

Vertom



FuelEU Maritime
2025

1. What is FuelEU Maritime?

The European Union (EU) has adopted the FuelEU Maritime regulation (EU 2023/1805) as part of the Fit for 55 package. This initiative promotes the use of renewable and low-carbon fuels in maritime transport to reduce greenhouse gas (GHG) emissions (CO₂, CH₄, and N₂O) by promoting the use of renewable and low-carbon fuels across the full Well-to-Wake lifecycle. The regulation provides legal certainty for shipowners and fuel suppliers, and aims to increase demand for sustainable fuels. In 2020, the base year, the average GHG intensity of marine fuels was 91,16 gCO_{2e}/MJ.

Due to delays in the incorporation of FuelEU Maritime into the EEA Agreement, Norway and Iceland will be considered third-country ports under FuelEU from 1 January 2025 until further notice.

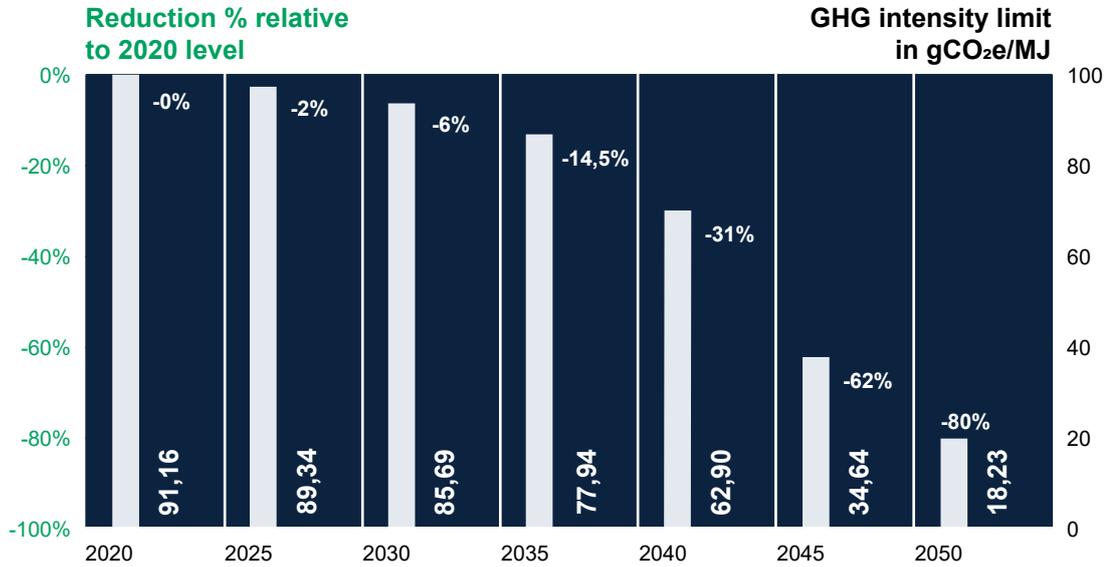
The regulation will be fully enforced from 1 January 2025.

Key points:

