

FuelsEurope position on reducing greenhouse gas (GHG) emissions in shipping

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1. Executive Summary: Marine Emissions in the EU Climate Ambition

Shipping is the backbone of international trade and commerce and an indispensable driver of EU prosperity. At the same time, maritime transport was responsible for the emission of 1,076 million tonnes of GHG in 2018, about 2.9% of global anthropogenic GHG emissions, according to the 4th IMO GHG study. Shipping emissions are projected to increase from 90% of 2008 emissions in 2018 to 90% and 130% of 2008 emissions by 2050 for a range of plausible long-term economic and energy scenarios in accordance with the Initial IMO Strategy on reduction of GHG emissions from ships.

Hence, for the EU to curb the rising GHG emissions from this important sector, and thus realising the [EU Green Deal](#)'s ambition of climate neutrality by 2050 whilst remaining prosperous and competitive, it will need practicable and science-based policy solutions.

FuelsEurope fully supports the EU Green Deal's ambition of climate neutrality by 2050. In view of the dramatic challenges to the economy created by the Covid-19 crisis, FuelsEurope and its members recognise that there is no business as usual and are ready to fully play their part by developing alternative fuels, products, and services needed to achieve the climate-neutrality objective.

Specifically, the refining industry's [Clean Fuels for All strategy](#) indicates how low-carbon liquid fuels¹ for transport could contribute to the EU net climate neutrality goal, enabling the decarbonisation of maritime, aviation and road transport. The full-scale deployment of technologies for the production of these low-carbon fuels requires policies providing clear, stable and strong regulatory signals to investors. To facilitate a reduction of GHG emissions from shipping specifically, we strongly believe the following principles are necessary determinants of success:

- Given the international market structure of the shipping sector, global approaches should be the primary lever to drive the reduction of GHG emissions. We hence invite the EU to collaborate closely with its partners in the IMO, as well as endeavour to avoid climate ambition gaps between the EU and the rest of the world in the maritime sector, and regulatory overlap with the IMO energy efficiency design index (EEDI) and ship energy efficiency management plan (SEEMP).
- To curb the GHG emissions from the shipping sector efficiently, any policy regime should consider GHG abatement along the full value chain of marine transport, from efficient ship design and ship operation, over low-carbon port infrastructure, to sustainable marine fuels.
- As part of any basket of policy solutions, establishing a market for low-carbon marine fuels will be an essential component. Key enablers of such a market would be a sufficiently high carbon price,

¹ Low-carbon fuels are able to reduce CO₂ emissions during their production and use (also referred to as “well-to-wake”) compared to conventional, fossil-based fuels.

predictable regulatory framework, investment certainty, a well-to-wake consideration of shipping emissions to support their long-term sustainability, as well as a technology neutral approach.

- If the EU wishes to move ahead of the international community with regard to shipping decarbonisation and create the enabling conditions for a low carbon marine fuels market, it should do so in a manner that avoids carbon leakage, safeguards the competitiveness of the EU shipping sector and marine fuel industry, and avoids frictions or redundancies between global and national policy schemes. Options for the EU could include:
 - Integration of shipping into a dedicated, stand-alone cap & trade system.
 - Regulation on sustainable marine fuels through carbon intensity requirements.
 - Policy levers that provide investment support, which may include fiscal measures.

2. The Case for a Globally Integrated Approach

Handling almost 90% of the EU's external freight trade², the shipping sector is a distinctly global market that will require similarly global solutions if GHG emissions are to be meaningfully reduced. With this in mind, the **IMO should be the principal forum to address GHG emissions reductions in shipping in a coordinated manner with global partners.**

Beyond this, **we invite the EU to avoid ambition gaps between the EU and the rest of the world in the maritime sector**, and ensure consistency with global regulatory regimes to avoid legislative overlap or discrepancies. Currently, a number of IMO policies are already successfully driving emissions reductions:

The Energy Efficiency Design Index (EEDI)

