



Briefing paper:
**The 'Fit For 55 package':
opportunities for green
methanol**

By Aliénor, July 2023



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1) Introduction – ‘Fit for 55’ package

The European Union (EU)’s target of **reducing net greenhouse gas (GHG) emissions by at least 55% by 2030 compared to 1990 levels** gave its name to the package of policy measures proposed by the European Commission in the framework of its ‘Green Deal’: the **‘Fit for 55’ package**. It consists in a number of new and updated legislations **that aim at accelerating the decarbonisation** of the EU’s economic activities, of which several concern the industry and transport sectors. The package was presented to the EU Member States and the European Parliament by the European Commission **on 14 July 2021** and most of the bills are **now on the last stretch towards their final adoption**.

IN BRIEF : Several of the below-mentioned texts will create more demand for alternative fuels (such as green methanol) through price signals and mandatory targets. The Regulation on alternative fuels infrastructure aims at making sure that these fuels can be delivered and taken up by the transport sector.

2) Increasing the demand for alternative fuels to decarbonise the transport sector

Under the **‘Fit for 55’ package**, several legislations **will drive the demand** for more sustainable fuels through **targets and carbon pricing** mechanisms. The below-mentioned legislative acts have the potential to **enhance the production and the uptake** of green methanol (among other fuels). With applications in the **heavy-duty road and maritime transport as well as in aviation**, green methanol will play a crucial role in the decarbonisation of these sectors and of the EU economy as a whole.

2.1. INCREASING DEMAND THROUGH MANDATORY TARGETS

2.1.1. Revision of the Renewable Energy Directive (RED): upgraded targets for renewable energy use in transport

The revision of RED imposes **new targets for the uptake of renewable energy across various sectors**, setting a new goal of a minimum 42.5% share of renewable energy sources (RES) in final energy consumption by 2030. Each EU member state will have appropriate measures to contribute to this common EU target.

This new Directive also sets a **specific target for the transport sector**: member states can choose between a GHG-intensity reduction of 14,5% by 2030 **or** a binding share of at least 29% of renewables within the final consumption of energy by their transport sector by 2030. Moreover, a binding combined sub-target was set, of 5.5% for advanced biofuels (generally derived from non-food-based feedstocks) and renewable fuels of non-biological origin (RFNBOs) in the share of renewable energies supplied to the transport sector. Within this target, there is a minimum requirement of 1%



of renewable fuels of non-biological origin (RFNBOs) in the share of renewable energies to be supplied to the transport sector by 2030. **In sum, the revision of RED will further promote the demand for renewable energy sources, including green methanol.**

2.1.2. FuelEU Maritime: a mandatory reduction of vessels’ GHG emissions

This regulation will **oblige commercial vessels above 5 000 gross tonnes calling at European ports to reduce significantly their GHG emissions.** More precisely, it requires ships to cut their emissions by 2% as of 2025 and by 80% as of 2050 compared to 2020 to help the EU become climate neutral. **Additional incentives are provided for the use of renewable fuels from non-biological origin (RFNBOs) such as methanol.** All GHG emissions that a given fuel generates have to be taken into account (full lifecycle), not just those used by the ship.

To reduce their vessels emissions, shipping companies will look for fuels that emit less GHG on a life-cycle basis and that are more efficient, such as green methanol.

2.1.3. ReFuelEU Aviation: mandatory targets for sustainable aviation fuels in EU airports

The ReFuelEU Aviation regulation **establishes the minimum share of sustainable aviation fuels to be made available at EU airports,** to cut emissions and ensure the EU becomes climate neutral by 2050. More specifically, starting from 2025, at least 2% of aviation fuels will be green, progressively increasing up to 70% in 2050 compared to 2020. Synthetic fuels are listed among the fuels counting as green. Moreover, airlines departing from EU airports will be obliged to refuel their aircrafts with only the necessary fuel for the flight, with the aim of avoiding emissions related to extra weight.

This legislation will drive the demand for more sustainable fuels for the aviation sector.

2.2. INCREASING DEMAND THROUGH PRICE SIGNAL BASED ON CARBON CONTENT

2.2.1. Extension and reinforcement of the EU’s carbon market

The EU’s Emission Trading System (ETS) is a ‘cap and trade’ scheme intended to lower GHG emissions of the EU’s manufacturing industry, energy and transport sector. The system covers around 40% of total EU emissions and has reduced GHG emissions by 41% since its introduction (2005).

