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German Energy Agency

Statement on the European Commission's proposal for a FuelEU Maritime Regulation

The Global Alliance Powerfuels welcomes the proposal for a FuelEU Maritime Regulation as part of the Fit for 55 package. Together with the inclusion of maritime transport in the EU ETS, this regulation will constitute a very important step to ramp up alternative fuels in maritime transport. While an inclusion of shipping in the ETS is a measure to reduce total shipping emissions, and the recast of the revised Renewable Energy Directive (REDII) can ensure that a sufficient and increasing amount of renewable fuels of non-biological origin (RFNBOs) are supplied to prioritised applications like maritime transport, the FuelEU Maritime Regulation supports the uptake of renewable shipping fuels in the fuel mix. Alternative fuels will play a central role in the decarbonisation of maritime transport, with RFNBOs being the most viable fuel option as they can be scaled up to the required volumes.

The **Global Alliance Powerfuels** was founded in 2018 and is backed by 14 member organisations and an international network of over 20 partner institutions. It is coordinated by the German Energy Agency (dena). The strategic objective of the Alliance is to foster the development of a sustainable global market for powerfuels.

The term **powerfuels** denotes not only renewable hydrogen but also all other gaseous and liquid energy carriers and feedstocks from power-to-X processes that draw their energy content from renewable electricity. This includes, but is not limited to, synthetic gas (e.g. methane, hydrogen) and synthetic liquid fuels (e.g. methanol, ammonia, and Fischer-Tropsch products).

Powerfuels complement the direct use of renewable energy and are crucial where direct electrification is not technologically feasible or economical. By offering climate-neutral options to applications with no viable alternatives, powerfuels allow for more far-reaching de-fossilisation of all end-use appliances, across all sectors – thus enabling system-wide emissions reductions in a technology-neutral approach. Powerfuels can also accelerate the integration of the energy system by replacing fossil energy sources in existing end-use consumer equipment in the short-term and offering flexibility as a long-term storage option.

Position and recommendations of the Global Alliance Powerfuels

In the following statement, we would like to express our support for the regulation and at the same time propose amendments and adjustments regarding the level of ambition, the scope, and the incentivisation of the use of RFNBOs.



Level of ambition

The FuelEU Maritime Regulation will oblige ship operators to reduce the GHG intensity of energy consumed on board, based on a full well-to-wake GHG-calculation method. The GHG intensity reduction pathway (from a 2020 baseline) proposed by the EU Commission is 2% in 2025, 6% in 2030, 13% in 2035, 26% in 2040 and reaching 75% in 2050. The proposed amendments of the European Parliament suggest higher targets of 20% (2035), 38% (2040), 64% (2045), and 80% (2050).

We support a higher level of ambition beyond the suggestion of the Parliament in order to ensure alignment with the urgency of action to reduce GHG emissions in maritime transport. In line with the overall goal of climate neutrality in 2050 in the EU, maritime transport emissions should also be reduced to net zero by 2050. An earlier introduction of ambitious targets would help to send a strong and reliable market signal to ship owners and operators to make necessary investments in sustainable fleet development. We propose a higher starting value in 2025 and a continuous increase of the target, starting with 3% in 2025, and reaching 10% in 2030, 25% in 2035, 50% in 2040, 75% in 2045, and 100% in 2050.

Incentives for RFNBOs

The FuelEU Maritime Regulation is technology-open regarding the ship operators' fuel selection. This approach favours more cost effective fuel options such as LNG and biofuels to meet the targets, instead of using RFNBOs. At a high level of ambition, the use of RFNBOs would be necessary earlier, as the use of biofuels is limited by availability and LNG has a significantly lower GHG reduction potential vis-à-vis conventional marine fuels compared to renewable fuels and in particular RFNBOs.

Clear market signals are needed to incentivise the ramp up of RFNBO production capacities as well as the ordering of new ships that can run on RFNBOs such as methanol or ammonia. Therefore, in addition to higher targets, we also support the introduction of a dedicated quota for RFNBOs in the FuelEU Maritime Regulation.

RNFBO quota

The European Parliament has proposed a quota for RFNBOs of 2% from 2030 and a multiplier of two until 2035. In the Council, the German government has previously also voiced support for a dedicated RNFBO quota in a position paper proposing a quota that would evolve from 2% in 2030, 5% in 2035, 12% in 2040, and 29% in 2045 to 70% in 2050.

In the EU, about 44 million tonnes of marine fuels were bunkered for maritime transport in 2017. A 2% RNFBO quota as proposed by the European Parliament would be equivalent to about 900 000 tonnes of synthetic diesel. This amount of synthetic diesel or methanol could be transported by approximately three large oil tankers. If the quota was fully met with ammonia, which has a lower energy content, about 2 million tonnes of it would have to be used. The required quantities of powerfuels to meet such a quota are thus large, but could be made available following estimates of the potential development of production capacities in the EU. A more ambitious quota of 6% in 2030,



equivalent to 85 PJ of powerfuels, would, if met completely with ammonia, require hydrogen production capacities that amount to 7.5 GW as recent calculations conducted by Transport&Environment show¹, which is approximately equivalent to 7% of the target set for 2030 for renewable hydrogen production in the EU in the REPowerEU plan.² Even a quota that exceeds the level of ambition proposed by the Parliament would thus be technologically achievable.

