



SUSTAINABLE & SMART MOBILITY STRATEGY

FuelEU Maritime







2 September 2021 DG MOVE D.1

Mobility and Transport

Context

- In March 2020, the Commission put forward the proposal for the first **EU Climate law**. It aims to write into law the goals set out in the European Green Deal.
- In the 2030 Climate Target Plan, the Commission proposed to cut EU GHG emissions by at least 55 % in 2030 and to become climate neutral in 2050.
- The targets were endorsed by the European Council in December 2020.
- Parliament and Council provisionally agreed on these targets in April 2021.
- On 14 July, the Commission proposed the Fit 55 package to implement the targets.







Initiatives that concern maritime transport ("basket of measures")

- Emission Trading System gradual extension to maritime from 2023 with 3-year phase-in period, same CO₂ price across sectors, yearly 'cap' on the total emissions covered by the system and gradual reduction of cap over time, attribution of shipping companies to national administering authority to ensure compliance
- Energy Taxation Directive no exemptions for fuels used in intra-EU maritime and in inland shipping; tax exemption possibility for shore side electricity; zero minimum rates for sustainable fuels (biofuels and biogas, low-carbon-fuels, renewable fuels of non-biological origin, advanced sustainable biofuels and biogas, and electricity) for 10-year transitional period
- Renewable Energy Directive counts energy used in international shipping towards the target, multiplier for renewable fuels of non-biological origin and advanced biofuels and biogas supplied to maritime
- **Regulation on Alternative Fuels Infrastructure** TEN-T core and comprehensive ports to provide OPS for passenger and container vessels (in line with fuelEU maritime). Existing provisions on LNG remain unchanged
- Energy Efficiency Directive counts energy consumption in domestic maritime (excluding international maritime bunkers)
- Effort Sharing Regulation national targets continue to include domestic maritime
- FuelEU Maritime



AFIR: Art 9, Shore side electricity

- Minimum shore-side electricity supply to be provided in maritime ports if certain conditions are met:
 - **TEN-T core and comprehensive ports** (exemption for islands not connected to the grid)
 - **Types of ship** and **number of port calls** in last three years: 50 calls/year for container ships, 40 calls/year for ro-pax and high-speed passenger crafts, 25 calls/year for other passenger ships (cruise).
 - **Gross tonnage** of those calls (> 5000 GT)



If conditions are met, ports to install shore-side power output sufficient to satisfy at least 90% of demand (in terms of port calls)



AFIR: Art 11, LNG maritime

- Member States shall ensure that an appropriate number of refuelling points for LNG are put in place at TEN-T core maritime ports referred to in paragraph 2, to enable seagoing ships to circulate throughout the TEN-T core network by 1 January 2025. Member States shall cooperate with neighbouring Member States where necessary to ensure adequate coverage of the TEN-T core network.
- Member States shall designate in their national policy frameworks TEN-T core maritime ports that shall provide access to the refuelling points for LNG referred to in paragraph 1, also taking into consideration actual market needs and developments.



Why a proposal for maritime fuels? FuelEU



FuelEU Maritime Regulation



European Commission Mobility and Transport

Ways to reduce maritime emissions

Meeting the climate targets would require significant progress on two aspects:

- Improvement of energy efficiency (covering logistics, design, technical improvements and operations) – *i.e. using less fuel*
- Greater use of renewable and low carbon fuels – *i.e.* using cleaner fuels



DNV-GL (2019) | Maritime Forecast to 2050



Challenges

- To reach the climate targets in 2050, maritime sector should use close to 90% of renewable and low-carbon fuels. Today: fossil fuels over 99% of the fuel mix
- Need to **complement ETS** by specifically addressing the technology issue related to fuels, which may not be sufficiently incentivized by the ETS price signals in the short-medium term
- Harmonised rules to ensure smooth operations and avoid distortions in the internal market
- EU supports **global measures** at IMO, where discussions are beginning. The EU submission to IMO on a low GHG fuel standard reflects the proposal. Proposal on guidelines on well-to-wake GHG emission is also coherent with the FuelEU Maritime approach



