German Environment Agency



As of 05. October 2023

## Extension of the EU ETS to maritime transport

### Key aspects of the revision of the ETS directive

On 14/07/2021, the EU Commission presented a series of legislative proposals as part of the 'Fit for 55' package, which is intended to align the EU's energy and climate policy instruments with the new climate target of reducing emissions by 55% compared to 1990 levels by 2030.<sup>1</sup> In December 2022, an agreement was reached between the EU Member States, the EU Commission and the European Parliament on the revised EU Emissions Trading System (ETS). The amendments<sup>2</sup> to the Directive (2003/87/EC)<sup>3</sup> came into force on 05/06/2023. This factsheet presents the key aspects of the revised ETS Directive with respect to the extension of the EU ETS to maritime transport. The extension to maritime transport requires not only an amendment of the ETS Directive but also an adjustment<sup>4</sup> of the EU Monitoring, Reporting and Verification (EU MRV) Regulation (EU 2015/757)<sup>5</sup>. The extension of the EU ETS to maritime transport is part of a package of EU measures introduced to reduce emissions in the maritime 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 ETS for buildings and road transport (EU ETS 2).<sup>6</sup>

#### The most important elements at a glance

- The maritime sector will be fully integrated into the existing EU ETS in 2024. The number of emission allowances in the EU ETS will therefore be increased by 78.4 million in 2024. Allocation will take place entirely via regular auctions.
- Carbon dioxide (CO<sub>2</sub>) emissions from ships with a gross tonnage above 5,000 will be covered by the EU ETS as follows: 100% in the ports and between ports within a Member State, 100% between ports of EU Member States, 50% on routes to/from EU ports from/to non-EU ports. From 2026 onwards also methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) emissions will be covered.
- ► The maritime EU ETS is strongly based on the EU MRV Regulation particularly in terms of the scope (ship type, size etc.) and monitoring and verification processes.
- A transition phase is envisaged for the years 2024 and 2025 where the share of emissions for which emission allowances must be surrendered will gradually increase from 40% in 2024, 70% in 2025 to 100% in 2026.

<sup>&</sup>lt;sup>1</sup> <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0550</u>

<sup>&</sup>lt;sup>2</sup> Amendments through Directive (EU) 2023/959: <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023L0959</u>

<sup>&</sup>lt;sup>3</sup> <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:02003L0087-20180408</u>

<sup>&</sup>lt;sup>4</sup> <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023R0957</u>

<sup>&</sup>lt;sup>5</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L .2015.123.01.0055.01.ENG

<sup>&</sup>lt;sup>6</sup> See <u>https://www.umweltbundesamt.de/en/topics/european-emissions-trading-undergoes-comprehensive</u>

# **1** Key elements of the inclusion of maritime transport in the EU ETS

## 1.1 Objective

Maritime transport contributes about 3% to the EU's total CO<sub>2</sub> emissions. In 2021, this corresponded to approximately 124 million tonnes (Mt) of CO<sub>2</sub> and was comparable to the emissions of Belgium.<sup>7</sup> Globally, maritime transport was responsible for 1,056 Mt CO<sub>2</sub> emissions in 2018. The sector contributes a total of 2-3% to global greenhouse gas (GHG) emissions, mainly through emissions of CO<sub>2</sub> (over 90%) and to a lesser but growing extent methane and nitrous oxide emissions.<sup>8</sup> So far, there has been no regulation of GHG emissions from maritime transport in the EU comparable to the decided step of including the sector in the EU ETS. In this respect, the EU makes a big step forwards and the sector is now going to contribute to the EU's 2030 climate target under the Green Deal. Addressing maritime emissions at EU level is a gradual process: following the introduction of an emissions monitoring, reporting and verification system in 2018 (EU MRV Regulation (EU 2015/757)), the EU bodies have agreed on the integration of maritime transport into the EU ETS<sup>9</sup>. The inclusion in 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), the Alternative Fuels Infrastructure Development (AFIR) Regulation and Renewable Energy Directive (RED) (see section 2). The inclusion of maritime transport in the EU ETS is not only based on amendments to the Emissions Trading Directive (Directive 2003/87/EC), but also changes to the EU MRV Regulation (EU 2015/757)<sup>10</sup>.

