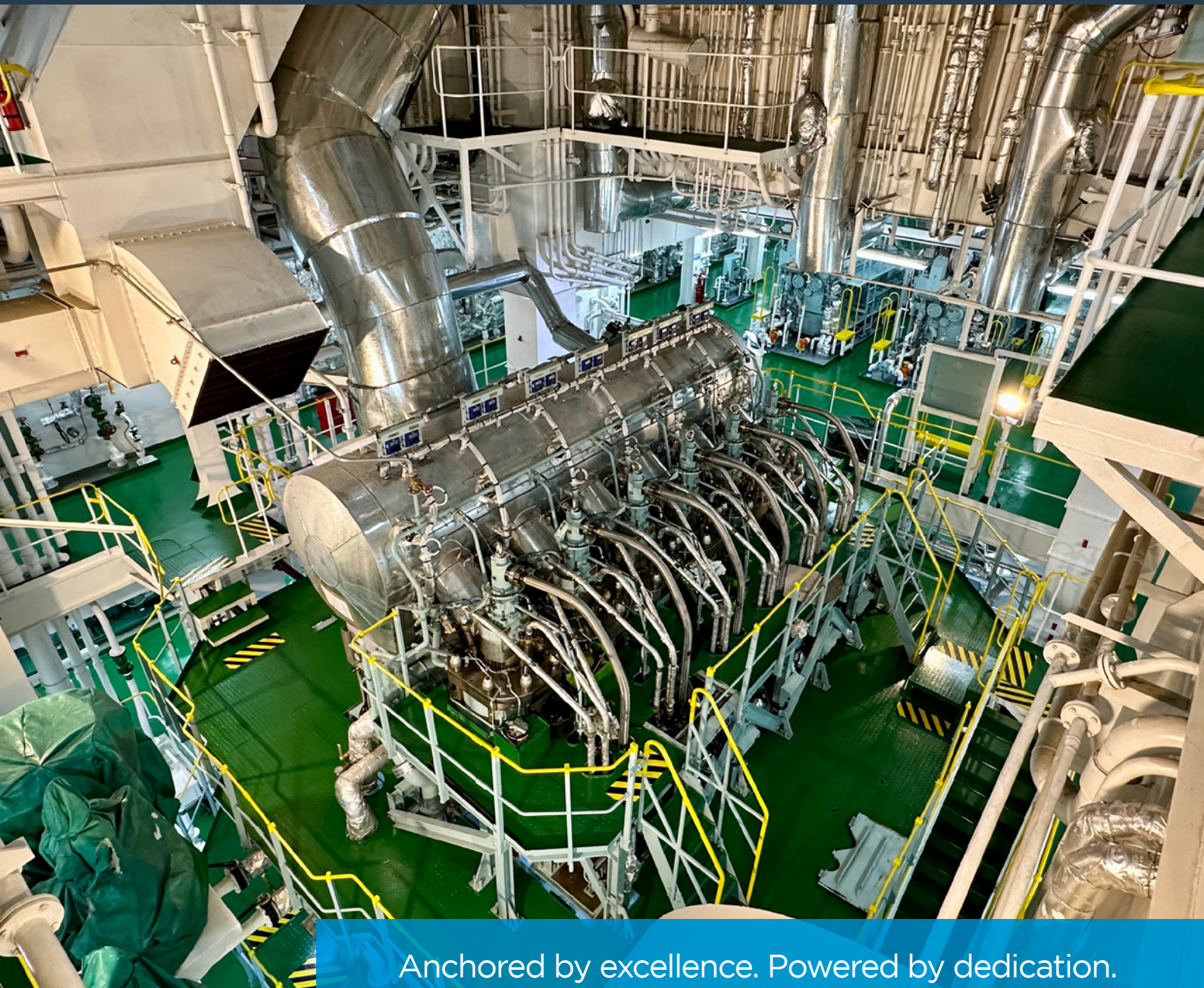


FEUM

FUEL EU MARITIME

Version 1.0 December 2024



Anchored by excellence. Powered by dedication.



Fuel EU Maritime

Definition

Just one year after the introduction of the EU ETS, the **Fuel EU Maritime will come into force on 1 January 2025**. The European Union is thus introducing a further instrument as part of **Fit for 55 Package** to reduce greenhouse gas (GHG) emissions caused by shipping.

