the EU MRV Regulation which the EU ETS in maritime transport is based on.⁴

1.3 Scope

The geographical scope of the EU ETS includes the journeys and emissions listed below. Although the definition of the scope in the Commission's proposal refers to EU Member States (MS), it can be assumed that states of the European Economic Area (EEA) are meant.⁵

² EU Commission (2020) – 2019 Annual Report on CO₂ Emissions from Maritime Transport: https://ec.europa.eu/clima/system/files/2020-05/swd_2020_82_en.pdf, but the CO₂ emissions for 2018 were corrected to 144.2 million tonnes in the subsequent report (page 5): EU Commission (2021) – 2020 Annual Report on CO₂ Emissions from Maritime Transport: https://ec.europa.eu/clima/system/files/2021-08/swd_2021_228_en.pdf

³ IMO (2020) – Fourth IMO GHG Study: <https://docs.imo.org/Shared/Download.aspx?did=125134>

⁴ EU Commission (2019) – COM(2019) 38 final, 2019/0017 (COD): <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1549375615180&uri=COM:2019:38:FIN>

⁵ Scope in the EU Commission proposal corresponds to the "MEXTRA50" option in the Impact Assessment, which refers to 'EEA journeys' (Table 1 on page 33 in the Impact Assessment).

The geographical scope envisaged in the proposal regarding the international maritime transport should be set smaller than in the EU MRV Regulation (Chapter II, Article 3g Directive 2003/87/EC):

- ▶ 100% of the emissions in the port (berth) of a MS or in the EEA,
- ▶ 100% of the emissions on intra-EEA voyages,
- ▶ 50% of the emissions on voyages from an EEA port to a third country port,
- ▶ 50% of the emissions on voyages from a third country port to an EEA port.

The Emissions Trading Directive (Annex I) refers to the EU MRV Regulation regarding emissions, ship size and types. Therefore, CO₂ emissions generated on voyages for the commercial transport of goods or passengers should be covered only. The EU ETS should include ships larger than 5,000 gross tonnage (GT) with the exception of warships, naval auxiliaries, vessels used to catch or process fish, timber vessels of simple design, vessels not propelled by machinery or state-owned vessels used for non-commercial purposes. The Commission's proposal does not include inland navigation.

1.4 Cap/quantity regulation

The Commission's proposal envisages a full integration of the maritime transport sector into the existing EU ETS from 2026 with a transition phase starting in 2023 (see under 1.5). No specific maritime transport emission allowances will be introduced. The allowances will be freely tradable between all sectors included in the EU ETS (see also the [Cap and MSR Factsheet](#)). The same rules and requirements of Directive 2003/87/EC regarding auctioning (Article 10), transfer, surrender and cancellation of allowances (Article 12), penalties (Article 16) and registries (Article 19) should apply to maritime transport as to the other sectors. The total number of allowances should be increased by 79 million in the starting year to cover the extension to maritime transport (Article 9) after the revised Directive enters into force. The 79 million allowances are derived from the 2018 CO₂ emissions from maritime transport, for which the 4.2% Linear Reduction Factor (LRF) applicable in the EU ETS will be applied retrospectively from 2020. The [Cap and MSR Factsheet](#) explains the Commission's proposals to structural changes for the entire EU ETS such as the adjustment of the LRF.

1.5 Allocation of emission allowances and funds

A transitional phase will introduce the inclusion of maritime transport into the EU ETS. In the first years, emission allowances only have to be surrendered for a part of the verified emissions. This share will gradually increase to 100% by 2026 (Article 3ga):

- ▶ 2023: 20%
- ▶ 2024: 45%
- ▶ 2025: 70%
- ▶ 2026: 100%

The additional allowances for maritime transport should be fully auctioned. The difference between the verified emissions and the number of allowances that need to be surrendered in

each year of the transitional phase will be deleted from the auction volume in the following year so that the transitional phase will not create an allowance surplus.

No specific new funds to promote decarbonisation in the maritime transport should be established from the auction revenues. However, the existing European innovation and modernisation funds should be increased and the award rules adjusted. In addition, technologies and infrastructure for the decarbonisation of maritime transport and carbon contracts for difference (CCfDs) should be promoted via the Innovation Fund in the future (Article 10a(8)). The detailed proposals for the use of auction revenues are listed in the [Cap and MSR Factsheet](#).

The accompanying Impact Assessment assumes that the majority of emission reductions in the sectors covered by the EU ETS will not take place in the maritime sector due to the expected allowance prices and consequently only a small part of the emissions from maritime transport would be saved in the sector and the majority would be covered by purchase of allowances.