## 1.2 Point of regulation

The point of regulation is 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 includes the owner of a ship or an organisation/person responsible that has assumed the responsibility for the operation of the ship from the shipowner and that, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed by the International Management Code for the Safe Operation of Ships and for Pollution Prevention, set out in Annex I to Regulation (EC) No. 336/2006 (Article 3(w))<sup>11</sup>. In particular for situations where third parties charter a ship, Member States (MS) are required to ensure via a statutory entitlement in national law that the shipping company can claim reimbursement from the party that has assumed the responsibility for fuel purchase and/or operation of the ship (speed, routes) for the cost of surrendering allowances (Article 3gc). This could be implemented via contracts between the ship owner and the third party. MS are not obliged to control the existence of such contracts. The shipping company though remains the entity responsible for surrendering allowances and compliance with the Directive.

<sup>9</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0550

<sup>&</sup>lt;sup>7</sup> EU Commission (2022) – 2021 Annual Report on CO<sub>2</sub> Emissions from Maritime Transport: <u>https://climate.ec.europa.eu/system/files/2023-03/swd 2023 54 en.pdf</u>

<sup>&</sup>lt;sup>8</sup> IMO (2020) – Fourth IMO GHG Study: <u>https://docs.imo.org/Shared/Download.aspx?did=125134</u>; methane and nitrous oxide have much higher global warming potentials (GWP) than CO<sub>2</sub> (GWP 28 and GWP 298 respectively)

 $<sup>^{\</sup>rm 10}$  EU MRV Regulation might be further reviewed in 2024, see section 1.3

<sup>&</sup>lt;sup>11</sup> All references to articles relate to the Emission Trading Directive (2003/87/EC) if not otherwise indicated.

## 1.3 Scope

Although the definition of the scope in the Emission Trading Directive refers to EU MS, it can be assumed that states of the European Economic Area (EEA) are meant.<sup>12</sup> The geographical scope covered by the maritime EU ETS is set smaller than in the EU MRV Regulation and includes the journeys and emissions listed below (Article 3ga):

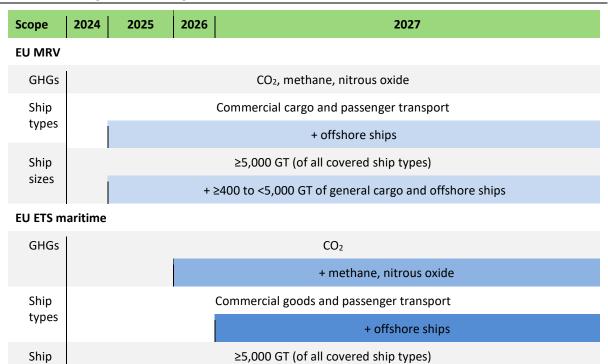
- 100% of the emissions in the port (berth) or between ports within a MS and Iceland and Norway,
- ▶ 100% of the emissions on intra-EEA voyages,
- ▶ 50% of the emissions on voyages from an EEA port to a third country port,
- ▶ 50% of the emissions on voyages from a third country port to an EEA port.

The geographical scope is based on the concept of a "port of call" as a starting and end point for voyages - which is a port where a ship (un)loads cargo and/or (dis)embarks passengers or the crew in case of offshore ships (Article 3(z)). Non-Union ports within 300 nautical miles of a MS port, where the transhipment of containers accounts for a significant share of the total container traffic, are excluded from the port of call definition to reduce the risk of evasion (Article 3ga(2)). The Commission shall establish a list of such neighbouring container transhipment ports by the end of 2023 which shall be updated every two years thereafter.

The following table provides an overview of the coverage of ships and GHGs of the EU MRV Regulation and the maritime EU ETS in the years up to 2030.

The maritime EU ETS covers  $CO_2$  emissions from 2024 onwards and from 2026 onwards also methane and nitrous oxide emissions (Annex I, Directive 2003/87/EC). Methane and nitrous oxide emissions will already be included in the EU MRV from 2024 onwards in addition to  $CO_2$  emissions (2015/575, Article 2(1c)).

<sup>&</sup>lt;sup>12</sup> Scope in the ETS Directive is similar to the "MEXTRA50" option in the Impact Assessment, which refers to 'EEA journeys' but only incoming voyages instead of a 50/50-share of international voyages (Table 0-1, p.4 in: <u>https://op.europa.eu/en/publication-detail/\_/publication/ba865136-353b-11ec-bd8e-01aa75ed71a1/language-en</u>). EEA = EU27 + Iceland and Norway.