We therefore support an RFNBO quota of at least 2%, as proposed by the European Parliament, coupled with a clear and binding pathway for further increases, as we assume based on calculations of the corresponding RFNBO volumes that the level is on the one hand achievable and on the other hand ambitious enough to provide investment certainty and kick-start projects.

The European Parliament proposes to review the RFNBO sub-target for 2030 by 2028. We generally support a review of targets to bring them in line with both technological and market developments. Nevertheless, a review that could lead to both a lower or higher final quota with such a short turnaround time decreases plannability for ship operators. We thus suggest to increase the time between review and the target that is being reviewed to allow for higher certainty. In addition, in order to avoid that operators deliberately delay the uptake of RFNBOs to achieve a reduction of the target, it should only be possible to increase the quota following the review.

Recommendation for international measures at International Maritime Organization (IMO) level

We support the EU's clear ambition to establish global maritime agreements at IMO level, as the effectiveness of an EU regulation as FuelEU Maritime is limited due to its regionally confined scope. The revision of the IMO's greenhouse gas strategy is set to be adopted in 2023³ and offers an opportunity to establish a global agreement. On a trip between an EU and a non-EU port, only half of the energy consumed on board a ship falls within the scope of the FuelEU Maritime regulation. Ship operators could plan their route and bunkering of fuels in such a way that trips between EU and non-EU ports are as short as possible, which would result in only small quantities of alternative fuels having to be used to achieve the required greenhouse gas intensity of the fuel mix. The possibility for evasive behaviour is accounted for in the recent proposal of the European Parliament, which suggests not to consider stops at non-Union ports within 300 nautical miles of the EU as stops in ports of call within the meaning of the regulation. In consequence, for voyages from a non-EU to an EU port where container ships make an intermediate stop in a neighbouring transshipment port, the obligations under FuelEU Maritime would still extend to 50 % of the energy used for the entire trip. Nevertheless, a mandatory IMO scheme on the use of renewable and low carbon fuels for international voyages at the global level should still be pursued.

¹ https://www.transportenvironment.org/wp-content/uploads/2022/02/20220324_TE-Report-FuelEU-Maritime.pdf

² Assuming electrolyser efficiency of 70% and 4,500 full-load hours

³ <https://www.imo.org/en/MediaCentre/HotTopics/Pages/Reducing-greenhouse-gas-emissions-from-ships.aspx>



Definition and certification of renewable and low-carbon fuels used in the maritime sector

The FuelEU Maritime proposal includes carbon dioxide, methane, and nitrous oxide emissions in a well-to-wake assessment. It applies to ships with a gross tonnage of 5000 and above. The proposal further provides that certification of biofuels and RFNBOs should rely on the rules established by the REDII, i.e. using mass balancing. We generally support this approach.

Where RFNBOs are to be credited against the targets, they need to meet the threshold of 70% GHG emission reductions set in the REDII and their specific emissions factors are to be determined according to the methodology set out in the outstanding delegated act to Art. 28 REDII. A multiplier for RFNBOs in the maritime sector of 1.2 is unanimously proposed by the European Commission, Parliament and Council for the revision of the revised Renewable Energy Directive (REDII). Additionally, a supply-side sub-target for RFNBOs in the maritime sector of 1.2% from 2030 is proposed by the Parliament for the REDIII. The recent preliminary political agreement on the revision of the ETS Directive obliges companies to surrender allowances for 100% of emissions from 2026 going forward and covers off-shore ships with a gross tonnage above 5000 from 2027. The inclusion of general cargo vessels and off-shore ships from 400 gross tonnage upward will be reviewed in 2026. The Alliance suggests that scope, definitions and targets of renewable fuels need to be streamlined in-between EU legislations which impact shipping. This includes an alignment of the volumetric threshold for ships covered by the ETS and FuelEU Maritime obligations during the review process in 2026 and a harmonisation of the demand and supply-side RFNBOs targets in the FuelEU Maritime Regulation and the revision of the RED II, respectively.

With regard to low-carbon fuels, the Commission's proposal for the revision of the Gas Markets Directive provides for the methodology for assessing the total GHG emissions and emission savings from low-carbon gases to be specified in a Delegated Act by December 31, 2024 (Art. 8 of the Gas Markets Directive). As this creates significant investment uncertainty, including for companies considering both powerfuels and low carbon fuels projects, the Alliance calls for the Delegated Act to be adopted by the end of 2023 at the latest.



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