

Cutting emissions from planes and ships: EU actions explained



Emissions from planes and ships are increasing, while the EU wants to reach carbon neutrality by 2050. Read about EU measures to reduce their emissions.

Despite only accounting for about 8% of the EU's total emissions, [emissions from aviation and shipping are increasing](#). In an effort to cut the EU's total emissions 55% by 2030 and to reach net zero by 2050, the EU has ambitious plans to counteract climate change. The legislative package called Fit for 55 aims to deliver [the EU's Green Deal's objectives](#), includes proposals to reduce emissions from both sectors.

Read more on [EU targets and measures to cut emissions](#)

Improving emissions trading for aviation

Emissions Trading System

The EU has taken steps to [reduce aviation emissions](#) through its [Emissions Trading System](#) (ETS). It applies so-called cap and trade rules for the aviation sector where airlines are required to surrender emissions allowances to cover their emissions. However, to avoid putting EU companies at a disadvantage, the Emissions Trading System currently only applies to flights within the European Economic Area - which covers all EU countries as well as Iceland, Lichtenstein and Norway - and most of the allowances are distributed to the airlines for free.

On 8 June 2022, [Parliament voted in favour of a revision of the Emissions Trading System for aviation](#).

Parliament wants to phase out free allocations for aviation by 2026 and promote the use of sustainable aviation fuels such as [hydrogen from renewable energy sources](#), other renewable fuels from non-biological origins (such as green ammonia) and advanced biofuels. Revenues generated from the auctioning of five million allowances for aviation will be used to support innovation and new technologies through the [Innovation Fund](#).

In April 2023, Parliament [adopted the revised proposal](#) that had been [agreed with EU countries in December 2022](#).

Sustainable fuels for planes

In addition to approving changes to the Emissions Trading System, Parliament approved in September 2023 [a deal reached with the Council on the Refuel EU aviation initiative](#). This is part of the climate package aimed at making fuels used in EU planes greener.

Fuel suppliers will have to ensure EU airports get a minimum share of sustainable aviation fuels: 2% as of 2025; 34% by 2040 and 70% by 2050. Renewable hydrogen will be part of the sustainable fuel mix and EU airports will need to help aircraft operators get access to sustainable aviation fuels, including with infrastructure for hydrogen refuelling and electric recharging.

Used cooking oil, synthetic fuel or even hydrogen should gradually become the norm as aviation fuel.

In addition, MEPs ensured an EU labelling system on the environmental performance of commercial flights will be introduced as of 2025, indicating a flight's expected carbon footprint per passenger and its expected CO2 efficiency per kilometre.

Finding solutions for flights outside Europe

To cover flights departing or arriving outside the European Economic Area (EEA), the EU is working with the [International Civil Aviation Organization](#) to implement a global market-based measure known as Corsia, which stands for [Carbon Offsetting and Reduction Scheme for International Aviation](#). This enables airlines to offset their emissions by investing in green projects, for example by planting trees.

Corsia is in a voluntary pilot phase until the end of 2023 and will go through its first phase as of 2024. It is complementary to the Emissions Trading system to avoid double-charging airlines for their carbon emissions. If sufficient progress is not made by July 2026, the Commission would be required to propose including emissions of flights outside Europe in the scope of the EU's Emissions Trading System. Flights to non-EU countries that are not applying Corsia will fall under its scope as of 2027.

Reducing emissions from maritime transport

Ships in the Emissions Trading System

On 16 September 2020, MEPs voted in favour of [including maritime transport in the EU's Emissions Trading System](#) and of setting binding requirements for shipping companies to reduce their CO2 emissions by at least 40% by 2030.

According to MEPs, the original Commission proposal to revise EU rules on the monitoring of CO2 emissions and fuel consumption from large ships in order to bring it in line with global rules was not ambitious enough given the urgent need to decarbonise all sectors of the economy.

On 27 April 2021, the [Parliament reiterated the need for a substantial cut in emissions by the shipping industry](#) and its inclusion in the EU's Emissions Trading System. It also underlined the importance of assessing the impact on competitiveness, jobs and raised the potential risk of [carbon leakage](#).

Parliament wants the following measures to help the maritime sector become cleaner and more efficient in the transition to a climate-neutral Europe:

- The phasing out of heavy fuel oils with compensation via tax exemptions on alternative fuels
- The decarbonisation, digitalisation and automatisisation of European ports
- Regulated access to EU ports for the most polluting ships
- Technical improvements such as vessel speed optimisation, innovation in hydrodynamics new propulsion systems

As part of the Fit for 55 legislative package, the Commission proposed in July 2021 an update of the Emissions Trading System, including an extension to cover maritime transport, as requested by the Parliament. On 22 June 2022, [Parliament backed the proposal](#). In December 2022, [Parliament and the Council reached a provisional agreement on its inclusion in the Emissions Trading System](#), which was approved by Parliament in April 2023.

Sustainable fuels for ships

Parliament adopted its position on an update of rules regarding the use of renewable and low-carbon fuels in maritime transport in October 2022. In March 2023, the Council and the European Parliament reached a [provisional agreement on the FuelEU maritime proposal](#).

The amount of greenhouse gas emissions released from the energy used by ships needs to be cut by 2% as of 2025, 14.5% as of 2035 and 80% as of 2050 compared to 2020 levels. The cuts should apply to ships with a gross tonnage of more than 5,000, which account for 90% of CO₂ emissions, to all energy used on board in or between EU ports, and to 50% of energy used for travelling where the departure or arrival port is outside of the EU or in its outermost regions.

The deal also gives more credits - as an incentive - in the form of offsetting emissions to ship owners who use renewable fuels of non-biological origin from 2025 to 2034.

More on reducing emissions from transport

- [How to increase the use of alternative fuels for cars](#)
- [CO₂ emissions from cars: facts and figures \(infographics\)](#)
- [Reducing car emissions: new CO₂ targets for cars and vans explained](#)
- [EU ban on the sale of new petrol and diesel cars from 2035](#)

More information on sustainable aviation fuels and emissions

[Briefing: sustainable aviation fuels and the fit for 55 package](#)

[Briefing: revision of the EU's Emissions Trading System for aviation](#)

[Video](#)

More information on sustainable maritime fuels

[Briefing](#)

[Video](#)