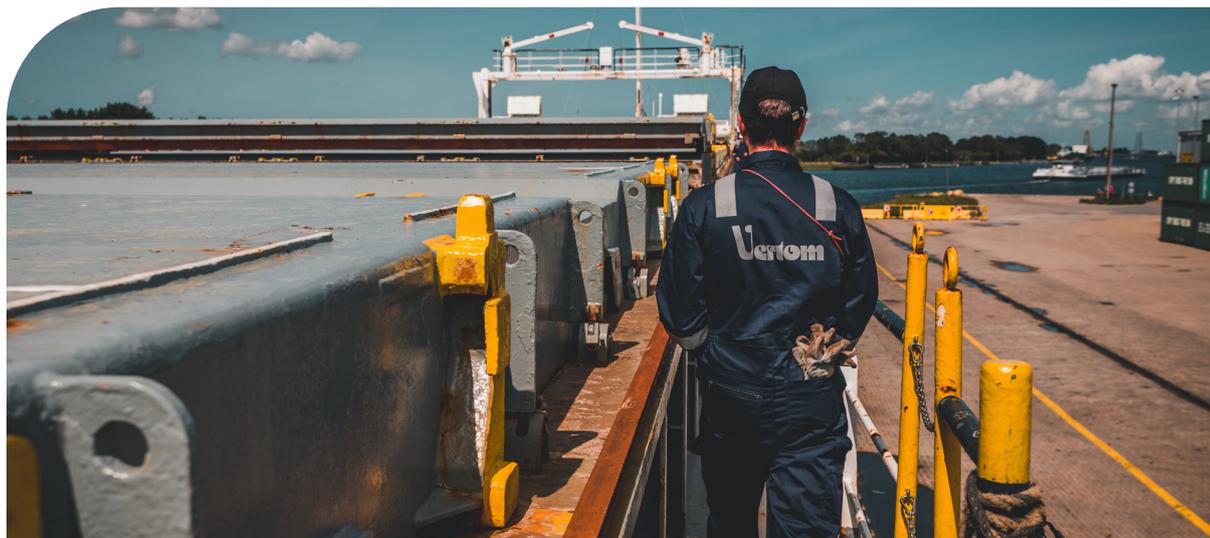
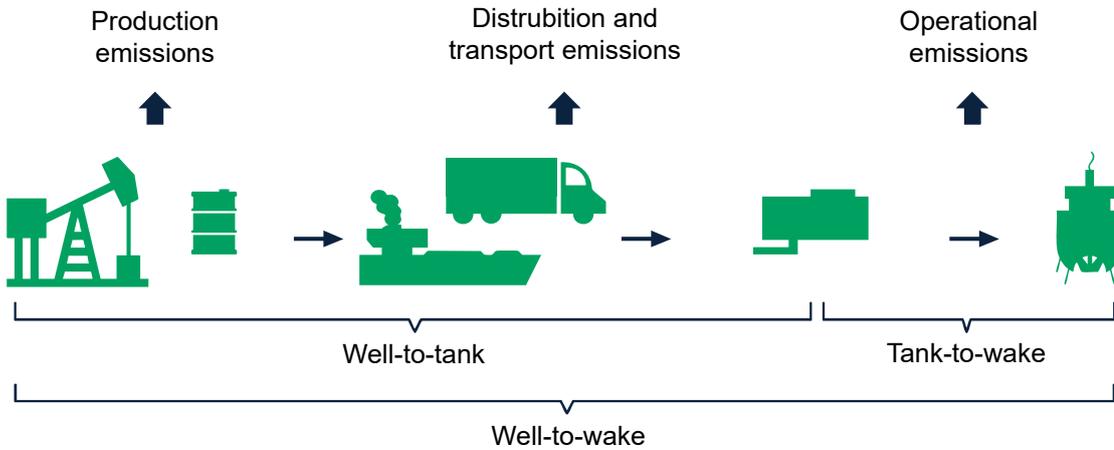
- The regulation currently applies to vessels > 5,000 GT. It is expected to extend to vessels > 400 GT from 2027.
- 100% of the energy used on intra-European voyages is covered by the rules.
- 50% of the energy used on voyages to and from the EU/EEA is included.
- The entity controlling the vessel, often the DoC holder, is responsible for compliance.
- The regulation applies to all greenhouse gases, including CO₂, CH₄, and N₂O, over the full Well-to-Wake lifecycle of fuels.
- From 31 August 2024, the responsible entity must submit a Fuel EU monitoring plan for each vessel, covering the GHG intensity of their energy consumption. This is different from the EU MRV Monitoring plan.
- From 1 January 2025, ships must gradually reduce their emissions according to the targets. The GHG intensity targets become stricter each year.
- By 30 June 2026, ships must have the FuelEU Document of Compliance on board. This is also the penalty payment deadline. Not complying with the well-to-wake GHG intensity target from 2025 will result in a penalty of EUR 2,400 per tonne of VLSFO-equivalent.
- The regulation is technology-neutral, allowing shipowners to choose their preferred fuel and energy conversion methods.
- Certain incentives apply, such as a 2x multiplier for RFNBOs and a wind reward factor, which reduces the calculated GHG intensity.

2. How FuelEU Maritime works

The regulation sets reduction targets for the GHG intensity of energy used. The targets are based on the average GHG intensity of marine fuels from the base year 2020 which is 91,16 gCO₂e/MJ. The targets become stricter in successive phases until 2050. These are the targets Vertom will follow:



3. Well-to-wake explained



4. FuelEU impact on Vertom and the sector

Starting in 2025, all Vertom vessels larger than 5,000 GT will be required to comply with the new emission standards. Three possible mechanisms can be implemented under the FuelEU Regulation, as explained below.

