

Introduction of an emissions trading system for buildings, road transport, and additional sectors in the EU

Overview of the design of the new EU ETS 2

On 14/07/2021, the European Commission presented a series of legislative proposals as part of the 'Fit for 55' package, which is intended to align the EU's energy and climate policy instruments with the new climate target of reducing emissions by 2030 (minus 55% compared to 1990 levels).¹ The Fit for 55 package is largely characterized by a strengthening of the European Emissions Trading Scheme (EU ETS). In addition to extensive changes to the existing emissions trading system (EU ETS 1), a new emissions trading system for buildings, road transport and additional sectors² in the EU will also be introduced (EU ETS 2). In terms of the sectors included, this represents a significant decision in climate policy.

In December 2022, a political agreement was reached between EU member states, the EU Commission, and the EU Parliament on the proposed amendments to the Emissions Trading Directive (ETD). The amended Emissions Trading Directive entered into force on May 10, 2023³. This fact sheet outlines key aspects of the EU ETS 2. Other fact sheets provide information on EU ETS 1, maritime and aviation, as well as the border adjustment mechanism. In addition to these outputs, the 'Fit for 55' package also contains further strategies, measures and instruments that will contribute to the achievement of the European climate target. These will include, for example, more ambitious targets for energy efficiency and renewable energy, as well as the reform of the Energy Tax Directive.

The most important elements at a glance

- ▶ To supplement EU ETS 1, a separate emissions trading system (EU ETS 2) is to be created within the scope of the Effort Sharing Regulation (ESR) for the consumption of fossil energies in buildings, road transport, and additional sectors. After a three-year preparatory phase (with reporting obligations starting in 2024), the EU ETS 2 is to start in 2027. The start of the system can be postponed once to 2028 if gas and oil prices are at a high level.
- ▶ Analogous to German national emissions trading (nETS), the EU ETS 2 is designed as an upstream system. This means that it is not the users of fossil fuels (e.g., for cars or heating) who are obligated to participate in the EU ETS 2, but the companies (e.g., gas traders). They pass on the price signals to the users.
- ▶ The EU ETS 2 cap should be set in line with the new ESR emission reduction target. A 'frontloading' mechanism (increasing the total number of certificates by 30% in 2027) should enable a 'smoother' entry. From 2027 onwards, the number of emission allowances should decrease linearly by 5.10% of the reference quantity annually and from 2028 onwards by 5.38%. The total reduction in the buildings and transport sectors in 2030 should be at 43% compared to 2005, in the additional sectors at 42%.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0550>

² The additional sectors under Annex III EHRL correspond to the following emission sources as defined in the IPCC Guidelines for National Greenhouse Gas Inventories (2006): a) the energy industry and b) manufacturing and construction (insofar as they are not yet covered by EU ETS 1) (see Annex III of the emissions trading directive).

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023L0959>

- ▶ The allocation of emission allowances should be carried out entirely through auctions based on the cap determined by the EU Commission. The use of certificates from the EU ETS 1 (and vice versa) is not to be permitted.
- ▶ In contrast to the nETS, the EU ETS 2 does not stipulate fixed prices or a price corridor. Imbalances between supply and demand should be mitigated via a market stability reserve (MSR).
- ▶ The revenues from the auctioning of EU ETS 2 emission allowances are to be allocated proportionately to the newly created Climate Social Fund. In addition, the proceeds from the auctioning of 50 million EU ETS 1 emission allowances shall feed the Climate Social Fund in 2026 in order already to create opportunities for social compensation before the start of the EU ETS 2. In total, revenues of a maximum of €65 billion (around 25%) will be used for the climate social fund. The remaining revenues will go to the Member States and should be used for climate or socially relevant spending purposes, particularly in the areas of buildings or road transport.