#### Table 1: Coverage EU MRV Regulation and maritime EU ETS

The Emissions Trading Directive (Annex I) directly refers to the EU MRV Regulation regarding the covered ship types. The maritime EU ETS will cover emissions generated on voyages for the commercial transport of goods or passengers and includes ships of 5,000 gross tonnage (GT) and above 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. Starting in 2025, offshore ships and general cargo ships below 5,000 but not below 400 GT will be included in the EU MRV (compare table above). In the EU ETS, offshore ships<sup>13</sup> of 5,000 GT and above will be included from 2027 onwards after their inclusion in the MRV in 2025 (Annex I in 2003/87/EC). By the end of 2026, the EU Commission shall present a report (Article 3g(5)) on the feasibility of the extension of the EU ETS to ships below 5,000 but not below 400 GT, including offshore ships, building on the analysis accompanying the review of EU MRV Regulation (EU 2015/757) due by end of 2024 on including additional ship types below 5,000 but not below 400 GT (Rec. 9 in EU MRV amendment<sup>14</sup>). The report shall also include a proposal on how the EU ETS Directive can appropriately account for the uptake of renewable and low-carbon maritime fuels on a lifecycle basis. The maritime ETS does not include inland shipping/navigation.

Potential extension to ships ≥ 400 to <5,000 GT

## 1.4 Cap/quantity regulation

sizes

The maritime transport sector will be fully integrated into the existing EU ETS from 2024 with a transition phase in the first two years (see under 1.5). No specific maritime transport emission

<sup>&</sup>lt;sup>13</sup> Offshore ships are neither defined in the Emission Trading Directive nor in the EU MRV Regulation (205/757). According to the S&P shipcode system, offshore ships are work vessels which encompass, amongst others, tug and supply vessels for offshore platforms, supply vessels to transport crews/supplies, drilling and construction vessels, pipe construction/support vessels: <a href="https://cdn.ihs.com/www/pdf/Statcode-Shiptype-Coding-System.pdf">https://cdn.ihs.com/www/pdf/Statcode-Shiptype-Coding-System.pdf</a>

<sup>&</sup>lt;sup>14</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023R0957

allowances will be introduced. The allowances will be freely tradable between all sectors included in the EU ETS. The same rules and requirements of Directive 2003/87/EC regarding auctioning (Article 10)<sup>15</sup>, transfer, surrender and cancellation of allowances (Article 12), penalties (Article 16) and registries (Article 19) will apply to the maritime transport sector as to the other sectors. The total number of allowances will be increased by 78.4 million in the starting year to cover the extension to maritime transport (Article 9). The 78.4 million allowances are derived from the 2018 and 2019 average CO<sub>2</sub> emissions from EU maritime transport in the MRV (taking into account the reduced geographical scope), for which the 4.3% Linear Reduction Factor (LRF) applicable in the EU ETS is applied retrospectively. From 2028 onwards, the LRF will be increased to 4.4%. Further, the quantity of allowances will be increased in 2026 and 2027 respectively (Article 9) to account for the inclusion of GHGs other than CO<sub>2</sub> emissions (methane and nitrous oxide emissions) and offshore ships in the scope of the maritime ETS (see section 1.3). Another factsheet on the cap and market stability reserve explains the 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 two 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 3gb):

- ▶ 2024: 40%
- ▶ 2025: 70%
- ▶ 2026: 100%

The additional allowances for maritime transport will be fully auctioned. Once the difference between the verified emissions and the number of allowances surrendered has been established in each year of the transitional phase, an amount of allowances corresponding to that difference will subsequently be deleted from the auction volume so that the transitional phase will not create an allowance surplus. Ice-class ships may surrender 5% fewer allowances than their verified emissions until the end of 2030 (Article 12(3-e)). A cancellation of allowance where fewer allowances are surrender compared to verified emissions is also in place for ice-class ships until 2030 (Article 12(3-e)). Emission allowances need to be surrendered by the 30<sup>th</sup> of September each year to cover the emissions from the previous year (Article 12).

Countries with a large number of shipping companies compared to the number of inhabitants (as an indication of national dependency on maritime transport) will be allocated a share of allowances until 2030 (Article 3ga(3)). For the years 2024 and 2025, the quantity of allowances shall in addition be multiplied by the percentages applicable to the relevant year (40% and 70%). The revenue generated from the auctioning of this share of allowances shall be used for the decarbonisation of maritime transport (3.5% of the 78.4 million allowances for maritime transport (section 1.4)). 50% of allowances shall be distributed among the relevant MS based on the share of shipping companies, and the remainder will be distributed equally between the MS (Article 3ga(3)). The continuation of the exception with regard to the application of Article 10 beyond 2030 shall be reassessed by the EU Commission via a report due end of September 2028 (Article 3gg(4)).

