

【欧州】 【海事】

Common - CO₂ emission trading market/Maritime Issues - Internal regulations of gas emissions: “Fit for 55” Package proposals to reduce CO₂ emissions from maritime transport

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【概要 : Summary】

Currently, the maritime transport sector still relies almost entirely on highly polluting and carbon intensive liquid hydrocarbons, such as heavy fuel oils, marine diesel oil or gas oil. To align the maritime transport with the European Green Deal targets to reduce the GHG emissions from the transport sector by 90% by 2050, it is important to rapidly reduce the maritime transport's GHG emissions.

Therefore, the European Commission presented a proposal as part of its “Fit for 55” Package to extend the EU Emission Trading System (EU-ETS) to the maritime transport sector. Based on the European Commission's proposal to extend the EU-ETS to maritime transport, the new rules would apply to vessels of above 5,000 tons and their emissions on intra-EU voyages, as well as half of the emissions from extra-EU voyages and emissions occurring at berth in an EU port. Furthermore, the same rules regarding auctioning, the transfer, surrender and cancellation of allowances, penalties and registries that apply to other sectors covered by the EU-ETS would then also apply to maritime transport, according to the Commission's proposal COM(2021) 551 final. The obligation to surrender allowances in the maritime transport sector is gradually phased-in

over the period from 2023 to 2025, with shipping companies having to surrender 100% of their verified emissions as of 2026, in accordance with COM(2021) 551 final. The extension of the EU-ETS to the maritime transport sector will ensure for the first time that GHG emissions from shipping will have to be reduced by creating the necessary price signal to reduce GHG emissions in the shipping industry.

Furthermore, the FuelEU Maritime proposal for a Regulation on the use of renewable and low-carbon fuels in maritime transport (COM(2021) 562 final) was also presented as part of the European Commission's “Fit for 55” Package of proposals on 14 July 2021. The FuelEU Maritime proposal is expected to increase the use of sustainable alternative fuels in shipping in the EU and at European ports, thereby driving the sector's decarbonization and sustainability.

【記事 : Article】

1. Maritime transport sector's GHG emissions

The maritime transport sector is playing an essential role in the global and the EU's economy for the transport of goods. Almost 90% of the global freight trade is seaborne, while 75% of EU's external trade and 36% of intra-EU trade is shipped by maritime transport. Maritime transport

also transports more than 400 million passengers each year at EU ports and thereby fulfils an important role in safeguarding the connectivity of the EU's peripheral maritime regions, and the EU's economy.

Considering the shipping industry's global share in the anthropogenic GHG emissions, it increased from 2.76% in 2012 to 2.89% in 2018, according to the IMO's "Fourth Greenhouse gas Study" of 2020 (IMO 2020). In the EU, the maritime transport emits 3-4% of all EU CO₂ emissions with around 144 million tonnes of CO₂ in 2018, as reported under Regulation (EU) 2015/757. Including emissions from intra-EEA and extra-EEA voyages as well as emissions occurring at EEA berth, its emissions are projected to grow quickly due to the growing demand for primary resources and containerised goods in Europe, if no mitigation measures are swiftly introduced, according to COM(2021) 551 final.

Due to the initially slow response of the International Maritime Organisation (IMO) to mitigate the CO emissions from international maritime transport, the EU acted unilaterally by introducing a Monitoring, reporting and verification (MRV) system for GHG emissions of maritime transport within the European Economic Area (EEA) in 2018, based on Regulation 2015/757. The Regulation 2015/757, as amended by Regulation 2016/2071, addresses the GHG emissions from shipping within the EEA by introducing a MRV system for vessels of 5,000 gross tonnage (GT) and above. The monitoring rules focus on CO₂ emissions, fuel consumption, distance travelled, time at sea and cargo carried on a per voyage basis and other parameters and started on 1 January 2018. Every year, the Commission publishes a report on the CO₂ emissions and energy efficiency information of the monitored fleet.

However, this current regulatory framework to address maritime GHG emissions is limited, as Regulation 2015/757 focuses solely on the

monitoring, reporting and verification of these emissions from ships in EEA ports.

At the global level, the IMO adopted an initial strategy on reducing GHG emissions from ships in April 2018. In November 2020, the IMO approved a technical and operational measure for existing ships. However, it is not sure if these IMO measures will be sufficient to decarbonise shipping in line with the IMO objective of reaching at least 50% emission reductions by 2050 (from 2008 levels).