The System

Fuel EU Maritime is based on two pillars:

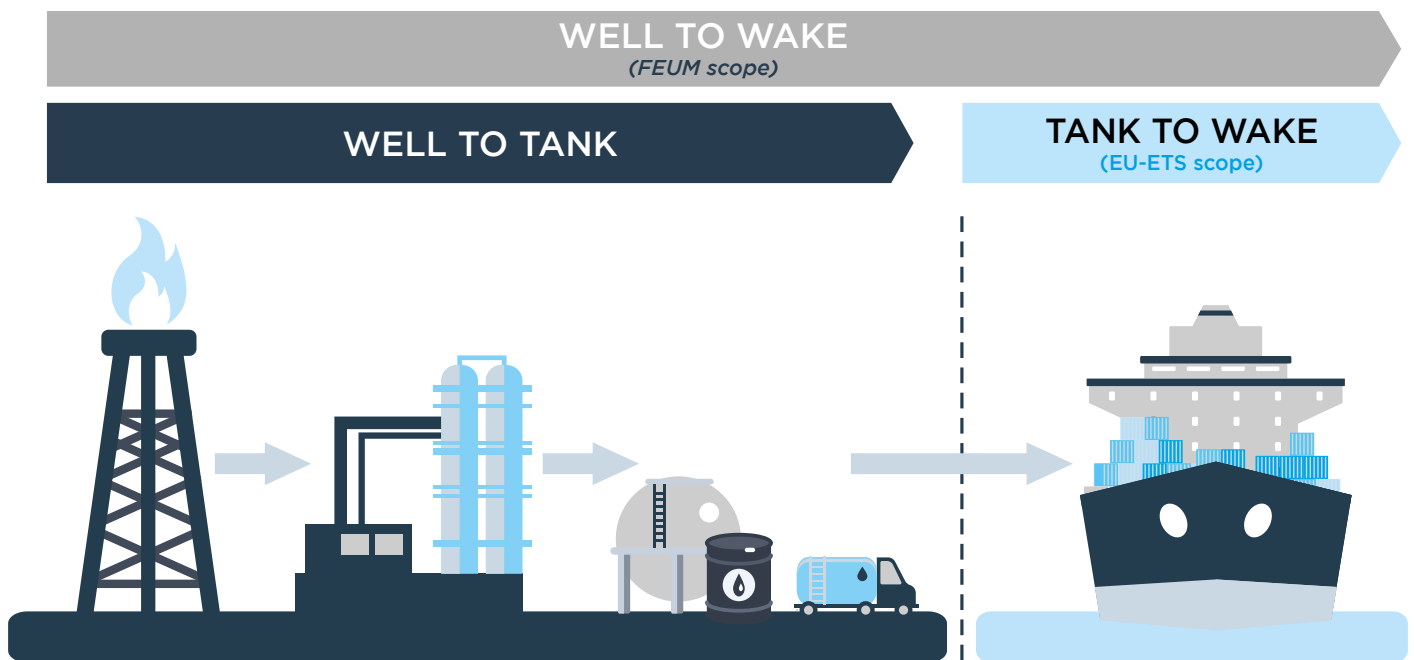
1. reducing the GHG intensity of the fuels used
2. supplying ships with shore power while in port

Reducing the GHG intensity

the Well-to-Wake principle

The GHG intensity of a fuel is the ratio of GHG emissions to the calorific value of the fuel (gCO₂e/MJ). While fuel consumption was previously at the centre of strategies to reduce GHG emissions, Fuel EU Maritime now focuses on GHG intensity of the fuel. To put it bluntly, it is not about how much fuel is consumed, but which fuel is consumed.

The **Well-to-Wake principle** takes into account not only the emissions generated on board, but also those caused by the exploration, production and transport of the fuel. This also explains why even using 100 % biofuel still leaves a GHG footprint.



*g = Gramm

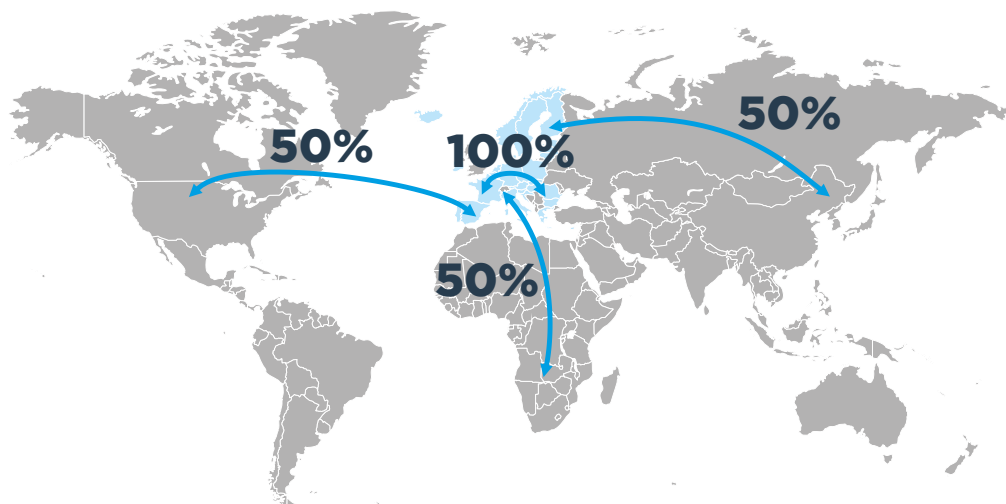
*MJ = Mega Joule

The requirement is to reduce the average annual GHG intensity of the fuel consumed. Starting from the reference value of 91.16 gCO₂e/MJ (the average intensity in 2020), the intensity is to be gradually reduced from 2% in 2025 to 80% in 2050.