1.6 Monitoring and administrative issues

Shipping companies should be assigned to the Member States (as competent ‘administering authorities’) (Article 3gd). If the shipping company has been registered in a MS, this MS is (still) responsible. If a shipping company is not registered in any MS, that MS with the highest estimated number of port calls during voyages⁶ within the two previous monitoring years will be responsible. In all other cases, the MS from whose port the first voyage within the scope started should be responsible. Before 01/02/2024, the EU Commission will publish a list with the names of all shipping companies carrying out a maritime transport activity in the relevant scope of the EU ETS from 01/01/2023. In addition, the assigned administrative authority will be specified. Thereafter, this list should be updated at least every two years to assign shipping companies to a different administrative authority, if necessary, or to include shipping companies therein.

According to the Commission's proposal, shipping companies should report aggregated company-level data by 31 March annually for the previous year to the administering state and the EU Commission (2015/757, Article 11a), while the EU MRV emissions report (containing ship-level data) should be submitted by 30 April annually to the flag state and the EU Commission. Administering states are responsible for ensuring that shipping companies comply with the monitoring and reporting obligations and are expected to check that reporting has been verified according to the rules of the EU MRV Regulation. However, it is not clear from the Commission's proposal's wording (Articles 3gb and 3gc, Directive 2003/87/EC) whether the competent national bodies of the MS can also check the content of the verified reports, possibly down to ship level (as in the existing EU ETS) or only accept them (as under the EU MRV Regulation). The verification should be carried out by accredited verifiers.

The EU MRV Regulation remains in force, i.e. the specific regulations on the scope, the distribution of tasks in the compliance cycle and monitoring, reporting, accreditation and verification, and are not integrated into the Directive 2003/87/EC. The EU Commission should be able to adopt further rules on monitoring, reporting and verification of aggregated data via delegated acts (2015/757, Article 11a and 13). This means that the MS are not formally involved in the adoption of the rules by implementing acts and that many rules for maritime transport, e.g. further details on monitoring, reporting, accreditation and verification, are regulated separately by the EU MRV Regulation.

In addition to the usual penalties for non-compliance in the EU ETS, any MS has the option as ultima ratio for maritime transport to refuse the ships of the shipping company concerned entry

⁶ Within the scope of the Directive 2003/87/EC

into all EU ports or, if the ship is sailing under the flag of a MS, to detain the respective ships in port until the company has fulfilled its obligations (Article 16(11a)). The prerequisite for this is that the shipping company has failed to comply with the obligation to surrender allowances in two or more consecutive reporting years, the company has had the opportunity to comment on the allegations and other compliance measures have not been successful.

1.7 Interaction with IMO

A review of the maritime chapter of the Directive is foreseen in case the International Maritime Organization (IMO) decides on a global market-based climate protection measure. By the end of September 2028 at the latest, the EU Commission must compile a report on the IMO developments and on potential market-based measures to be taken by the IMO and, if necessary, propose amendments to the Emissions Trading Directive (Article 3ge, Directive 2003/87/EC), for example to enable crediting allowances from other emissions trading systems or an adjustment to the scope.

2 Interaction with other elements of the ‘Fit for 55’ package

The ‘Fit for 55’ package includes a number of other elements that influence maritime transport. Essentially, these are intended to promote and more strongly incentivise the provision and use of alternative fuels as well as on-shore power supply. They reduce the use of fossil fuels and thus mitigate emissions and the corresponding amount of emission allowances to be surrendered. In detail, these are:

The **Energy Taxation Directive** (ETD) should be amended so that the tax exemption of fuels in intra-EU maritime transport (and also in inland shipping) will be abolished from 2023 and alternative fuels such as e-fuels will be exempted from tax for 10 years. In addition, MS should be authorised to exempt on-shore power supply in ports from tax.

The new **FuelEU Maritime Regulation** aims to further incentivise maritime transport to use renewable and low-carbon alternative fuels. The regulation foresees an emission intensity standard from 2025 on: the average GHG intensity of energy used (g CO₂ equivalent/megajoule) on ships must decrease annually (by 2% in 2025 and by 75% in 2050 compared to 2020). The EU ETS and the FuelEU Maritime Regulation address the same point of regulation and cover the same scope (geographical, ship type/size). However, the FuelEU Maritime Regulation considers more GHG emissions (methane and nitrous oxide as well as upstream emissions (well-to-wake approach)) than only CO₂ emissions from ships (tank-to-wake approach). In addition, the regulation foresees an obligation to use on-shore power supply or zero-emission technology in port for container and passenger ships (with exceptions) from 2030.