 $<sup>^{15}</sup>$  With exceptions based on Article 3ga(3)). see section 1.5

Until the end of 2030, there are several derogations from the general allocation principal concerning the obligation of shipping companies to surrender allowances in respect of their emissions released from:

- Voyages between a port of MS and its outermost region port, including ports within and between outermost regions of the same MS and from port activities related to such voyages (Article 12(3-b));
- Voyages for passenger transport between a MS with no land connection and other closest MS in the context of a transnational public service contract/obligation and from port activities related to such voyages (Article 12(3-c));
- Voyages for passenger transport between (small) island ports of a MS with no road or rail link with the mainland and with less than 200,000 permanent residents and that MS as well as from port activities related to such voyages (Article 12(3-d)).

MS may use part of their revenues for measures to decarbonise the maritime sector, including energy efficiency improvements of ships, innovative technologies and infrastructure, sustainable alternative fuels (such as hydrogen and ammonia that are produced from renewables), and zero-emission propulsion technologies (Article 10(3-f)). No specific new funds to promote decarbonisation in the maritime transport will be established from the auction revenues. However, the existing European Innovation Fund (which has also been stocked up by 25 million allowances) will also cover the maritime sector in the future by supporting breakthrough innovative technologies and infrastructure, including production of low- and zero-carbon fuels, to decarbonise the sector (Article 10a(8)). In that respect, the Commission will provide specific calls for proposals for dedicated maritime topics in the Innovation Fund (20 million allowances up to 2030), including the electrification of maritime transport and the mitigation of impacts from black carbon emissions.<sup>16</sup>

The accompanying Impact Assessment<sup>17</sup> assumes comparatively low allowance prices  $(46 \in /tCO_2 \text{ in } 2030)$  compared to today's prices ( $\sim 85 \in /tCO_2$ ) resulting in small emissions reductions within the maritime transport sector. Instead, the majority of the emissions from this sector would be covered by the purchase of EU ETS allowances. However, given the current developments with higher ETS prices, more in-sector emission reduction can be anticipated compared to the Impact Assessment.

## 1.6 Monitoring and administrative issues

Shipping companies will be assigned to the MS (as competent 'administering authorities') (Article 3gf). If the shipping company has been registered in a MS, this MS is responsible. If a shipping company is not registered in any MS, that MS with the highest estimated number of port calls during voyages<sup>18</sup> within the four previous monitoring years will be responsible. In all other cases, the MS from whose port the first voyage within the scope started or arrived will be responsible. Before 01/02/2024, the EU Commission will publish by means of implementing acts a list with the names of all shipping companies carrying out a maritime transport activity in

<sup>&</sup>lt;sup>16</sup> Rec. 54 in <u>https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023L0959</u>; and Annex to the ETS Directive's resolution: <u>https://www.europarl.europa.eu/doceo/document/TA-9-2023-0098\_EN.pdf</u>; and EU Commission FAQ: <u>https://climate.ec.europa.eu/eu-action/transport/reducing-emissions-shipping-sector/faq-maritime-transport-eu-emissions-trading-system-ets\_en</u>

 $<sup>\</sup>label{eq:linear_state} $$^{17}$ https://op.europa.eu/o/opportal-service/download-handler?identifier=ba865136-353b-11ec-bd8e-01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a1&format=pdf&language=en&productionSystem=cellar&part=01aa75ed71a4&part=01aa75ed71a$ 

 $<sup>^{\</sup>rm 18}$  Within the scope of the Directive 2003/87/EC

the relevant scope of the EU ETS from 01/01/2024. In addition, the assigned administrative authority will be specified. Thereafter, this list shall be updated at least every two years to assign shipping companies already registered in a MS to a different administrative authority, if they changed their registration, or to include shipping companies new to the scope therein. Every four years, an updated list shall be provided which reattributes shipping companies which are not registered in a MS to another administering authority (AA) due to changed frequencies of port calls.