Since the Commission's European Green Deal (COM/2019/640 final) calls for a 90% reduction in GHG emissions from transport by 2050, compared with 1990 levels, also the maritime transport's GHG emissions need to be reduced. To achieve the European Green Deal's target of net-zero carbon emissions by 2050, the European Climate Law (COM/2020/80 final) of 4 March 2020 set an intermediate target of reducing net GHG emissions by 2030. This target was amended by a Commission proposal on 17 September 2020 (COM/2020/563 final), to cut GHG emissions by at least 55% by 2030. Regarding GHG emission efforts in maritime transport, this will require both, using less energy by increasing energy efficiency and using cleaner types of energy by using renewable and low-carbon fuels.

2. The "Fit for 55" Package

Based on the European Green Deal's net-zero carbon emission target and the European Climate Law's target of reducing GHG emissions by at least 55% by 2030, the European Commission presented its "Fit for 55" Package on 14 July 2021. Considering the necessary measures to reduce GHG emissions from maritime transport, it requires measures to reduce the energy consumption by increasing energy efficiency and to utilise cleaner types of energy like renewable and low-carbon fuels. Therefore, the "Fit for 55" Package includes the extension of the EU-ETS scheme to maritime transport, amending Directive

2003/87/EC of the EU-ETS (COM (2021) 551 final), and it includes the FuelEU Maritime proposal (COM(2020) 562 final) to increase the use of sustainable alternative fuels and to accelerate the transition to new technologies. Other legislative revisions affecting maritime transport include a Proposal for a Regulation on the deployment of alternative fuels infrastructure, and repealing Directive 2014/94/EU (COM(2021) 559 final), a Proposal for a Directive amending Directive (EU) 2018/2001 (RED II) (COM(2021) 557 final), and a Proposal for restructuring the Union framework for the taxation of energy products and electricity (recast) COM(2021) 563 final).

3. The extension of the EU-ETS to maritime transport

As expected, since some time and as part of the “Fit for 55” Package, the European Commission proposes to include the CO₂ emissions from large ships of above 5,000 gross tonnage regardless of the flag they fly into the scope of the EU-ETS (COM(2021) 551 final).

The CO₂ emissions covered will be 100% of the CO₂ emissions from ships performing voyages departing from a port under the jurisdiction of an EU Member State and arriving at a port under the jurisdiction of an EU Member State (intra-EU), and 50% of the CO₂ emissions from voyages starting or ending outside of the EU (extra-EU voyages), according to Article 3g of the COM(2021) 551 final proposal. Furthermore, 100 % of CO₂ emissions from ships at berth in a port under the jurisdiction of an EU Member State will be covered (Article 3g Directive COM(2021) 551 final). Building on the provisions in place under the EU-ETS for other sectors as well as the existing EU Monitoring, Reporting and Verification (MRV) System for shipping, the revised EU-ETS would cover around two thirds of maritime transport emissions, or about 90 million tonnes of CO₂. The choice of 2008 as a base year for the emissions reduction

projections in maritime transport in COM(2021) 551 final is made to allow consistency with the IMO objectives that are all expressed in relation to 2008 (COM (2021) 551 final, p.2).

The shipping companies will have to purchase and surrender EU-ETS emission allowances for each tonne of reported CO₂ emissions (European Commission 2021). In addition to the EU-ETS rules on penalties, ships can be denied entry to EU ports where the responsible shipping company has failed to surrender the necessary allowances for two or more consecutive years (European Commission 2021). The phasing-in will take place over a period of three years and 100% coverage of the ships’ CO₂ emissions will be reached after 3 years (European Commission (2021)).

According to the proposal for a Directive COM (2021) 551 final), Article 3ga on the phasing-in of requirements for maritime transport, in 2023, shipping companies will only have to surrender allowances for 20% of verified emissions. In 2024 it will be 45% of verified emissions reported, in 2025 it will be 70% of verified emissions reported and in 2026 and each year thereafter, it will be 100% of verified emissions reported.

Before 1 February 2024 and based on the best available information, the Commission will publish a list of shipping companies, which performed a maritime activity covered by the EU-ETS on or with effect from 1 January 2023 (COM (2021) 551 final). The list will have to be updated at least every two years thereafter. The Commission shall adopt implementing acts to establish detailed rules relating to the administration of shipping companies (COM (2021) 551 final).

4. FuelEU Maritime proposal for increasing the use of renewable and low-carbon fuels

The FuelEU Maritime Proposal for a Regulation of the European Parliament and of the Council on the use of renewable and low-carbon fuels in maritime transport and amending Directive 2009/16/EC

(COM(2021) 562 final) as part of the “Fit for 55” Package intends to introduce a common EU regulatory framework to increase the share of renewable and low-carbon fuels in the fuel mix of maritime transport without creating barriers to the single market.

