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**Climate Action** 

## EU Emissions Trading System (EU ETS)

The EU ETS is a cornerstone of the EU's policy to combat climate change and its key tool for reducing greenhouse gas emissions cost-effectively. It is the world's first major carbon market and remains the biggest one.

The EU Emissions Trading System:

- operates in all EU countries plus Iceland, Liechtenstein and Norway (EEA-EFTA states),
- limits emissions from around 10,000 installations in the power sector and manufacturing industry, as well as airlines operating between these countries,
- covers around 40% of the EU's greenhouse gas emissions.

On 14 July 2021, the European Commission adopted a <u>series of legislative proposals</u> [https://ec.europa.eu/clima/policies/eu-climateaction/delivering\_en] setting out how it intends to achieve <u>climate neutrality in the EU by 2050</u> An official EU webs [https://ec.europa.eu/clima/policies/strategies/2050 en],

including the intermediate <u>target of an at least 55%</u> <u>net reduction in greenhouse gas emissions by</u> <u>2030 [https://ec.europa.eu/clima/policies/eu-climate-</u> <u>action/2030\_ctp\_en]</u>. The package proposes to revise several pieces of EU climate legislation, including the EU ETS, Effort Sharing Regulation, transport and land use legislation, setting out in real terms the ways in which the Commission intends to reach EU climate targets under the European Green Deal.

#### A 'cap and trade' system

The EU ETS works on the 'cap and trade' principle. A <u>cap [https://ec.europa.eu/clima/policies/ets/cap\_en]</u> is set on the total amount of certain greenhouse gases that can be emitted by the installations covered by the system. The cap is reduced over time so that total emissions fall.

Within the cap, installations <u>buy</u> [<u>https://ec.europa.eu/clima/policies/ets/auctioning\_en]</u>or receive

[https://ec.europa.eu/clima/policies/ets/allowances\_en] emissions allowances, which they can trade with one another as needed. The limit on the total number of allowances available ensures that they have a value.

After each year, an installation must surrender enough allowances to cover fully its emissions, otherwise heavy fines are imposed. If an installation An official EU websiteduces its emissions, it can keep the spare allow-

ances to cover its future needs or else sell them to another installation that is short of allowances.

Trading brings flexibility that ensures emissions are cut where it costs least to do so. A robust carbon price also promotes investment in innovative, lowcarbon technologies.

#### **Developing the carbon market**

Set up in 2005, the EU ETS is the world's first international emissions trading system.

The EU ETS is also inspiring the development of <u>emissions trading in other countries</u> [<u>https://ec.europa.eu/clima/policies/ets/markets\_en]</u> and regions. The EU aims to link the EU ETS with other compatible systems.

#### Sectors and gases covered

The EU ETS covers the following sectors and gases, focusing on emissions that can be measured, reported and verified with a high level of accuracy:

- carbon dioxide (CO<sub>2</sub>) from
  - electricity and heat generation,
  - energy-intensive industry sectors including oil refineries, steel works, and production of iron, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids and bulk organic chemicals,

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- commercial aviation within the European Economic Area;
- nitrous oxide (N<sub>2</sub>O) from production of nitric, adipic and glyoxylic acids and glyoxal;
- perfluorocarbons (PFCs) from production of aluminium.

Participation in the EU ETS is mandatory for companies in these sectors, but

- in some sectors, only installations above a certain size are included,
- certain small installations can be excluded if governments put in place fiscal or other measures that will cut their emissions by an equivalent amount,
- in the <u>aviation sector</u>
  [https://ec.europa.eu/clima/policies/transport/aviation\_en]
   , until 31 December 2023 the EU ETS will apply
  only to flights between airports located in the
  European Economic Area.

#### The EU ETS framework

The legislative framework of the European carbon market is spelled out in the <u>ETS Directive</u> [https://eur-lex.europa.eu/legal-content/EN/TXT/? uri=celex:02003L0087-20180408]\_.