1 Central Elements of the EU ETS 2

1.1 Reduction target

Net greenhouse gas emissions in the EU must be **reduced by at least 55%** compared to **1990** levels by **2030**. The current instruments and measures, however, are not sufficient to achieve this new European emissions reduction target. This is especially true for the sectors under the Effort Sharing Regulation (ESR). For these sectors outside the EU ETS 1, the reduction target was therefore increased from 29% to 40% compared to 2005. The introduction of a separate European emissions trading system for buildings, road transport and additional sectors (EU ETS 2) is intended to create stronger economic incentives to reduce emissions and to ensure that the targeted emissions reduction is actually achieved in these sectors. Specifically, greenhouse gas emissions in the **buildings and road transport** sectors should be reduced by **43%** by **2030** compared to **2005**, and by 42% in the additional sectors (ETD⁴, para. 80). The overarching national sectoral targets of the ESR are maintained at the same time.

1.2 Point of regulation

'Regulated entities' are the companies obliged to participate in the EU ETS 2 according to Art. 3ae of the EHRL. In principle, this also corresponds to the design of the nETS in Germany (**upstream approach**). The large number of small emitters in the buildings and road transport sectors would make a downstream approach, as applied in the EU ETS 1, more difficult or inefficient.

When publishing its proposal, the EU Commission had communicated that approx. **11,400 regulated entities** across the EU would be included under the EU ETS 2 (approx. 7,000 tax warehouses for oil, approx. 1,400 regional and local gas suppliers, approx. 3,000 coal suppliers). (Impact Assessment Report 1/4 of the proposed Directive, p. 57). By expanding the scope to include the additional sectors, the number of participants in the EU ETS 2 will tend to be higher.

1.3 Operating principle

The EU ETS 2 is to be launched **in 2027** after a **three-year preparatory phase**. In the preparatory phase, the regulated entities must already report their emissions to the national enforcement authorities, however, still without the obligation to submit certifications of emissions levels. The start of the system can be postponed once **to 2028**, if the gas and oil prices continue to remain at high levels. To this end, the Commission shall publish in the Official Journal by 15 July 2026 whether one or both of the following conditions were met (Chapter IVa, Art. 30k):

1. The average TTF gas price (the price of the month-ahead forward contract for gas traded on the Title Transfer Facility (TTF) virtual trading point operated by Gasunie Transport Services B.V.) in the six calendar months ending on 30 June 2026 is higher than the average TTF gas price in February and March 2022.
2. The average Brent crude oil price in the six calendar months ending on 30 June 2026 is more than twice the average Brent crude oil price in the five preceding years.

⁴ DIRECTIVE (EU) 2023/959 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 10 May 2023: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023L0959>.

EU ETS 2 will be organised as a **cap-and-trade mechanism** analogous to the existing EU ETS 1. An annual cap decreasing over time will be established for the total CO₂ emissions of the included sectors (Chapter IVa, Article 30c ETD).

The emission allowances will be auctioned in accordance with the caps. Auctioning of allowances will take place from 2027 onwards. Unlike in EU ETS 1, there will be **no free allocation** of allowances in the EU ETS 2. The regulated entities must purchase and verify allowances for the emissions in the covered sectors. There is no provision for free allocation of allowances (Chapter IVa, Article 30d ETD) because the regulated entities can and shall pass on their costs to the end users. The increased prices for end users create the needed incentives to save fuel and use low-emission technologies, so that the demand for fossil fuels and thus greenhouse gas emissions will decrease.

1.4 Scope

The EU ETS 2 should cover **combustion-related CO₂ emissions in the buildings and road transport sectors** as well as additional sectors such as energy and industrial plants outside the EU ETS 1. (Annex III of the directive, p. 146 ff). Emissions from fuel consumption in agriculture and forestry, from the use of agricultural vehicles on paved roads, and from other non-road transport sectors will not be included.