- Facilitates improvements in energy efficiency of new vessels, and does so successfully, as noted in the EU's recent [2019 Annual Report on CO₂ Emissions from Maritime Transport](#). These measures may range from, but are not restricted to, using "lighter materials, slender designs, less friction, [and] waste heat recovery"³:
 - The IMO is already advancing the EEDI phase 3 from 2025 to 2022 for some segments. To avoid market fragmentation, and maximise the effectiveness of this scheme, **we recommend maintaining alignment with the IMO targets.**

The Ship Energy Efficiency Management Plan (SEEMP)

- Facilitates improvements in operational efficiency, from reducing ship speed, to increasing ship loading factor, and optimising the ship-port interfaces:
 - Operational energy efficiency standards on a global level are complementary measures to meaningfully reduce shipping emissions. **We invite the EU to advocate at the IMO for the consideration of the well-to-wake contribution of marine fuel** towards the carbon intensity counted under the SEEMP to facilitate the deployment of sustainable marine fuels and trigger up-stream emissions reductions through Carbon Capture and Storage (CCS), Carbon Capture and Utilisation (CCU), and decarbonised hydrogen⁴.

² https://ec.europa.eu/transport/modes/maritime_en

³ <https://www.itf-oecd.org/sites/default/files/docs/decarbonising-maritime-transport-2035.pdf>

⁴ Including both hydrogen produced from electrolysis with renewable electricity, as well as hydrogen produced from steam-methane reforming and CCS.

In case the EU pursues specific measures within its own jurisdiction, we recommend lawmakers to consider the following principles to deliver on the EU's climate objective:

- Ensure coherence between regional and global measures; **we invite the EU to design policy which, even if first deployed regionally, can be expanded in scope to provide global solutions.**
- Carefully impact-assess the effects of EU-specific policy measures aiming at creating a meaningful carbon price on the international competitiveness of the marine business. Whilst facilitating the uptake of low-carbon technologies, these policies may make shipping to/from the EU more expensive. Hence, **we ask the EU Commission/Member States to ensure that their respective measures are effective in reducing global GHG emissions** from shipping.
- Consider the sector's projected growth over the next decades, and design policy that reduces GHG emissions without limiting maritime transport as such.

3. Design Principles for Creating a Market for Low-Carbon Marine Fuels

In addition to measures under the EEDI and SEEMP, complementary policy signals are needed to build a business case for sustainable marine fuels (SMF). SMF may take the form of sustainable first generation and advanced biofuels, renewable ammonia and methanol, LNG, decarbonised H₂, as well as e-fuel or non-biological origin fuels and will be an integral part of the solution, alongside other options. While a number of studies attest to their GHG savings potential⁵, the commercialisation has so far been slow, impeded by the high costs for first movers, very limited demand, the absence of a coherent policy framework, and international competitive pressures. For SMF to become a part of the EU maritime decarbonisation strategy, we believe the following design principles to be important enablers of success:

- Regulatory predictability is an important pre-condition for mobilising investment, and minimising the risk profile of low-carbon projects generally, and sustainable marine fuel particularly:
 - This entails that the respective sustainability criteria underlying the eventual policy design are sufficiently robust and coherent with other transport modes to develop synergies and avoid arbitrage.
- Ensure a technology neutral approach, meaning that the same regulatory principles should apply regardless of the technology.
- A well-to-wake approach at an international level.
- Develop a market for low-carbon fuels with a sufficiently high carbon price to support a business case for SMF's supply and uptake, whilst being mindful of the competitive effects of regionally specific measures.
- To develop new solutions to reducing shipping emissions, and scale up existing ones, sufficient funding for R&D activities are vital, and access to finance for low-carbon projects for all shipping segments should be actively facilitated.
- Enabling the decarbonisation of the shipping sector requires an integrated approach along the full value chain, taking into account not just the ship and its fuel, but also port infrastructure. **We would welcome if the upcoming revision of the Directive for Alternative Fuel Infrastructure take these points into considerations.**

⁵ Link to Ricardo study once published (2020)

- Establish policy in a way that facilitates industrial synergies between fuel, waste & residue, and other industrial clusters.