The current revision aims for more ambitious emissions reduction goals through five steps:

- A faster reduction of the cap to incentivize sustainable production.
- **An extension of the ETS to maritime transport** - specifically from large ships above 5 000



gross tonnage. The requirement to surrender allowances would be gradually phased-in during 2024-2026.

- **The creation of a separate ETS system for buildings and road transport, starting from 2027.**
- A gradual **phase-out of free allowances for certain sectors, such as aviation.** Under this system, airlines operating in Europe are required to monitor, report and verify their emissions, surrendering allowances against those emissions. Free emission allowances will be phased out for the aviation sector as follows: 25% in 2024, 50% in 2025 and 100% from 2026. For extra-European flights to and from third countries, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) system will apply.
- Increased funding for decarbonisation through the Social Climate Fund.

This reform will lead to further GHG emissions reductions through financial and legal coercion upon EU transport operators, which will look for greener fuels such as green methanol.

2.2.2. Revision of the energy taxation directive (ETD): an attempt to align fuel taxation with the EU’s climate policy objectives

The revision of ETD aims at aligning energy product taxation with the EU’s climate policies. Therefore, taxation will be based on the content and environmental impact of energy products rather than volume. Secondly, products will be categorized in a simplified manner, ensuring that environmentally-harmful fuels face higher taxes. Third, partial exemptions for specific products will be phased out. This to prevent fossil fuels from being taxed below minimum rates. Lastly, the revision attempts to eliminate full exemptions of taxation for fossil fuels used in intra-EU air transport and maritime transport.

These provisions could guide transport operators towards more sustainable energy products that will be less taxed than fossil fuels. However, taxation legislation at the EU level requires an unanimous vote amongst the EU member states, the last attempt to revise this directive failed. The outcome thus remains uncertain.

3) Ensuring the availability of alternative fuels in transport hubs

In addition to legislative measures which will drive the demand for cleaner fuels, the European Commission also addresses the alternative fuels infrastructure to make sure that these fuels can be accessible by transport operators. This, to further drive the whole value-chain of the EU industry towards the already agreed 2030 and 2050 goals.

3.1 THE ALTERNATIVE FUELS INFRASTRUCTURE REGULATION (AFIR): A CONCRETE STEP TOWARDS CHANGING FUEL HABITS



As industries and transport operators will have to meet a number of decarbonisation targets, alternative fuels must be available wherever they are needed to ensure smooth operations. The corresponding infrastructure for the recharging and refuelling of zero- and low-emission vehicles and ships must keep pace.

The AFIR establishes EU-wide binding targets for publicly accessible electric recharging and alternative fuels refuelling infrastructure for all transport modes. The focus is mostly on electric recharging and hydrogen refuelling infrastructure.

While methanol requires limited adaption to the existing infrastructure, the regulation lays the ground for an important work regarding **technical specifications for methanol bunkering for maritime transport and inland navigation and for the interoperability of refuelling points.**

4) Current status of the discussed proposals

Revision of the Renewable Energy Directive (RED)

Pending vote in the September Plenary session of the European Parliament.
Publication in the Official Journal of the EU expected at the end of this year.

FuelEU Maritime

Approved by the EU Institutions in July 2023.
Pending publication – in short time – in the Official Journal of the EU.

ReFuelEU Aviation

Pending vote in the Plenary session of the European Parliament.
Publication in the Official Journal of the EU expected at the end of this year.

EU Emission Trading System (ETS) revision

Approved by the EU Institutions in April 2023.
The final act was published in the Official Journal of the EU on 16 May 2023.

5) READ MORE/SOURCES

RENEWABLE ENERGY DIRECTIVE (RED)

Council of the EU / [Infographic](#)
European Parliament / [Briefing](#)

FUELEU MARITIME

Council of the EU / [Infographic](#)
European Parliament / [Legislative Train Schedule](#)





REFUELEU AVIATION

Council of the EU / [Infographic](#)
European Parliament / [Briefing](#)

EU EMISSION TRADING SYSTEM

Council of the EU / [Infographic](#)
European Parliament / [Legislative Train Schedule](#)

ENERGY TAXATION DIRECTIVE

Council of the EU / [Infographic](#)
European Parliament / [Legislative Train Schedule](#)

ALTERNATIVE FUELS INFRASTRUCTURE

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