



OPINION

European Economic and Social Committee

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 – 2021/0210 (COD)]

TEN/751

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Section responsible	Transport, Energy, Infrastructure and the Information Society
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Outcome of vote (for/against/abstentions)	225/2/12

1. **Conclusions and recommendations**

- 1.1 The EESC welcomes the proposal for a Regulation on the uptake of renewable and low-carbon fuels in maritime transport and amending Directive 2009/16/EC (the "FuelEU Maritime Regulation proposal")¹. This proposal is aimed at contributing to the EU climate neutrality objectives by 2050 by setting up an EU fuel standard with increasing greenhouse gas (GHG) intensity requirements and accelerating demand of renewable and low-carbon fuels (RLF) in the maritime transport sector.
- 1.2 The EESC considers that the proposal for a regulation of the European Commission should be harmonised with the regulations of the International Maritime Organization, due to the international nature of shipping, including those related to the safety of fuels used by ships. At the moment, international shipping is fossil-fuel captive. Full decarbonisation requires alternative, low-carbon or zero-carbon marine fuels and/or breakthrough propulsion technologies, to become widely available. Close cooperation with all stakeholders in the maritime cluster and supply chain is necessary to ultimately reach this goal.
- 1.3 The climate carbon neutrality objectives of the Green Deal and the ambitious "Fit for 55" legislative package are desirable in the context of efforts towards greening and eventually decarbonising the maritime sector along other sectors, while at the same time respecting the social dimension of this transition in the best interests of the general public. In other words, this energy transformation and transitional process towards the decarbonisation of shipping can only be successful if there is social acceptance, whilst the modus operandi of shipping and other sectors are safeguarded.
- 1.4 The EESC notes that the impact of the FuelEU Maritime Regulation proposal on shipping is disproportional compared to other industries: short-term measures into 2030 are adequately described, but long-term changes that will deliver the bulk of the reduction in greenhouse gases in 2030-2050 are still largely target-shooting, comprising technologies that have not yet been developed, let alone matured. Hence, a certain degree of flexibility should be built into the regulatory parts of this proposal in order for the industry to be able to adapt to it. Concentrated support for R&D is urgently needed to accelerate the knowledge building, thus moderating risks.
- 1.5 The EESC believes that under the scope of the "Fit for 55" legislative package, the FuelEU initiative needs to provide synergies, coherence and consistency between supply, distribution and demand. However, the draft FuelEU Regulation, at the moment, prescribes particular low carbon fuels, with no prior assessment of their global availability and cost, although all alternative fuels should be allowed. This may eventually lead to distortion of competition, while their availability presently and for the near future is negligible. The responsibility for the development and availability of renewable alternative fuels lies with the fuel suppliers and the uptake of cleaner fuels should be encouraged. For this to happen, the price gap between fossil and alternative fuels needs to be bridged and the cleaner fuels need to become more affordable and widely available. Efforts are required, involving the active contribution of all actors in the

¹ COM(2021) 562 final.

maritime value chain, especially fuel production and energy providers, engine manufacturers, but also ports, charterers and the workers' representatives involved in all sectors. This could potentially result in an increase of the demand for alternative fuels as envisaged by the FuelEU Regulation.

2. Introduction

- 2.1 The EESC considers that shipping has an impact on the entire supply chain, as almost 90% of the world's goods are transported by sea. Also, that EU shipping with its global presence is a strategic asset enabling the EU to safeguard its geopolitical independence and increase its economic and industrial resilience, as well as its sovereignty. In 2019 approximately 46% of extra-EU exports and 56% of extra-EU imports of goods were transported by sea (Eurostat, 2021).
- 2.2 The EU controlled shipping fleet amounts to 810 million deadweight tonnes, consisting of 23.400 vessels and comprising 39.5% of the 2020 world fleet. The total economic impact of shipping is EUR 149 billion to EU GDP and approximately 2 million jobs. It is worth noting that for every EUR 1 million of GDP the shipping industry creates, another EUR 1.8 million is supported elsewhere in the EU economy.² According to the most recent estimates³, the share of total shipping emissions in global anthropogenic GHG emissions has increased from 2.76% in 2012 to 2.89% in 2018.
- 2.3 The EESC recognises that European shipping is committed to maritime safety, and the protection of the marine environment, contributing to international and EU decarbonisation efforts. Also, the EESC acknowledges that European shipping embraces these challenges and is committed to taking the lead for green shipping.
- 2.4 The FuelEU Maritime Regulation introduces standards for a gradually decreased average greenhouse gas intensity of fuel used on board by ships at berth, arriving at or departing from EU ports. Failure to meet these standards will result in administrative fines to shipping companies, which would ostensibly be used to support projects aimed at accelerating the use of renewable and low carbon fuels in the maritime sector and biofuels in particular. This proposal will unilaterally also have extra territorial application to international shipping, as its scope is identical with that of the EU Emissions Trading System (ETS) proposal⁴. It also mandates the use of OPS for two ship types after 1 January 2030 – passenger ships, and container ships.
- 2.5 The EESC notes that the draft FuelEU Maritime Regulation proposal has, in line with the "polluter pays" principle, recognised the structural role of the ship's charterer who is normally responsible for the choice of the ship's fuel, route, cargo and speed and the related cost of the fuel consumed (Recital 6). This is positive. However, the recognition of charterers' accountability is an important provision for the deliberations that will take place in the next