From 2027 Member States may extend the EU ETS 2 to sectors that are not listed in Annex III of the directive proposal (**Opt-In**). The prerequisite for this is that all relevant criteria are considered (in particular the effects on the internal market, potential distortions of competition, and the reliability of the planned monitoring and reporting system, etc.). The Commission must agree to such an extension and adopt corresponding delegated acts (Chapter IV, Art. 30j para. 1 ETD).

A **coupling of both systems (EU ETS 1 and EU ETS 2)** will be considered in the future but is not envisaged before 2030. Specifically, the Commission intends to assess by 31/10/2031 whether an integration of the EU ETS 2 into the EU ETS 1 should be pursued (Chapter IVa, Article 30i ETD).

As some Member States already have a national CO₂ tax in the EU ETS 2 sectors, there should be the possibility for temporary exemptions until the end of 2030. Member States shall have the possibility to **opt out** of the EU ETS 2 until then, if the national CO₂ tax rate in the EU ETS 2 sectors is on average higher than the auction price in the EU ETS 2 in the same year (Chapter IV, Art. 30e para. 3 ETD).

1.5 Cap

The EU Commission will announce the total number of allowances for 2027 by 01/01/2025 (Chapter IVa., Article 30c(1) ETD). A mechanism called '**frontloading**' is planned for the start of the EU ETS 2. The **total number** of allowances in **2027** will therefore be **30% higher** than initially planned for 2027 to prevent price jumps at the start of the EU ETS 2. The total quantity will be reduced accordingly between 2029 and 2031. This mechanism should ensure that stakeholders can also acquire allowances at an early stage for later years (Chapter IVa., Article 30d para. 1 ETD). From 2027 onwards, the number of allowances should annually decrease

linearly by **5.10%** of the reference amount⁵ (linear reduction factor, reference year 2024) (Chapter IVa, Article 30c para. 1).

It is envisaged that the **linear reduction factor** will increase to **5.38%** (applies conditionally) per year from 2028 (reference year 2025) (Article 30c para. 2). This should ensure that the cap is in line with the climate protection targets.

1.6 Market stabilisation

The CO₂ price level depends in particular on how the further climate protection measures under the Fit-For-55 package will affect emissions in the buildings and road transport sectors and in the additional sectors. In principle, the more effective further measures are, the lower the price. According to the EU Commission's assessment, its proposal would have resulted in a price level of between **€48/t CO₂** and **€80/t CO₂** (Impact Assessment Report 2/4 of the proposed directive p.339).

In contrast to the nETS in Germany, the EU ETS 2 does not envisage fixed prices or a price corridor for the auctions. Stronger imbalances between supply and demand should be mitigated via a MSR as in EU ETS 1.

Functioning of the MSR

600 million emission allowances will be added to a newly created MSR in 2027 (Chapter IVa, Article 30d para. 2 ETD). This is intended to control the number of allowances:

- If the average price of allowances exceeds a **price of €45** during a period of two consecutive months (indexed on a 2020 basis), 20 million additional allowances shall be released from the MSR into the market. This regulation shall be valid until 31 December 2029 (Chapter IVa, Article 30h para. 2 ETD).
- If the total number of allowances in circulation as an indicator of the market surplus is **more than 440 million**, 100 million allowances are to be distributed from the planned auction budget into the MSR within one year (Chapter IVa, Art. 1a ETD).
- If the total number of allowances in circulation is **less than 210 million**, 100 million allowances are transferred to the market from the MSR. If less than 100 million allowances remain in the MSR, the remaining balance is fully allocated to the market (Chapter IVa, Art. 1a ETD).
- If the average allowance price in three consecutive months exceeds **the average price** of the preceding six months **by more than 100%** (calculated from the beginning of the three-month period), the EU Commission should immediately release **50 million additional allowances** from the MSR into the market. In 2027 and 2028, the EU Commission shall release 50 million additional allowances from the MSR into the market if the average allowance price in three consecutive months is more than 50% above the average price of the preceding six months (Chapter IVa, Art. 30h para. 1 ETRL). If the average allowance price is more than 200% above the average price of the preceding six months, the EU Commission is to distribute **150 million additional allowances** from the MSR to the market (Chapter IVa, Art. 30h para. 3 ETD).