Shipping companies shall report verified aggregated company-level data by 31<sup>st</sup> March annually for the previous year to the AA and the EU Commission (EU 2015/757, Article 11a), at the same time as the annual emissions report (containing ship-level data) is submitted to the AA, the flag state and the EU Commission. The verification should be carried out by accredited verifiers. AAs are responsible for ensuring that shipping companies comply with the monitoring, reporting and verification obligations for the aggregated company-level data according to the rules of the EU MRV Regulation.

The EU Commission, assisted by the European Maritime Safety Agency, shall develop appropriate tools and guidance to facilitate and coordinate verification and enforcement activities to the maritime ETS (Article 18b). The guidance or tools shall be shared with MS and/or verifiers if practicable.

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 is not integrated into the Directive 2003/87/EC. The EU Commission can adopt further rules on monitoring, reporting and verification of aggregated data via delegated acts (EU 2015/757, Articles 5, 11a and 23). 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 to refuse entry into all EU ports to the ships of the shipping company concerned or, if the ships are 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.

The EU Commission shall also report biennially, after the year following the entry into force of the Directive, on the implementation of the maritime EU ETS, including any trends on evasive behaviour and outermost regions (Article 3gg(3)).

## 1.7 Interaction with IMO

Member states of the International Maritime Organization (IMO) adopted a revised GHG Strategy at MEPC80 in July 2023.<sup>19</sup> The revised strategy includes a revised long-term climate target of reaching net-zero GHG emissions by or around, i.e. close to 2050. Further, it was agreed that the basket of measures shall consist of a technical element (e.g. a goal-based marine fuel standard, similar to the FuelEU Maritime Regulation) and an economic element (e.g. carbon pricing like a levy). A review of the maritime chapter of the Directive is foreseen in case the IMO decides on such a global market-based climate protection measure (Article 3gg(1)). Within

<sup>&</sup>lt;sup>19</sup> IMO (2023) – Resolution MEPC.377(80):

https://www.cdn.imo.org/localresources/en/MediaCentre/PressBriefings/Documents/Resolution%20MEPC.377(80).pdf

18 months of the adoption of such a measure, the EU Commission must submit a report to examine the measure regarding its ambition in light of the objectives of the Paris Agreement, its environmental integrity, and the coherence between the EU ETS and that measure. If appropriate, the Commission may propose amendments to the Emissions Trading Directive (2003/87/EC) in a manner that is consistent with the EU climate targets and that ensures environmental integrity and effectiveness of the EU ETS.

If the IMO does not adopt a global market-based measure by 2028 which is in line with the ambitions of the Paris Agreement, the EU Commission shall also provide a report which examines the need to extend the geographical scope of the maritime EU ETS to more than 50% of incoming and outgoing voyages (see section 1.3). Where appropriate, the report shall be accompanied by a legislative proposal.

## **2** Interaction with other EU and national policies

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**, adopted in July 2023, 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 (gCO<sub>2</sub>equivalent/megajoule) on ships must decrease annually (by 2% in 2025 and by 80% in 2050 compared to 2020). The FuelEU Maritime Regulation covers ships above 5,000 GT and the same scope as the EU ETS in terms of ship types and geographical scope. While the FuelEU Maritime Regulation will include CO<sub>2</sub>, methane and nitrous oxide emissions from 2025 on a well-to-wake basis, the EU ETS will cover CO<sub>2</sub> emissions from 2024 with a tank-to-wake approach and methane and nitrous oxide emissions from 2026 on.<sup>20</sup> In addition, the regulation foresees an obligation to use on-shore power supply or zero-emission technology in ports for container and passenger ships (with exceptions) from 2030.

As a part of the package of measures for shipping, the revised **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), 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.

<sup>&</sup>lt;sup>20</sup> Well-to-wake includes emissions occurring during the production of a fuel up to its bunkering on a ship. Tank-to-wake emissions are emissions occurring as soon as the fuel is in the tank on a ship until it is combusted in an internal combustion engine or used in a fuel cell.