The system operates in trading phases. Now into its fourth trading phase (2021-2030), the ETS framework has undergone several revisions to maintain the system's alignment with the overarching EU climate policy objectives. An official EU webs It he legislative framework of the EU ETS for phase

4 was revised in 2018 to ensure emissions reductions in support of the EU's <u>2030 emissions reduc-</u> <u>tion target</u> [<u>https://ec.europa.eu/clima/policies/strategies/2030\_en]</u> (of -40% relative to 1990 level) and as part of the EU's contribution to the <u>Paris Agreement</u> [<u>https://ec.europa.eu/clima/policies/international/negotiations/paris\_en]</u>

This revision

[https:/ec.europa.eu/clima/policies/ets/revision\_en]\_focused on:

 Strengthening the EU ETS as an investment driver by increasing the pace of annual cap reduction to 2.2% as of 2021, and reinforcing the <u>Market Stability Reserve</u>

[https://ec.europa.eu/clima/policies/ets/reform\_en] (the mechanism established by the EU to reduce the surplus of emission allowances in the carbon market and to improve the EU ETS's resilience to future shocks);

- Continuing the <u>free allocation</u> [<u>https://ec.europa.eu/clima/policies/ets/allowances\_en]</u> of allowances as a safeguard for the international competitiveness of industrial sectors at risk of <u>carbon leakage</u> [<u>https://ec.europa.eu/clima/policies/ets/allowances/leakage\_en]</u> , while ensuring that the rules for determining free allocation are focused and reflect technological progress;
- Helping industry and the power sector meet the innovation and investment challenges of the low-carbon transition via dedicated funding

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[https://ec.europa.eu/clima/policies/innovationfund\_en] and Modernisation Fund [https://ec.europa.eu/clima/policies/budget/modernisationfund\_en]\_.

The 2018 revision built on the reform of the ETS framework for phase 3 (2013-2020), which had changed the system considerably compared to the previous phases [https://ec.europa.eu/clima/policies/ets/pre2013\_en] (2005-2007 and 2008-2012).

# Delivering emissions reductions

The EU ETS has proven to be an effective tool in driving emissions reductions cost-effectively. Installations covered by the ETS reduced emissions by about 35% between 2005 and 2019.

The introduction of the <u>Market Stability Reserve</u> [<u>https://ec.europa.eu/clima/policies/ets/reform\_en]</u> in 2019 has resulted in higher and more robust carbon prices, which helped to ensure a year on year total emissions reduction of 9% in 2019, with a 14.9% reduction in electricity and heat production and a 1.9% reduction in industry.

Under the European Green Deal [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\_en], the Commission presented in September 2020 an impact-assessed plan [https://ec.europa.eu/clima/policies/eu-climateaction/2030\_ctp\_en] to increase the EU's net greenAn official EU web shouse gas emissions reductions target to at least

55% by 2030. By July 2021, the Commission will present legislative proposals to implement the new target, including revising and possibly expanding the scope of the EU ETS.

#### **Developing the carbon market**

Set up in 2005, the EU ETS is the world's first international emissions trading system. It has since continued to inspire the development of <u>emissions</u> <u>trading in other countries and regions</u> [https://ec.europa.eu/clima/policies/ets/markets\_en].

The EU supports these efforts through knowledge exchange and capacity building activities. The EU also considers opportunities to link the EU ETS with other compatible systems.

In 2017, the EU and Switzerland signed an agreement to <u>link</u>

[https://ec.europa.eu/clima/policies/ets/markets\_en] their emissions trading systems. The agreement entered into force on 1 January 2020, and the link became operational in September that year.

### About the EU ETS

For more information on the EU ETS, see the <u>EU</u> <u>ETS Handbook</u>

[https://ec.europa.eu/clima/sites/clima/files/docs/ets\_handbook\_en.pdf]

(••• [javascript:void(0)]]. Please note that the information contained in the handbook reflects the status quo at the time of its publication in 2015.

An official EU websfiter more recent information on the EU ETS, see

#### the Carbon Market Reports

[https://ec.europa.eu/clima/policies/ets\_en#Carbon]\_pub-

lished annually by the Commission.