If additional allowances were released from the MSR on the basis of these regulations, additional allowances shall not be released **earlier than 12 months** thereafter (Chapter IVa, Art. 30h para. 6). An exception exists if the €45 limit is reached again. In this case, the Commission shall review the

⁵ The reference amount should be determined for the covered sectors based on the reference emissions according to the ESR.

effectiveness of the measure and may decide on a new distribution contrary to the provision in Art. 30h para. 6 (Chapter IVa, Art. 30h para. 7 ETD).

1.7 Monitoring, reporting, verification, and surrendering of emissions allowances

In principle, monitoring, reporting, verification and surrendering of emission allowances in the EU ETS 2 are based on the "compliance cycle" (recurring steps of monitoring planning, validation, monitoring and reporting, verification, surrendering of emission allowances and enforcement of the reporting and surrender obligation) of the EU ETS 1. However, the deadlines are set differently (Chapter IVa, Art. 30f ETD).

- ▶ **From 2026 onwards**, the emissions from the previous year should be reported in accordance with the monitoring and reporting requirements listed in Article 14 para. 1 (Chapter IVa, Article 30f para. 2 EHRL). In 2025, companies should report on historical emissions in the previous year (2024). The deadline for reporting on emissions in the previous year is **April 30** of each year (Chapter IVa, Art. 30f ETD).
- ▶ The **surrender obligation** is to apply for the first time **in 2028** for emissions in 2027. The corresponding allowances must be issued by **May 31** of each year (Chapter IVa, Art. 30e ETD).

Member States should ensure that regulated entities are able to record and document reliably and accurately the quantities of fuels used in the covered buildings-, road transport and additional sectors. For this purpose, it is necessary to allocate the fuels released into free circulation to the sectors affected by EU ETS 2. Member States should also take appropriate measures to mitigate the risk of double counting of emissions. Fuels used in the EU ETS 1 sectors should not be **double counted** in the EU ETS 2. In addition, fuel quantities not covered by the scope of the EU ETS 2, for which pricing in the EU ETS 2 is unavoidable due to the end-user situation not being fully known, are not to be double charged. The necessary regulations should be adopted by the EU Commission through implementing acts. This should also include financial compensation to the final consumers of the fuels in cases where such double counting may not be avoided (Chapter IVa, Article 30f para. 4).

1.8 Use of revenues

The revenues from the EU ETS 2 should be particularly used for a newly created Social Climate Fund (SCF). The remaining revenues will remain with the Member States:

- ▶ A **Social Climate Fund** managed by the EU Commission should be created one year before introducing the EU ETS 2 to enable immediate social support. In 2026, this will initially be financed from the revenue from 50 million allowances from the EU ETS 1 (40 million allowances from the quantity that could otherwise be allocated free of charge and 10 million allowances from the quantity that would otherwise be auctioned) (Chapter II, Article 10a para. 8b).
- ▶ From 2027 to 2032, revenues from **EU ETS 2** allowances are allocated to the Social Climate Fund (Chapter IVa, Art. 30d para. 3 EHRL). In total, a maximum amount of €65 billion shall be made available to the Member States between 2026 and 2032 through the SCF

(approximately 25% of the expected revenues). If the start of the EU ETS 2 is postponed to 2028, the maximum amount to be made available to the Social Climate Fund should be €54.6 billion until 2032. Article 30d (3a) additionally specifies the maximum annual amount, which shall be allocated to the Social Climate Fund. The fund is intended to promote the implementation of **national social climate plans**. Country-specific upper limits determine the maximum amount of funds that Member States can withdraw. The distribution of funds among Member States is based on certain factors such as CO₂ emissions per household, population at risk of poverty living in rural areas, total population per capita Gross National Income (GNI) (Regulation establishing a Climate Social Fund⁶: Annex I). **Eligible measures** within the Climate Social Plans include both direct income support to disadvantaged households and transport users particularly affected by CO₂ pricing in the building and road transport sectors, as well as measures and investments that provide financial support to disadvantaged households, micro-enterprises, and disadvantaged transport users to switch from fossil to climate-friendly technologies (Regulation establishing a Climate Social Fund: Art. 4+8).