There is a small overlap between the EU ETS and the **Effort Sharing Regulation** (ESR) regarding the coverage of ships 5,000 GT and above - and potentially of ships smaller than 5,000 GT in national coastal waters in the future. This overlap does not represent a double burden as ships above 5,000 GT in national waters only have surrender obligations under the EU ETS. The revised ESR<sup>21</sup> continues to cover domestic shipping (e.g. all shipping in national waters – inland and maritime shipping). In contrast to aviation activities falling under the EU ETS, (national) maritime transport is not excluded from the ESR (Article 2(1)). The overlap is small as many ship types that fall within domestic shipping (such as small ferries, motorboats and ships not serving commercial transport) are not covered by the EU ETS. Avoiding this overlap by, for example, reducing the scope of the ESR by only deducting the domestic emissions that are covered by the ETS is difficult as the EU MRV Regulation considers domestic emissions as intra-EEA emissions and it does not allow disaggregating navigation emissions per EEA countries.<sup>22</sup> If member states do, however, implement policy instruments to achieve the ESR targets, like the German national emissions trading system (nEHS), a double burden might be created for these ships. In Germany, the nEHS currently, however, exempts commercial shipping and there is thus no overlap/ double burden with the EU ETS.<sup>23</sup> If the exemption would be abolished, there would be an overlap regarding ships engaged in maritime transport in national/German waters. Furthermore, there will be a change to or convergence of the nEHS and the newly agreed EU ETS 2 in 2027 or 2028. However, the EU ETS 2 does not include shipping so far.

## **3 Outlook**

Further details of the maritime EU ETS are implemented via six implementing and two delegated acts. The ambitious implementation and alignment of the maritime ETS with other parts of the 'Fit for 55' package, particularly the FuelEU Maritime Regulation are important to create a coherent regulatory framework for the maritime sector in the EU. A next step is a report on the review of the EU MRV Regulation due by end of 2024 (EU 2015/757, Article 22a) particularly with the purpose to include smaller ship sizes. Further, the consistency of the EU MRV Regulation leading to potential amendments of one of the regulations.<sup>24</sup> Also, a feasibility report on extending the scope of the maritime ETS to ships below 5,000 GT will be due by the end of 2026 (Article 3gg(5)) and will build on the aforementioned EU MRV review in 2024.

In this context and with a view to evaluating and further developing the system, the following points are of particular importance:

- ▶ It must be checked whether the design of the EU ETS for the maritime transport provides a sufficient contribution to achieving the GHG neutrality target in 2050 (in combination with other measures) and whether a maritime transport-specific target for 2050, including 100% international and domestic maritime transport, needs to be established.
- The price level in the EU ETS might probably not be high enough in the short-term (as a sole incentive) to encourage the use of alternative fuels and other mitigation measures. The other measures of the legislative package such as the emission intensity standard of the FuelEU

<sup>&</sup>lt;sup>21</sup> Regulation (EU) 2023/857, Recital 9: <u>https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0857</u>

<sup>&</sup>lt;sup>22</sup> Compare impact assessment p.77: <u>https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021SC0611</u>

<sup>&</sup>lt;sup>23</sup> Note that the two policies regulate different entities: the ETS obliges shipping companies and the nEHS obliges fuel distributers.

<sup>&</sup>lt;sup>24</sup> Art.30(1) in FuelEU Maritime Regulation: <u>https://www.europarl.europa.eu/doceo/document/TA-9-2023-0262\_EN.html</u>

Maritime Regulation are therefore also important for the uptake of climate-neutral fuels in the sector.

- The risk of carbon leakage to neighbouring non-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 current design of the directive should be considered if the biennial reports by the Commission reveal substantial impacts of evasion.
- It might be interesting for future analyses to examine for what kind of projects and measures auction revenues will be used for in the maritime sector.
- The adoption of the ETS amendments needs to be communicated in a way that helps to increase the urgency on implementing a global market-based instrument as planned under the IMO while avoiding a significant double burden.
- ► The robustness of the monitoring and verification processes and some of the detailed administrative provisions in the EU MRV Regulation need to be reviewed and improved if necessary in upcoming subordinate regulations for the ETS and future reviews.
- 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 from the start. If after the feasibility report the inclusion of smaller ships in the EU ETS is not further pursued, these ships would have to be covered by other instruments in the long term to ensure that all emissions are addressed. Similarly, emissions from voyages which do not have a commercial transport purpose and from inland shipping will need to be addressed by the ETS or other policy instruments in the future to also contribute to reaching the EU climate targets.
- Due to the implementation of the EU ETS 2, the German nEHS will likely be revised or transitioned into the EU ETS 2 in the next years. Within this context, it will need to be considered whether (commercial) national shipping remains exempted or excluded from the nEHS or EU ETS 2. It will be important that double burdens are considered and that all shipping segments (sizes and types) are covered by emission reduction policies especially in light of future expansion of the EU ETS 1 to other ship types and sizes (see above).

#### **Editorial information**

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As of October 2023

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