Pooling

FuelEU Maritime allows emissions reduction to be achieved at the fleet level rather than on an individual ship basis. Meaning that ships with lower emissions can compensate for other ships within the same fleet. Vertom has chosen to approach FuelEU Maritime by pooling its own vessels above 5,000 GT. By doing this, the greener vessels will result in a more fleet average sustainable greenhouse gas intensity. By doing this, the greener vessels will result in a lower average GHG intensity. Vertom is actively exploring alternatives to reduce its GHG intensity because of its internal goals and to be FuelEU-compliant.

Banking

Under the FuelEU Maritime regulation, vessels are allowed to carry over compliance surpluses to future years. This is permitted provided that the surplus is verified and registered before the issuance of the FuelEU Document of Compliance, which is due by 30 June of the following calendar year.

Borrowing

In cases where a vessel falls short of the required performance standards in a given year, it may offset the deficit by borrowing from expected surpluses in future years. However, this mechanism is not allowed for vessels that are part of a pool, due to the shared nature of compliance and accountability within such arrangements.

Use of biofuels and/or RFNBOs

Switching to biofuels does not result in a complete reduction of emissions due to 'well-to-wake' emissions (which occur during production, transportation, and storage). From 1 January 2025, the EU will monitor and incentivize the uptake of Renewable Fuels of Non-Biological Origin (RFNBOs), such as e-diesel, e-methanol, and e-LNG. Until 2033, energy from RFNBOs counts as 200% in the GHG intensity calculation. The fuel must be RED II compliant and verified. The multiplier only affects the intensity calculation, the actual energy is still counted at 1 in banking and pooling. If RFNBO usage remains below 1% by 2031, a mandatory 2% RFNBO requirement will be introduced from 2034. Alternatives like biofuels and RFNBOs currently carry a premium compared to marine gas oil. But besides that, the alternatives lower EU ETS costs because they have an emission factor of zero in EU ETS and do not require emission allowances.

Onshore power and flexibility compliance mechanisms

To reduce emissions during port stays, the use of onshore power becomes mandatory for passenger and container ships over 5,000 GT:

- From 1 January 2030, in Ten-T core network ports as outlined in Article 9 of the Alternative Fuels Infrastructure Regulation (AFIR).
- From 1 January 2034, in all EU ports equipped with onshore power infrastructure.

This applies to ships at berth for more than two hours. Vessels using certified zero-emission technologies while berthed are exempt. Non-compliance will lead to financial penalties.

5. Difference between EU ETS and FuelEU Maritime

Aspect	EU ETS (Maritime sector)	FuelEU Maritime
Sectors	Aviation, Industry, Maritime sector	Maritime sector
Threshold value GT	Starting from 2024: > 5.000 GT (starting from 2027: > 400 GT)	Starting from 2024: > 5.000 GT (in 2027 revision for possible extension > 400 GT vessels)
Type reduction	CO ₂ emissions	GHG-intensity (gCO ₂ e/MJ)
Base year	No base year, current exact emissions are taxed	Compared with base year 2020
Reduction goal	No specific reduction goal, but 100% coverage of maritime emissions starting from 2026	14,5% GHG-intensity reduction in 2035
Method	Tank-To-Wake (TTW)	Well-To-Wake (WTW)
Area of operation	50% of trips to and from the EU and 100% of intra-EU trips	50% of trips to and from the EU, and 100% of intra-EU trips
Financial impact	CO ₂ emissions are priced through emission rights EUAs (European Union Allowances)	Fines for exceeding GHG-intensity
Flexibility	No flexibility, emissions must be payed	Pooling, banking and borrowing possible

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6. Conclusion

Despite the financial impact, FuelEU Maritime presents a clear opportunity to accelerate decarbonization. By optimizing fleet efficiency and strategically integrating alternative energy sources, Vertom is committed to meeting regulatory targets while maintaining competitive and future-proof fleet operations.

For more information, please contact Vertom's Group Sustainability Advisor kim.onnink@vertom.nl.



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If you would like more information about our services or wish to speak with one of our specialists, please contact us. Whether you have a question or want to learn more about our solutions, we're here to help.

+31 (0)10 285 85 85

receptie@vertom.nl

Oever 7

3161 GR Rhoon

The Netherlands