2020	2025	2030	2035	2040	2045	2050
91,61	89,34	85,69	77,94	62,90	34,64	18,3
	-2%	-6%	-14,5%	-31%	-62%	-80%

Considered are only those GHG emissions that occur on voyages between two EU ports* (100%), within an EU port* (100%) or between an EU port and a non- EU port (50%).

* EU port in this context means all ports in EEA countries (EU & Norway & Iceland) as well as their overseas territories (e.g. Reunion, French Guyana, Aruba etc.)



These ambitious targets are mainly achieved through the use of carbon-neutral biofuels blended with conventional fuels. However, the use of fuel-saving technologies (e.g. wind assisted propulsion) is also recognised and is included in the GHG intensity calculation.

Reducing the GHG intensity

the Well-to-Wake principle

Shore Power

In the second stage from 2030, FuelEU Maritime requires shore-side power supply for ships that are berthed in an EU port for more than 2 hours. However, this requirement is limited to passenger and container vessels and is therefore not relevant for the BBC fleet.

Applicability

Fuel EU Maritime will enter into force on 01.01.2025 for passenger and cargo vessel of 5000 GT or more.

How does FuelEU Maritime affect the freight?

By operating the world's largest MPP fleet, the BBC APAC (any port any cargo) concept enables the flexible scheduling of our ships to transport our customers' cargo reliably, on time and at the right price. Once the agreement has been reached, the cargo owner does not have to worry about which ship is transporting the cargo via which route and what the associated costs are. Consequently, the FuelEU Maritime costs are also included in this concept, i.e. we will include those extra costs in the freight agreed with the customer. Therefore, subsequent billing, administratively complex emission accounting or separate surcharges do not apply.

For COA and time charters, we make individual agreements with our customers on a case-by-case basis regarding the additional costs for FEUM.

Examples

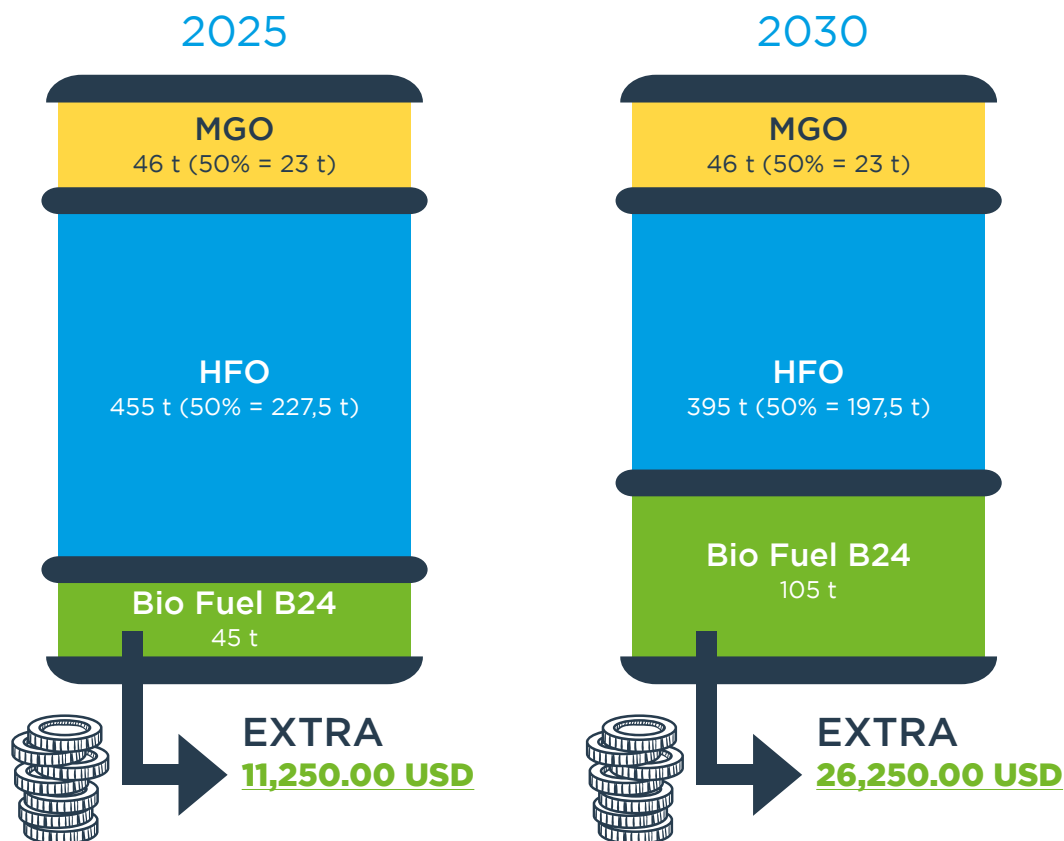
The additional costs result solely from the amount of biofuel required and the price difference to conventional fuel