4. Policy Options to Facilitate the Deployment of Low-Carbon Fuels at EU level

FuelsEurope points towards the following considerations when designing policy solutions to reduce emission on the shipping sector:

Option 1: Applying a dedicated cap & trade mechanism to the maritime sector

- **Should the EU apply a cap & trade system to the shipping sector, FuelsEurope recommends to establish a dedicated, stand-alone marine ETS, separate from the main EU ETS.** With the ship operator/ owners as the obligated party, this measure would draw on data gathered under the MRV Directive (include vessels >5000GT, hence capturing around 90% of emissions measured under the MRV system⁶, possibly complemented with a de-minimis threshold for small operators based on annual CO₂ emissions as exists for aviation. The emissions covered by this cap & trade systems are those emitted from the ship (i.e. the “tank-to-wake” GHG emissions), with sustainable biofuels, waste-to-fuel, and e-fuels all deemed zero emissions. In this scenario, SMF would reduce the amount of allowances that are surrendered consistent with the well-to-wake GHG savings of the fuel used, in a manner that is entirely technology neutral. In addition, a price corridor for allowances may be established to provide additional investment certainty.
- Considering the administrative challenges of applying an ETS to shipping emissions (such as monitoring of emissions and emission reports), **FuelsEurope recommends to apply the cap & trade system to intra-EU voyages only.**
- **FuelsEurope does not support bringing shipping emissions into the main ETS** since it would send only a weak incentive for decarbonisation, as the comparatively high marginal abatement costs in the shipping sector would risk cross-subsidisation of other, less difficult to abate, sectors. In addition, the cascading effects on other EU ETS sectors should be carefully impact assessed prior to changes to the system’s scope. With a sharp linear reduction in available allowances, coupled with a the projected growth in the shipping sector, the price of allowances might rise beyond what EU industry exposed to international competitive pressures may be able to tolerate. Strengthened carbon leakage protection mechanisms would hence be indispensable to ensure its resilience.
- The eventual integration of the stand-alone European Marine ETS into a global system should be sought, by advocating at IMO level and seeking to avoid overlap with other existing, comparable cap & trade systems around the world, including Europe.
- We recommend to ear-mark revenues from auctioned allowances for them to remain into the shipping sector through funding mechanisms for decarbonisation projects, which may include ships themselves, ports, and fuel infrastructure.

Option 2: Regulation on Sustainable Marine Fuels through carbon intensity requirements

- **Should the EU set a regulation on sustainable marine fuels, we believe that this regulation should be on a well-to-wake carbon intensity basis.** Setting a carbon intensity (CI) factor for marine

⁶ [2019 Annual Report on CO₂ Emissions from Maritime Transport](#)

transport, with the ship operator as the obligated party, would incentivize development of SMF, whilst remaining entirely technology neutral.

- A regional carbon intensity scheme would face considerable risk of carbon leakage. Hence, **we invite the EU to maintain close alignment with the IMO and international partners.**
- When considering the efficacy of a CI factor in shipping, we invite the EU to consider the supply and demand of low carbon technologies across all transport modes. The road sector, given its present regulatory environment, price structure and scale, coupled with its lower sensitivity to carbon leakage, is an important lead market that will be critical for providing a business case to mobilising investments and innovation in low-carbon fuels for marine.

Possible introduction of Taxation as a complementary lever

- If taxation of marine fuels is introduced, it should be used smartly and **should be aimed at directly incentivising the use of SMF.** If the EU would consider marine fuel taxation **it should be based primarily, or wholly on the combustion CO₂ of the fuel used.** The portion of CO₂ emitted by SMF during use which is of renewable or recycled nature should enjoy tax exemption, as well as electricity, as a means to drive the deployment of sustainable alternative fuels, and facilitate the deployment of alternative port infrastructure.
- Fuel taxation alone is unlikely to deliver sufficient incentives to facilitate the deployment of SMF at scale, particularly due to the risk of carbon leakage. However, if set up in a way that is harmonised across the EU, and sufficiently stable, it may serve as a complementary policy lever to build a business case for SMF.

FuelsEurope, the voice of the European petroleum refining industry

FuelsEurope represents with the EU institutions the interest of 40 companies operating refineries in the EU. Members account for almost 100% of EU petroleum refining capacity and more than 75% of EU motor fuel retail sales.

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