Challenges

- Long lead times for fuel supply chains and fleet renewal: need for immediate, yet gradual action. Regulatory predictability is key
- Not a single technological option for the large variety of ship types and trades. Operators are trapped in a "wait-and-see attitude"
- **Coordination failure between supply, distribution and demand**. Need to complement Renewable Energy Directive (supply) and Alternative Fuel Infrastructure Regulation (distribution) to break the chicken-and-egg issue
- **Obligations must be imposed on demand** not only to promote investments in supply and distribution, but also to avoid carbon leakage



FuelEU Maritime as part of Fit for 55



- Complementary with ETS: ETS promotes energy savings while FuelEU addresses fuel technology.
- Complementary with RED and AFID: FuelEU addresses fuel demand, RED fuel supply and AFID fuel distribution - breaking the chicken-and-egg issue.
- **Complementarity with ETD**: taxation levels for renewable and low-carbon fuels and for electricity at berth are consistent with FuelEU goals.



Proposed approach (I)

- Focus on fuel and on demand (but other aspects are covered elsewhere!)
- **Technology-neutral approach:** maritime operators will need to use an increasing proportion of zero and low carbon sustainable fuels, without obligation to use a specific technology
- Inclusion of CO₂, methane and nitrous oxide on a full well-to-wake calculation: allows fair comparison of fuels and is in line with the approach promoted by EU in IMO
- Obligation on **yearly average** instead of single voyage: provides flexibility

Article 4 sets limits on the yearly average GHG intensity of the energy used on-board (CO2eq/MJ)



Commission | Mobility and Transport

Proposed approach (II)

- Level of ambition is in line with the Climate Target Plan 2030 (consistency with other measures; constraints of fuel availability and production is respected; etc.)
- Targets are established in 5-year intervals from 2025 until 2050: regulatory predictability
- Same scope as in ETS (ships above 5000 GT, intra-EU traffic + 50% international, EU ports)
- Flexibility mechanism via **banking and borrowing**: surpluses and (small) deficits can be carried over to the next year
- Voluntary and open pooling mechanism to reward/incentivise overachievers and encourage the rapid deployment of the most advanced options, in particular zero emission technologies
- Ships not meeting GHG limits would pay **deterrent financial penalty**. Revenues used for development of RLF in the maritime sector
- Responsible entity: the same in charge of duties and responsibilities imposed by the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM code)

Proposed approach (III)

- Mature technology for **onshore power supply (OPS) in ports** is already available
- Effects on **air quality** much more relevant in port areas

Article 5 sets the additional requirement to use **onshore power supply (OPS) or zero-emission technology** in ports as of 2030

- OPS requirement applies to **container and passenger vessels** (taking into account high energy demand and technical feasibility)
- Ships not meeting OPS obligation would pay **deterrent financial penalty**. Revenues used for development of RLF in the maritime sector
- Low administrative burden: monitoring is based on MRV and its electronic system (THETIS MRV)

 'report only once' approach.



How would FuelEU work?



OBLIGATIONS:

- Maximum limits on the GHG intensity of the energy used on board (yearly average) – Article 4
- For containers, ro-pax and passenger ships obligation to connect to OPS in ports or be zero-emissions at berth – Article 5

Companies monitor during the year the amount and type of energy in regulated journeys / port calls (using bunker delivery notes and OPS bills) - Articles 6, 7, 8 Data is scrutinised by verifiers (Articles 10, 11, 12, 13) and reported to COM through IT tool (Articles 14, 15, 16)

like REDII – Article 9 + Annexes

Lower GHG intensity using liquid biofuels, e-liquids, decarbonised gas

hydrogen-derived fuels (including methanol, and ammonia), electricity and wind. Certification relying as much as possible on existing schemes,

In case of compliance, companies are issued a valid certificate of compliance – Article 19

To provide flexibility and address issues of fuel availability the same ship can bank/borrow compliance surplus – Article 17

To reward early adopters and zero-emission ships, pooling of over-compliance is allowed among ships (private law agreements); no transfer of borrowed surplus - Article 18

Enforcement is done by checking for the certificate of compliance (Articles 22, 23); for non-compliance the company is subject to dissuasive proportionate penalties (Articles 20, 21)



In case of disagreement with the work of the verifiers, the companies may request a review (Articles 24, 25).



European Commission | Mobility and Transport

Thank you for your attention!

- Link to proposal and accompanying documents:
- <u>https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12312-CO2-emissions-from-shipping-encouraging-the-use-of-low-carbon-fuels_en</u>