Here we show two examples using our BBC Amber class for a voyage from the Far East to Europe (EU) and a voyage within Europe. Whilst we can easily calculate the quantity of biofuel required, the price, which varies depending on the place of purchase and the market situation, must be assumed. Our small calculation is based on a price difference of USD 250 per tonne.

BBC Amber consumes daily: 21 tonnes fuel @ 14 kts. In port 2,5 tonnes

Example 1

Voyage Singapore - Rotterdam / 8500 nm (via Suez) / 3 days portstay each

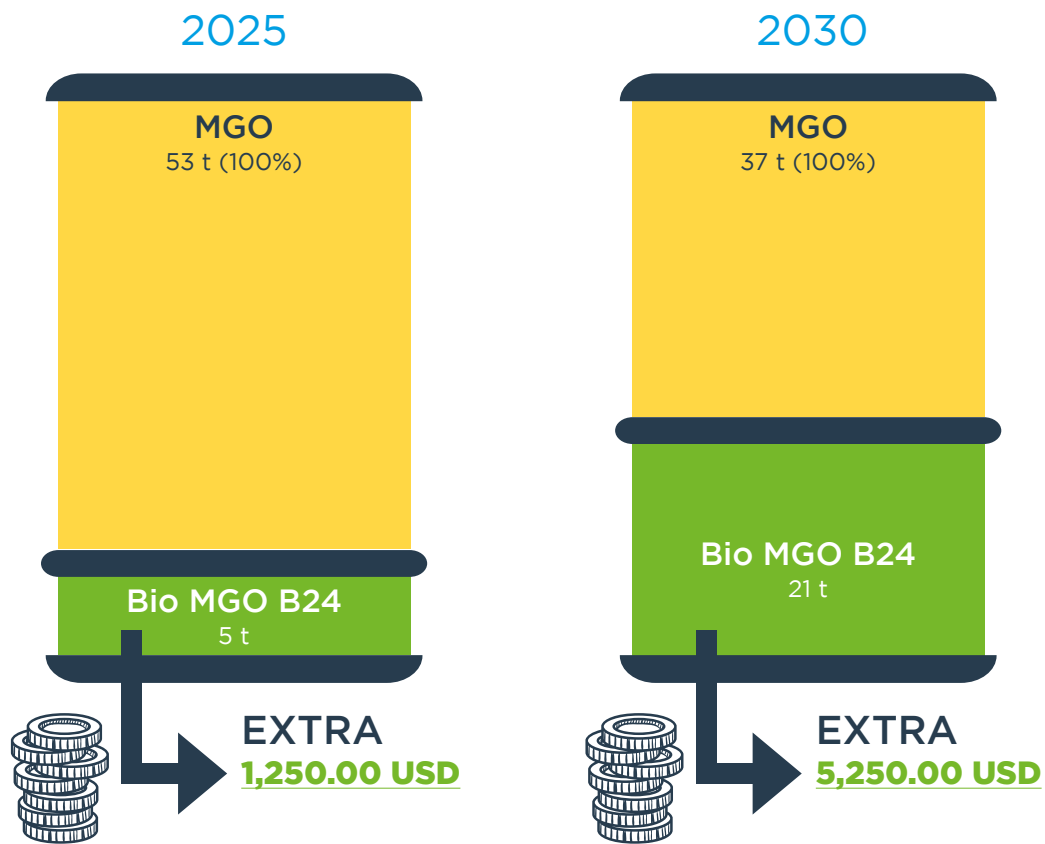


Examples

The additional costs result solely from the amount of biofuel required and the price difference to conventional fuel

Example 2

Voyage Rostock - Vaasa / 688 nm / 3 days portstay each



Also important to know

From 1 January 2025, the proportion of emissions to be accounted for under the EU ETS will rise from 40% to 70%.

From 1 May 2025, the Mediterranean will become an ECA (emission control area). Here, too, only fuel with a maximum sulphur content of 0.1 % m/m may be used, if no scrubber is fitted.

The use of biofuels, as required by FEUM, also reduces the EU-ETS relevant emissions to a certain extent.