According to the Commission’s Proposal COM(2021) 562 final, currently, the fuel mix in the maritime sector relies entirely on fossil fuels and there are insufficient incentives for operators to cut GHG emissions due to the lack of mature, affordable, and globally utilisable technological alternatives to fossil fuels.

According to the Commission’s proposal COM (2021) 562 final, as the lifetime of ships ranges from 25 to 30 years on average, the transition towards alternative fuels needs to start now to avoid that fossil fuelled ships will still service global trade and EU-trade for decades to come. Vessels that use new low to zero carbon emission fuels like biofuels, hydrogen, ammonia or other potentially CO₂ emission-neutral fuels would have to be already available by 2030 to achieve some CO₂ emission reduction by 2050.

According to Article 2 of the Commission’s proposal COM (2021) 562 final, the scope of the Regulation covers all ships above a gross tonnage of 5000, regardless of their flag in respect to: (a) the energy used during their stay within a port of call under the jurisdiction of a Member State, (b) the entirety of the energy used on voyages from a port of call under the jurisdiction of a Member State to a port of call under the jurisdiction of a Member State, and (c) a half of the energy used on voyages departing from or arriving to a port of call under the jurisdiction of a Member State, where the last or the next port of call is under the jurisdiction of a third country. This Article 2 (c) corresponds to the scope and the coverage of GHG emissions of maritime transport under the proposal for a revised EU-ETS for maritime transport (COM (2021) 551 final).

Article 4 of COM (2021) 562 final establishes the limit to the yearly GHG intensity of the energy used on-board by a ship, while Article 5 establishes requirements for the use of on-shore power supply or zero-emission energy at berth for specific ship types and lists possible exceptions (COM (2021) 562 final).

According to Article 4, to accelerate the maritime transport’s decarbonisation through renewable and low-carbon fuels and technologies, the GHG intensity of energy used on-board by a ship should be gradually limited (COM (2021) 562 final). The maritime targets on the limits on GHG intensity of the energy used on-board compared to 2020 corresponds to the fleet average GHG intensity of the energy used on-board by ships in 2020, determined on the basis data monitored and reported in the framework of Regulation (EU) 2015/757. It is calculated by reducing the reference value by -2% from 1 January 2025; -6% from 1 January 2030; -13% from 1 January 2035; -26% from 1 January 2040; -59% from 1 January 2045; -75% from 1 January 2050 (COM (2021) 562 final). According to Article 5 of COM (2021) 562 final, additionally, zero-emission energy is used at berth from 1 January 2030. A ship at berth in a port of call under the jurisdiction of a Member State shall connect to onshore power supply and use it for all energy needs while at berth. This applies to containerships and passenger ships but will exclude ships that are at berth for less than two hours, or that use zero-emission technologies, among others (COM (2021) 562 final). FuelEU will force vessels to call at EEA ports to improve the GHG intensity of the fuels they use for those voyages. The requirements would consider the GHG emissions a fuel generates throughout its lifecycle, from its production to its final consumption by the ship, not just its use by the ship.

The “FuelEU certificate of compliance” means a certificate specific to a ship, issued to a company by a verifier, which confirms that that

ship has complied with the FuelEU Maritime Regulation for a specific reporting period. By 30 June of the year following the reporting period, the verifier shall issue a FuelEU certificate of compliance for the ship concerned (COM (2021) 562 final, Article 19) The verifier shall inform the Commission and the flag State, without delay, of the issuance of any FuelEU certificate of compliance (Article 19 (4)).

The proposal allows owners of different ships to pool ships together to help each other with compliance, provided those ships in the pool are verified by the same verifier. Companies that are not compliant with the rules by May 1 of the following year will have to pay a penalty. The amount of penalty would go into a green fuel fund. The Commission shall adopt implementing acts establishing models for the FuelEU certificate of compliance, including electronic models.

The Regulation on FuelEU Maritime COM(2021) 562 final on the use of renewable and low-carbon fuels in maritime transport and amending Directive 2009/16/EC shall apply from 1 January 2025.

However, while not all alternative fuels are both, sustainable and available at scale, to meet the sector's growing energy demand, the FuelEU Maritime initiative could stimulate the development, production, and demand for low and zero-carbon marine fuels.

5. Other legislative proposals affecting maritime transport

Besides the extension of the EU-ETS scheme to maritime transport (COM (2021) 551 final), and the FuelEU Maritime proposal (COM(2021) 562 final), the “Fit for 55” Package includes some more legislative proposals of measures considered necessary to address possible failures that could hinder the deployment of mitigating measures in the maritime sector. The review of several pieces of legislation includes the Proposal for a Regulation on the deployment of alternative fuels infrastructure, and repealing Directive

2014/94/EU (AFID), (COM(2021) 559 final), the Proposal for restructuring the Union framework for the taxation of energy products and electricity (recast) COM(2021) 563 final) and the Proposal for a Directive amending Directive (EU) 2018/2001 (RED II) (COM(2021) 557 final).