² European Shipowners' Association, 2021.

³ Fourth IMO GHG Study 2020.

⁴ COM(2021) 551final.

phase of the regulatory process, which will also involve the European Parliament and the EU Council.

3. General comments

- 3.1 The climate carbon neutrality objectives of the Green Deal and the ambitious "Fit for 55" legislative package are desirable in the context of efforts to greening and eventually decarbonising the maritime sector alongside other sectors, while at the same time respecting the social dimension of this transition in the best interests of the general public. In other words, this energy transformation and transitional process to decarbonisation of shipping can only be successful if there is social support and acceptance, whilst the modus operandi of shipping and other sectors are safeguarded. This can be achieved only by specific measures, such as the creation of new jobs, better public health and better mitigation measures for climate action and the protection of the environment. These efforts require involving the active contribution of all actors in the maritime value chain, especially fuel production and energy providers, engine manufacturers, but also ports, charterers and the workers' representatives in all involved sectors. Well targeted, clear, cyclical and transparent communication is essential for gaining the involvement and supportive contribution of society.
- 3.2 The impact of the FuelEU Maritime Regulation proposal on shipping is uneven compared to other industries: short-term measures into 2030 are adequately described, but long-term changes that will deliver the bulk of the reduction in greenhouse gases in 2030-2050 are still largely target-shooting, comprising technologies that have not yet been developed, let alone matured. In other words, the shipping sector's pathway to climate neutrality by 2050 is still uncertain, involving a wide range of technological options. In addition, there are major open questions about the supply, safety, distribution and costs of these alternatives. Hence, a certain degree of flexibility should be built into the regulatory parts of this proposal in order for the industry to be able to adapt to it. Moreover, an urgent time pressure stems from the long leadtime and the heavy upfront investment cycle of the wider sector covering all stakeholders.
- 3.3 On the one hand, the trajectory of emissions towards full decarbonisation hinges on the introduction and market uptake of economically viable and safe zero emission fuels and technologies. On the other hand, new means of propulsion, new low carbon or carbon-free fuels available worldwide and a joint collaborative effort with stakeholders in the supply chain are necessary to ultimately reach full decarbonisation.
- 3.4 Under the scope of the "Fit for 55" legislative package, the FuelEU initiative needs to provide synergies, coherence and consistency between supply, distribution and demand. This should be achieved by effectively complementing the Renewable Energy Directive (RED)⁵ targeting the supply of energy from renewable sources in particular and the Alternative Fuel Infrastructure Regulation targeting distribution infrastructure in EU ports⁶.

⁵ COM(2021) 557 final.

⁶ COM(2021) 559 final.

