Revised EU emissions trading system

The EU emissions trading system (ETS) has been successful in reducing greenhouse gas (GHG) emissions from industry, electricity generation and aviation. The revision of the EU ETS under the ‘fit for 55’ package raises its ambition, extends emissions trading to maritime transport, buildings and road transport, and gradually phases out free emissions allowances, while phasing in a carbon price for certain imports.

Background
The rules for phase 4 of the EU ETS have been revised to raise the ambition in line with the binding EU 2030 target of reducing net GHG emissions by 55% below 1990 levels, as set out in the EU Climate Law. Discussions during the legislative process focused on the timing of establishing a new ETS covering fuels for road transport and buildings (ETS II), in a context of inflation and high energy prices. The ETS II will start in 2027, a year later than proposed by the European Commission. If energy prices are exceptionally high, its start will be postponed until 2028. A price stabilisation mechanism kicks in if ETS II prices exceed €45.

Objectives and targets
The revised EU ETS Directive, which entered into force on 5 June 2023, raises overall emissions reductions by 2030 in the sectors covered by the EU ETS to 62% below 2005 levels. GHG emissions from maritime transport will be included in the ETS from 2024, with a 2-year phase-in period. The Commission will assess a possible extension to municipal waste incineration from 2028. With the extension of the ETS to maritime transport and fuels for road transport and buildings, most of the EU’s GHG emissions will be subject to emissions trading. Part of the ETS revenues go to an enlarged Innovation Fund that supports the demonstration and roll-out of innovative low-carbon technologies, and an enlarged Modernisation Fund that helps to modernise energy systems and improve energy efficiency in 10 lower-income Member States. Member States must now spend all of their ETS revenues on climate and energy-related purposes.

While the ETS I concerns commercial operations (power plants, industrial installations, airlines, shipping companies) that must surrender allowances for their emissions, the ETS II impacts households and citizens directly through the fuel price. A new Social Climate Fund will help alleviate the social impacts of the ETS II. The actual trading and surrender of ETS II allowances will be the responsibility of fuel distributors, building on the existing system for excise duties. To balance the supply and demand of ETS allowances and limit price fluctuations, both ETS I and ETS II operate a market stability reserve.

Free allowances for trade- and energy-intensive industries will be gradually phased out, to ensure the decarbonisation of these industries. To continue protecting these European industries from unfair international competition, a new carbon border adjustment mechanism will put a carbon price on the imports of certain products, including steel and aluminium. The phase-out of free allowances is synchronised with the phase-in of the carbon border adjustment mechanism and will be completed in 2034. Free allowances for the aviation sector will be phased out, reaching full auctioning in 2026.
Implementation on the ground
The EU ETS is a market-driven instrument that aims to reduce GHG emissions by putting a limit (cap) on the total allowable amount of emissions, and using a carbon market to establish the price of emissions through auctioning and trading of emissions allowances. This 'cap and trade' system promotes investments to reduce carbon emissions if these investments are cheaper than paying the price of emissions allowances. In this way, it encourages decarbonisation in the most cost-effective manner. The carbon price in the EU ETS has encouraged both the transition from coal towards less carbon-intensive energy sources and investments in industrial energy efficiency and low-carbon processes.

However, in addition to market mechanisms delivering climate benefits, there is a role for Member States, regional and local authorities in helping industry to deal with ever-rising carbon prices. This concerns regions that have been heavily dependent on coal and energy-intensive industries and/or want to benefit from the transition towards low-carbon energy sources such as green hydrogen. Municipal authorities can play a leading role in helping citizens cope with the carbon price for heating fuels under the ETS II by supporting energy-efficient renovation of buildings, solar heating and electricity generation, and low-carbon heating solutions such as heat pumps and district heating. The following examples illustrate local and regional good practices to help avoid economic losses from a carbon price expected to rise above €100 per tonne of CO₂ equivalent by 2030, driven by an amount of emissions allowances that is reduced year after year.

Just transition in Eastern Wielkopolska, Poland
The Eastern Wielkopolska region has long been dependent on coal mining and coal-fired electricity generation, and this has also been the largest source of employment in the region. The region’s Just Transition Territorial Plan envisions phasing out coal mining by 2030 and becoming carbon neutral by 2040. The Konin sub-region will receive €415 million from the EU Just Transition Fund to reskill coal workers and transition towards renewable energy, including green hydrogen. As a frontrunner, Eastern Wielkopolska is the only Polish region in the Powering Past Coal Alliance, a network of organisations and public authorities committed to accelerating the transition from coal to clean energy.

North Holland hydrogen valley
The North Holland region has been awarded the European Hydrogen Valley status and been recognised for best practices regarding financing and public-private partnerships. With several hydrogen production initiatives, a world-class hydrogen research facility, three seaports, a connection to the national hydrogen network, and an ambition to use hydrogen in steel production, manufacturing, synthetic fuels, mobility and agriculture, the region is well positioned for an accelerated transition to green hydrogen. As a hydrogen valley, the region stands to benefit from the transition towards green hydrogen, which will become increasingly competitive in the face of ever-higher EU ETS prices.

Geothermal district heating in Aarhus, Denmark
The city of Aarhus decided to develop the largest geothermal district-heating system in the EU. It is expected to provide heat for some 36 000 households by 2029 and reduce annual CO₂ emissions by up to 165 000 tonnes, thereby lowering the need for ETS allowances. Drilling will start in autumn 2023, and the first of seven geothermal plants is expected to start operation in 2025.

South Tyrol, an Alpine model region for clean mobility
The 8-year LIFEalps project aims to transform the Italian South Tyrol region into an Alpine model region for zero-emission mobility, helping to avoid financial burdens from the ETS II for road transport fuels, and contributing to the South Tyrol Climate Plan. The project focuses on infrastructure for electric and hydrogen vehicles, pilot fleets and zero-emission transport services. It involves a municipal utility, regional highway and transport operators, energy suppliers and a research institute.

For more insights on the legislative process leading up to the adoption of the new legislation, see our ‘EU Legislation in progress’ briefing or consult the Legislative Train Schedule.