In the past, the legislation dealing with fuel supply (RED II) and infrastructure (AFID) had no significant impact on the uptake of renewable and low-carbon fuels (RLF) in the maritime sector. They need now to be complemented by measures that can create a demand for RLF in the maritime transport, among others.

Moreover, the Energy Taxation Directive (ETD) of 2003 laying down structural rules and minimum excise duty rates for the taxation of energy products used as motor fuel and heating fuel, and electricity needs to be revised, as an effective environmental taxation and the removal of incentives for using fossil fuels are needed to deliver the GHG emission reductions.

A Proposal for a Regulation of the European Parliament and of the Council on the deployment of alternative fuels infrastructure and repealing Directive 2014/94/EU of the European Parliament and of the Council, (COM(2021) 559 final) will replace the current Alternative Fuels Infrastructure Directive (AFID). The new regulation COM(2021) 559 final focuses on the extension of the adequate recharging and refuelling infrastructure. It will also ensure the access of ships and barges to electricity supply in major ports, among others. It also acts in synergy with the revision of the Renewable Energy Directive (RED II Directive (EU) 2018/2001), and the proposal on the FuelEU Maritime initiative, setting obligations on the supply of, and demand for, renewable and low-carbon transport fuels. Regarding waterborne transport, this new regulation COM(2021) 559 final is fully complementary to Fuel EU maritime initiative by ensuring that sufficient shore-side electricity supply is installed in ports to

provide electricity while passenger ships and container vessels are at berth. COM(2021) 559 final is also consistent with the revision of the Renewable Energy Directive (REDII), as it seeks to ensure that lack of recharging and refuelling infrastructure does not hamper the overall boost of renewable and low-carbon fuels in the transport sector, where they require distinct infrastructure (COM(2021) 559 final).

The Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council, Regulation (EU) 2018/1999 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources and repealing Council Directive (EU) 2015/652 (COM(2021) 557 final) will increase the mandatory share of renewable transport fuels. While the FuelEU Maritime Proposal aims to address sector specific challenges, the amendment of RED II (COM(2021) 557 final) will set the framework and targets for promoting renewables in the transport sector, including innovative renewable fuels.

The 2003 Energy Taxation Directive (ETD) lays down structural rules and minimum excise duty rates for the taxation of energy products used as motor fuel and heating fuel, and electricity. Individual Member States can freely set their own rates, as long as the ETD's minimum rates are respected. However, there is no link between the minimum tax rates of fuels and their energy content or environmental impact, and certain sectors are fully exempt from energy taxation in the EU. However, the revised ETD needs to better recognise the importance of alternative and sustainable fuels. The Revision of the Energy Taxation Directive (ETD) (Proposal for a Council Directive restructuring the Union framework for the taxation of energy products and electricity (recast) COM(2021) 563 final)) could support both, EU, and Member States, to encourage the switch to

cleaner energy and more environmentally friendlier choices regarding maritime fuels by using tax initiatives (COM(2021) 563 final).

The Proposal COM(2021) 563 final will alter the taxation of energy products by introducing a new structure of tax rates based on the energy content and environmental performance of the fuels and electricity, by including more products in the scope and by removing some exemptions. Thereby, the new taxation of energy products and electricity will support and complement other initiatives in the EU's "Fit for 55" Package.

6. Conclusion

Considering delays in the realisation of IMO's GHG emission reduction efforts, the EU's proposals on the inclusion of maritime transport within the EU-ETS and the FuelEU Maritime proposal underline the Commission's determination to act on the maritime transport's GHG emissions. The Commission intends to compensate the lack of progress at IMO level, regardless the fact that the IMO would be the adequate organisation to regulate maritime transport's GHG emissions.

Regarding the inclusion of the maritime transport under the EU-ETS, it can be expected that the inclusion of 50% fuels on voyages between EU Member States and third countries will cause criticism or even retaliation measures from third countries, as it happened in the past in case of GHG emissions from aviation and third country's airlines. The FuelEU Maritime proposal is expected to complement the introduction of the EU-ETS for maritime transport, which alone might not be sufficient to stimulate the use of low or zero-carbon fuels or the adaptation of adequate technologies. The basket of several legislative measures related to maritime transport in the "Fit for 55" Package is currently the EU's best option to reduce GHG emissions from maritime transport rather than waiting for the IMO to adapt similar measures. The legislative proposals in

the “Fit for 55” Package will be transmitted to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions for further consideration under the ordinary legislative procedure.

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