- 3.5 To this end, providing the right incentives between supply and demand is also essential. However, the draft FuelEU Regulation, at the moment, prescribes particular low carbon fuels, as all alternative fuels should be allowed, with no prior assessment of their global availability and cost. This may eventually lead to distortion of competition, while their availability presently and for the near future is negligible. The responsibility for the development and availability of renewable alternative fuels lies with the fuel suppliers and the uptake of cleaner fuels should be encouraged. For this to happen, the price gap between fossil and alternative fuels needs to be bridged and the cleaner fuels need to become more affordable and widely available. Efforts are required, involving the active contribution of all actors in the maritime value chain, especially fuel production and energy providers, engine manufacturers, but also ports, charterers and the workers' representatives in all involved sectors. This could potentially result in an increase of the demand for alternative fuels as envisaged by the FuelEU Regulation.
- 3.6 In mandating the uptake of cleaner fuels and biofuels in particular, the proposal seems to be ignoring the fact that such fuels may in reality never be available in sufficient quantities for international shipping and may not really be a viable alternative to fossil fuels. Imposing administrative fines in a situation where viable alternatives do not exist is punitive and a revenue-generating rather than an emissions-abatement measure.
- 3.7 The zero/low-carbon fuels required for shipping to decarbonise are currently unavailable, especially for deep-sea shipping, and will remain so in the near future. Huge investments are required for the production and worldwide availability of these fuels, which will have to be developed by out-of-sector stakeholders, namely, oil companies and energy suppliers more generally. In addition, alternative fuels, such as ammonia, methanol or hydrogen need a new generation of internal combustion engines and advancements in ship design and propulsion technologies, which come under the purview of engine manufacturers and shipyards, most of which are located in the Far East.
- 3.8 Pending the development of these alternative fuels, the long-term goals of the agreed IMO Initial Strategy for decarbonisation and the ambitious objectives of the European "Green Deal" and "Fit for 55 Package" cannot be achieved. More science-based profound knowledge is needed sooner in order to reduce decision-making risks and to be orientated towards the right investments. This is why the industry, along with several Member States with substantial maritime interests, made the proposal at the IMO to set up an R&D Board and Fund (the IMRB and IMRF proposal) to be funded initially by a mandatory contribution from each ship over 5 000 gt per ton of fuel consumed. The purpose of this initiative is to expedite the development of alternative fuels that the shipping industry needs but which it cannot develop. It is the urgency of the situation that has prompted this initiative and the shipping industry's willingness to contribute. It is sincerely hoped that this initiative will gain further substantial support at the IMO.
- 3.9 Safety considerations should also remain a crucial parameter in the research and development of alternative fuels, which is a very demanding, capital-intensive and time-consuming process. Addressing the safety challenges of these new fuels will require the development of new regulations and technical rules for their safe design and their safe use on board ships.

- 3.10 Requiring ships to comply with a European fuel standard without guaranteeing the availability of safe and adequate quantities of low and zero-carbon in ports worldwide would be a matter of significant concern. The European Commission Staff Working Document published in December 2020 accompanying the Sustainable and Smart Mobility Strategy⁷ forecasts that renewable and low carbon fuels will be as high as 5.5% to 13.5% of the fuel mix of shipping by 2030. The GHG intensity is determined on a "well-to wake" basis [Article 3-Definitions, para (p)] according to the methodologies and the sustainability criteria set out in the proposed revised Renewable Energy Directive (RED), where a multiplier of 1.2 for advanced biofuels and biogas produced from feedstock and for renewable fuels of non-biological origin is retained only for shipping and aviation. Furthermore, as highlighted in the proposal, it is reasonable to redirect biofuels towards transport sectors that are difficult to electrify, such as the maritime, long-distance transport and aviation modes⁸.
- 3.11 This additional MRV system specifies a methodology of lifecycle analysis (LCA) of fuels in the annex of the proposed Regulation. When companies intend to depart from the default values provided for in the Renewable Energy Directive (RED), they will be entitled to divert from the established default values for the tank-to-wake emission factors, provided that this is only done when values can be certified by one of the voluntary schemes recognised under RED (for "well-to-tank" values) or by means of laboratory testing or direct emissions measurements ("tank-to-wake"). The methodology for calculating carbon intensity and the emission factors are critical issues that will have to be thoroughly examined.
- 3.12 The EESC considers that the proposed Regulation as a regional measure risks undermining the ongoing discussions on the IMO's Initial Strategy for the decarbonisation of international shipping, which are proceeding well, are producing concrete results and are the only ones with a global perspective. The IMO member governments also agreed to start discussing mid-and long-term measures, including Market-based Measures (MBMs), as soon as October 2021, according to the agreed IMO work plan for medium- and long-term measures. The related IMO work stream that still needs to be completed concerns the Life cycle GHG/carbon intensity guidelines for all types of fuels. Until this work is completed within the framework of the IMO, double standards should be avoided.
- 3.13 The EESC finds relevant the recent initiative of the EU Member State governments to propose a global Low GHG Fuel Standard for international shipping for consideration at the forthcoming 10th meeting of the Intersessional WG on GHG⁹. The said proposal, inter alia, demonstrates for ships a pathway to compliance with the measure by proving that they have exclusively used fuels with a GHG emissions intensity at or below the limit value during the compliance period (e.g. blends of traditional fuels and renewable fuels), an approach similar to the IMO Marpol Annex VI (Regulation 14.1), which enforced the 2020 IMO Sulphur Cap for bunker fuels. The submitted paper also proposes a Well-to-Wake (WtW) certification scheme to be developed and validated by the IMO. In addition, given the ongoing discussions within

⁷ SWD(2020) 331 final.