As a part of the package of measures for shipping, the revision of the **Alternative Fuels Infrastructure Regulation** (AFIR) aims to ensure that alternative fuels and on-shore power supply are increasingly available for maritime transport in EU ports. If alternative fuels are available, the maritime sector is encouraged to mitigate emissions within the sector instead of buying emission allowances.

There is an interaction with the transport target of the **Renewable Energy Directive** (RED), which is currently under revision as the targets include fuel provided to maritime transport. The RED and the Emissions Trading Directive are therefore linked via the use of e-fuels in maritime transport both for the reduction of the surrender obligation in the EU ETS and for target fulfilment of the RED.

3 Next steps and key issues for the political process

The revision of the EU MRV Regulation, which has not yet been completed, may still influence the Commission's proposal to revise the Emissions Trading Directive as this proposal is solely based on the Commission's proposal to revise the EU MRV Regulation. For example, the greenhouse gas emissions covered in the maritime ETS could still change as a result of an adjustment of the EU MRV Regulation.

In addition to the position finding in the European Parliament and the Council on the Commission's proposal, the European Parliament had already made proposals for a maritime ETS as a part of the revision of the EU MRV Regulation (including the definition of shipping companies, Ocean Fund). The trilogue in mid-2020 was cancelled.

Key issues and aspects for the political process:

- ▶ It must be checked whether the planned design of the EU ETS for maritime transport provides a sufficient contribution to achieving the greenhouse gas neutrality target in 2050 (in combination with other measures) and whether a maritime transport-specific target for 2050 can be established.
- ▶ The price level in the EU ETS might probably not be high enough (as a sole incentive) to encourage the use of alternative fuels such as e-fuels. A higher price level (and the sole inclusion of CO₂ via a tank-to-wake approach) may lead to increased use of fossil liquefied natural gas (LNG). The other measures of the legislative package such as the emission intensity standard of the FuelEU Maritime Regulation or the ETD are therefore important for the use of e-fuels in the sector.
- ▶ The risk of carbon leakage to neighbouring EU countries, especially in the event of rising ETS prices, should be kept in mind. Potential solutions to limit carbon leakage that go beyond the proposed directive should be considered. It is important for the acceptance of the extension of the EU ETS to maritime transport, especially among the Member States strongly affected, among stakeholders and also for achieving the required greenhouse gas reductions in the sector, that a part of the revenues generated flow back into the sector via project funding. This is envisaged by the Commission's proposal to adjust the funding purposes in the Innovation Fund and it should be considered as to whether this is sufficient.
- ▶ It must be seen how the process of including maritime transport in the EU ETS can be organised in such a way that the discussion on implementing a global market-based instrument under the IMO, e.g. a levy, can be influenced positively as far as possible.
- ▶ The influence of MS on the further procedure should be discussed, as the EU Commission can amend elements in the maritime ETS via the EU MRV Regulation and via delegated acts in the EU MRV Regulation. For other ETS sectors, however, the scope and ordinance authorisations for implementing acts for reporting etc. are contained directly in the Emission Trading Directive.
- ▶ The robustness of the verification procedure and some of the detailed administrative provisions in the EU MRV Regulation need to be reviewed and improved if necessary. For

example, it is still not clear whether MS are allowed or required to review (the content of) the verified reports of the EU ETS or whether MS only check whether verification has taken place, while the verification of the content of the data and collection methods is left to the verifiers.

- ▶ The regulations on the compliance cycle must be designed more consistently due to the different report addressees (flag state for ship emission reports, administering MS for aggregated company reports) and reporting deadlines. The reports probably cannot be used for mutual plausibility checks according to the regulations as foreseen.
- ▶ Emissions from ships smaller than 5,000 GT and from voyages without commercial transport of goods/passengers by ships larger than 5,000 GT in international waters are not covered by the EU ETS. The Effort Sharing Regulation (ESR), however, covers ships smaller than 5,000 GT in national coastal waters and inland navigation. In addition, there is an overlap between the EU ETS and the ESR for ships over 5,000 GT⁷. In international waters, the inclusion of smaller ships in the EU ETS would require an analysis to weigh the costs against the climate impact – otherwise they would have to be covered by other instruments in the long term.
- ▶ The currently proposed exclusive coverage of CO₂ emissions in the EU ETS and the foreseen limiting values of the FuelEU Maritime Regulation potentially lead to an increased use of fossil LNG. The appropriateness and consistency of the proposals must be checked here.

⁷ A partial overlap of EU ETS and ESR for ships larger than 5,000 GT in national waters and between MS, current coverage in EU MRV Regulation makes separation of emissions by MS difficult (p.78): https://ec.europa.eu/info/sites/default/files/proposal-amendment-effort-sharing-regulation-with-annexes_en.pdf

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As of November/2021