# Wirtschaftliche Biofuels als Strategie

2025 nachhaltig & innovativ in See stechen!

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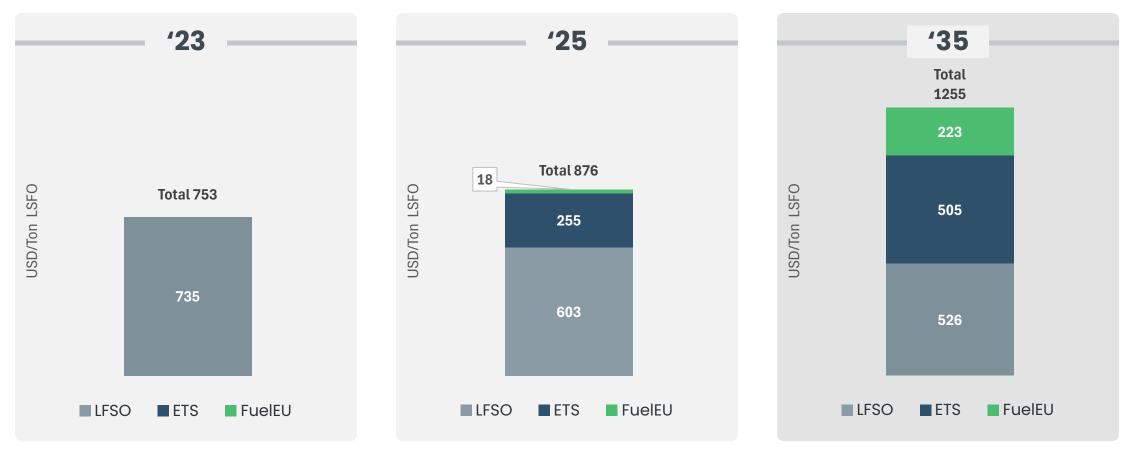
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## **Frontier Fuels**

## FUELEU MARITIME Renewable fuel mandate of 2025 in effect

Start date	1 <sup>st</sup> of January 2025.	By 2025 -2%	
Scope	For all vessels >5000 GT: 100% of the fuel consumed between EU ports and 50% when entering or departing the EU.	By 2030 -6% By 2035	
Mandate	Reduction in average carbon intensity <sup>1</sup> of fuels burned in EU waters	-14.5% By 2040 -31%	
Emission Factor	Considers <u>well-to-wake</u> (WtW) emissions <sup>2</sup> of each fuel	By 2045	
Penalty	€ 2,400 per ton of non-compliant fuel consumed (€58.50 per GJ)	-62% By 2050 -80%	

## **BREAKDOWN** Average Fuel Costs: significant impact of regulation



## сомракизом Biofuels among cheapest compliance options



Note: fossil fuel emission baseline of 91.16 gCO2eq/MJ. Source: Fuel Cost Calculator, MMMCZCS, 2024. | FRONTIER FUELS | 4

2025

**BIOFUELS** 

## **STRATEGY** Three Key Advantages of Biofuels



**Low Fuel Costs** 

compared to other renewable fuel options



#### Easy-to-integrate

into existing operations

- Very similar to conventional fossil fuels
- No retrofitting needed
- Widely available



## Effective for fleet compliance

short and medium-term

**One vessel** using a **30% biofuel** blend for FuelEU complies for:

- 15 vessels until 2030
- 5 vessels until 2035
- 2 vessels until 2040



#### TAKEAWAYS

## An **effective decarbonization** strategy will be crucial for future competitiveness

- Quantify expected obligation
- Explore compliance options: biofuel types, blend ratios, bunkering locations, vessel requirements, ...
- Quantify additional **advantages**: avoid ETS, CII ratings, emission-free cargo (Scope-3), ...

## **Biofuels** can be an **easy and cost-effective solution**, but vary in properties and price

- **Consult** with OEM, class, ...
- Assess availabilities and pricing with bunker suppliers
- Confirm with suppliers that technical and regulatory requirements are met
- Start with small-scale trial



## Frontier Fuels

#### Luc Siebinga

E: luc.siebinga@frontierfuels.eu L: linkedin.com/in/luc-siebinga/

#### Johann Maack

E: johann.maack@frontierfuels.eu L: linkedin.com/in/johannmaack/

#### **FF Frontier Fuels GmbH**

Kirschengasse 6 64807 Dieburg, Germany www.frontierfuels.eu

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