⁸ TEN-748 draft opinion on the Review of the Renewable Energy Directive, paragraph 4.17 (See page XX of this OJ).

⁹ Document ISWG-GHG 10/5/3 (Austria et al) of 3.10.2021.

the IMO on the GHGs Life Cycle Assessment, once an agreement on a global approach is reached at IMO level on matters of relevance to the FuelEU draft Regulation, the EU legislation needs to be fully aligned with the international rules in accordance with Recital 42 of the proposed Regulation.

- 3.14 The IMO Decarbonisation Strategy has identified a list of candidate short-, medium- and long-term measures for CO₂ emission reduction. Taking a major step forward for the energy transition of the maritime sector, the IMO member governments, including all EU member States, at the International Maritime Organization (IMO) Marine Environmental Protection Committee (MEPC) 76th session, held from 10-17 June 2021, adopted a comprehensive package of legally binding technical and operational short-term measures to reduce CO₂ emissions from ships, which will enter into force on 1 November 2022.
- 3.15 More specifically, the measures adopted at MEPC 76 require ships of 400gt and above to calculate their Energy Efficiency Existing Ship Index (EEXI) following technical means to improve their energy efficiency, and all ships above 5 000 gt to establish their annual operational Carbon Intensity Indicator (CII) and CII rating. Carbon intensity links the GHG emissions to the amount of cargo carried over the distance travelled. The IMO will review the effectiveness of the implementation of the CII and EEXI requirements by 1 January 2026 to determine if any further amendments are necessary.
- 3.16 International shipping at large is the world's largest cross-trader, transporting between third countries for more than 90% of its trading capacity essential cargoes for the world economy, such as oil and oil products, gas, chemical products, iron and other ores, coal and fertilisers. Therefore, there must be global fuel availability of the required EU specification in ports around the world in order for international trade to run smoothly.
- 3.17 International shipping is primarily an SME-driven industry which, when it comes to bulk/tramp shipping is a genuinely entrepreneurial sector with the characteristics of a perfectly competitive market. This is because the sector comprises thousands of companies worldwide and is not dominated by a limited number of very large corporations or alliances, as is the case in liner shipping and most major industrial and service sectors globally. Therefore, SME-sized shipping companies do not have the bargaining power to distribute and cover new fuels in ports around the world.
- 3.18 The Commission impact assessment (IA) on the draft FuelEU Maritime regulation envisages an increased demand for renewable and low-carbon fuels (RLF) in the maritime transport sector, with the emphasis, inter alia, on liquid biofuels, decarbonised gas (including bio-LNG), e-fuels, decarbonised hydrogen-derived fuels (methanol and ammonia) and electricity. An increased uptake of biofuels is anticipated by the IA, while "the importance of biofuels is also recognised in particular for "hard-to-decarbonise" sectors, such as aviation and maritime transport".
- 3.19 There is the challenge of developing production and the required supply infrastructure of e-fuels worldwide. A new EU target of at least a 40% share of energy from renewable sources in 2030 is set under the revised RED proposal. However, it is recognised that shipping has greater decarbonisation challenges compared to other sectors, due to the current lack of market-ready

zero-emission technologies. Indeed, low-and zero-carbon fuels are not currently available for shipping in the market. In addition, the capital investment needed for developing production e.g. green-ammonia (e-ammonia), depending on the production methods and the specific fuel production pathways, is estimated to be approximately between USD 1.2-1.65 trillion (UMAS, 2020) and do not include the investments required for the supply infrastructure worldwide.