- ▶ The **remaining revenues** should remain with the **Member States**. The distribution should be based on reference emission values of the ESR (average emissions of the buildings and road transport sectors of the individual Member States for 2016-2018) (Chapter IVa, Article 30d para. 5). The Member States must use the revenues and the revenues that will be available through the Social Climate Fund for one or more of the **climate and/or socially relevant expenditure purposes** mentioned in Article 10 para. 3, particularly in the buildings or road transport sectors. These can be, for example, measures that reduce the energy demand of buildings or support a modal shift to public transport. Priority is to be given to measures that focus on social aspects of emissions trading (Chapter IVa, Article 30d para. 6a+b ETD). Additionally, the revenues can be used to finance the Social Climate Plans. In cases where double counting cannot be avoided, it can also be used to fund financial compensation (Chapter IVa, Article 30d para. 5c+d ETD).

2 Differences to national fuel emissions trading

The scope of the EU ETS 2 has been expanded compared to the EU Commission's proposal. Nevertheless, the scope is narrower than that of the nETS in Germany. Only **fuel consumption in the buildings and road transport sectors as well as additional sectors** (especially the small industry) is to be covered, not all fuel consumption outside the EU ETS 1 as in Germany. In EU ETS 2, for example, "only" the road transport sector is covered, i.e., not the fuel use in rail transport. Additionally, fuel use in, for example, agriculture and forestry as well as waste incineration plants are not included in the EU ETS 2 – but are by the nETS in Germany.

Furthermore, there are **no plans for a fixed price phase** in the EU ETS 2 - pricing will take place directly via the market. The **compliance cycle** of the EU ETS 2 (reporting obligation by April 30, submission obligation by May 31) differs from the compliance cycle in fuel emissions trading in Germany (reporting obligation by July 31, submission obligation by September 30).

⁶ Regulation (EU) 2023/955 of the European Parliament and of the Council of 10 May 2023 establishing a Climate Social Fund and amending Regulation (EU) 2021/1060: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0955>.

3 Next steps and key issues for the political process

The emissions reporting by companies will already start in 2024. Member states must implement the legal and administrative provisions required for the introduction of the EU ETS 2 at national level by June 30, 2024. The regulatory phase will then begin in 2027 with the first reporting year for which allowances acquired in the auctions or on the carbon market would have to be surrendered.

The EU Commission is to submit a report on the effectiveness of the EU ETS 2 to the European Parliament and Council by 1 January 2028, and, if necessary, present amendment proposals (Chapter 4, Art. 30i). A few aspects will be decisive for this:

- ▶ **Scope:** EU ETS 2 shall not cover all fossil fuels, which are not yet included in the EU ETS 1. Only those fuels used in the sectors of buildings, road transport and additional sectors should be priced. The procedure for the concrete classification of emissions has not yet been defined.
- ▶ **Price determination:** Despite numerous price-dampening measures, CO₂ prices in the EU ETS 2 are formed on the market. Here it will be important how the new carbon market is constituted, what prices are established, and what effect the price-dampening measures have.
- ▶ **Use of revenues, distributional effects, and acceptance:** The emissions trading directive envisages that the revenues will be used in its entirety for climate and socially relevant measures. However, the effectiveness of these measures depends on their specific design.

Transition from the German national emissions trading system (nETS) to EU ETS 2: A large part of the emissions covered by the nETS in Germany will be regulated in EU ETS 2 - however, the scope of the nETS is more comprehensive. Thus, the question of an "opt-in" of these emissions into the EU ETS 2 arises.

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