- 3.20 Therefore, the target set for a 75% average reduction in the greenhouse gas intensity of energy used on-board by ships by 2050 is overestimated. One of the biggest obstacles to decarbonising the maritime sector will be the provision of the new bunkering infrastructure that will be required in ports around the world to supply ships safely with alternative fuels. It is in the interests of the shipping industry for such infrastructure to be developed rapidly, so that new fuels are readily available globally, and from as many ports as possible, as this will make the price of zero-carbon fuels less expensive, thus facilitating compliance with the stated objectives of the proposed Regulation.
- 3.21 "Drop-in" fuels, such as advanced biofuels e.g. Hydrotreated Vegetable Oils (HVOs), which have limited compatibility with all modern ship engines (all vessel types irrespective of trade) that can burn biofuels without requiring technical, safety or design adjustments, could be a partial solution at least in the bulk/tramp sector. However, it is the responsibility of fuel suppliers to make sure that when mixed with fossil fuels, the specified blends are fit for purpose for use on ships and are made available in sufficient quantities in EU ports. Biofuels imported into the EU market should meet the EU's sustainability criteria as laid down in the revised RED II Directive (Annex IX, Part A and B). The draft FuelEU Maritime Regulation shifts the responsibility for meeting RED's sustainability criteria to ships. Moreover, incentivising the uptake of biofuel blends of the specified quality purchased outside the EU could present enforcement challenges, putting at risk the achievement of emissions reduction targets.
- 3.22 All candidate e-fuels, such as green ammonia or green hydrogen¹⁰ present certain market barriers (economical/technological/regulatory) that prevent their uptake as alternative marine fuels in the foreseeable future. The landscape of alternative marine fuels is not only fragmented but also undeveloped so their R&D should be reinforced and accelerated.
- 3.23 The methodology for calculating carbon intensity and the emission factors are critical issues that will have to be thoroughly examined, as well. Attention should be paid to the methane slip and the Indirect Land Use Change (ILUC) factor especially in relation to the uptake and use of biofuels and LNG. First generation biofuels cannot be considered long term sustainable materials due to their food-competitive land use and soil exhaustion.
- 3.24 Ultimately, as shipping is a truly global industry, global regulations are the most effective and efficient way forward. Any measures implemented at the EU level must be compatible with the regulations adopted by the IMO, striking a balance between international regulations and EU legislative initiatives.

¹⁰ As defined in TEN/718 on Hydrogen strategy, [OJ C 123, 9.4.2021, p. 30](#).

4. Specific comments

- 4.1 The responsible entity (fuel supplier instead of ship owner): Ship operators cannot be held responsible for either the quality or the availability of specified fuels. The carbon intensity of marine fuels should be regulated globally and subject to the adequate availability of non-fossil alternatives. These are currently unavailable for deep-sea shipping and will remain so in the near future. Ships cannot be held responsible for bunkering fuels that are either technologically immature or only available in very limited quantities and/or limited geographical areas. This would be comparable to asking car users to use a specific fuel mix that is not widely available on the market.
- 4.2 An explicit obligation on charterers to assume their fair share of responsibility: The "polluter pays" principle should apply in all cases. The responsibility of charterers, although recognised in the relevant European Commission legislative initiatives (EU ETS, FuelEU Maritime), does not explicitly oblige charterers to assume their responsibility. If the ship owner is made responsible for a ship's emissions, they would be burdened with the higher CO₂ emissions caused by the charterer's purely economic cost-benefit analysis, which would not be taking into account the negative environmental externalities. Such a situation would not only be unfair, but would also be counterproductive. As long as the charterer has no statutory responsibility, they will continue to base all operational decisions on cost considerations alone and will be exempt from the "polluter pays" principle, which must apply properly in shipping as in all other sectors.
- 4.3 Avoiding double counting/requirements: This proposal introduces a second EU MRV system for the purposes of the proposed Regulation. While it is of the utmost importance that flexibility is safeguarded, the introduction of double counting or double requirements should be avoided as far as possible by homogenising MRV methodologies.
- 4.4 Avoiding the creation of an unworkable compliance mechanism: The draft proposal also creates a complex pooling compliance mechanism of excess carbon intensity credits of fuel used by over-compliant ships. This arrangement is subject to a pooling arrangement with harmonised penalties for non-compliance and credit transfer between different companies with over-performing and under-performing ships certified by the same verifier. Instead, a flexible mechanism is proposed for inclusion in the proposed Regulation, initially applying only to e-fuels¹¹ used by ships with a phased-in implementation schedule (similar to the deployment of Onshore Power Supply (OPS) – Article 5 of the proposed Regulation is relevant). If this is accepted, the requirements would be gradually extended to all renewable and low-carbon fuels (RLFs) (subject to a review clause and an impact assessment in the future, also addressing availability of RLFs for the maritime sector and issues of competition of RLFs with other transport modes, for example). Gradually, partnerships will be promoted between market players that have invested in "green" fuels wishing to pool their compliance units and make joint notifications to the same accredited verifier.
- 4.5 Extension of exemptions for deployment of OPS after 2034: While recognising the need to prioritise the deployment of OPS in terms of delivering tangible cost-effective reductions of

¹¹ E-fuels include e-ammonia, e-methanol, synthetic diesel, synthetic fuel oil and e-gas (p. 7, Annexes to COM(2021) 562 final).

GHG emissions and air pollution at berth, focusing on container ships and passenger ships, the exemption from mandatory use of OPS for the above-mentioned shipping segments when infrastructure is not available in the port and when a ship's on-board on-shore power equipment is incompatible with the port's installation should not be limited after 2034.

Brussels, 8 December 2021

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The president of the European Economic and Social Committee
