ETS2: Fuel for the yellow vests or driver of the green transition?

Institut Jacques Delors — Thinking Europe / Penser l'Europe / Europa denken — Notre Europe

1st jan. 2027 — A new European carbon market (ETS2) will come into force across the EU

Sectors covered: road transport, buildings, construction, small industry

The ETS2 relies on the **"polluter pays"** principle: a trading system (buying and selling) "pollution rights" also known as **emission allowances or permits**. Each allowance corresponds to one ton of CO_2.

1 ton

The ETS2 is part of the FitFor55 climate policy package[1]

by 2030 — **- 55%**: a reduction in greenhouse gas emissions target (compared to 1990 levels).

The proposed ETS2 covered nearly 50% of the additional effort required for the transport and building targets.

1st semester 2022 — Negotiated during the French Presidency of the Council of the EU, ETS2

Functioning and scope

Regulated entities (energy and fuel distributors)

1. purchase or sell allowances → **CO_2 emissions allowances** → revenues generated → **National budgets**

Revenues generated within a limit of €65 billion

3. Mandatory allocation of 100% of ETS2 revenues to actions for climate and energy purposes

4. Mandatory national co-financing of at least 25% of the Social Climate Fund (€21.7 billion)

Social Climate Fund (€86.7 billion from 2026 to 2032)

Accompanying measures may include direct income support for and micro-enterprises vulnerable users, up to 37.5% of total costs.

5. National measures to support and assist decarbonisation and/or tax/budgetary compensation

2. The extra costs are fully passed on to households and businesses

Final consumers

Households, small companies or industries facing higher bills as they use gas, oil heating, or thermal vehicles (petrol, diesel, kerosene).

ETS1 covers direct CO_2 emitters such as heavy industry and power generation)

ETS2 applies to distributors of fossil fuels and combustibles ('regulated entities') for use in the **road transport**[2], **building**[3], **construction**[4] and **small industry**[5] sectors. All fossil-based products sold by these distributors are subject to emissions allowances.

As the use of fossil fuel products sold by distributors emits CO_2 (petrol, gas/fuel oil for heating), they will have to purchase a number of allowances equivalent to the emissions generated by the use of their products. (1)

This additional cost should be fully passed in the price paid by the end consumer, i.e. households or businesses. (2)

The carbon price will result in higher bills for end consumers in Europe.

For buildings, the additional cost could be in the range of **10 to 30%**, depending on the fossil fuel concerned and the Member State.

European Commission estimates: With a 48€tCO_2 price → Leading to a surplus of: 13c/L for diesel; 11c/L for petrol

The bullish effect of the carbon price will also vary depending on how each Member State decides to combine ETS2 and any existing carbon tax.

2025 — Following France's carbon tax example, eight other states[6] have a carbon tax with a scope that more or less encompasses the one of the ETS2, particularly with regard to the use of fossil fuels in buildings.

Example:

FRANCE — ETS2 price: 50€tCO_2 + 44,6€tCO_2 carbon tax

additional cost estimated by the French Court of Auditors[7]: 11 to 13% for gas; 10 to 11% for fuel

Rexecode[8] modelled the average annual additional cost for the average French household: 155€ = 105€ related to transport + 50€ related to buildings

Conversely, other EU countries, particularly in Eastern Europe, who do not have a carbon tax, will see a significant increase in their bills as no carbon pricing mechanism is in place there.

Why a new carbon market, and for what purposes?

The objective of this harmonised price signal is to **encourage users to change their behavior by moving towards carbon-free alternatives.**

Example:

Internal combustion engine vehicle → electric vehicle

fossil fuel boiler → heat pump

In practical terms, this European carbon price will **increase the cost of using fossil fuels** (fuel oil, gas, petrol, diesel, coal, etc.).

In order to support these changes, the proper use of revenues generated by ETS2 will be crucial. (3)

Each Member State will be able to:

- Use money from the SCF
- As well as revenues from the ETS2

Ex.: FRANCE — SCF €1.2 bn/y; ETS2 €6.5bn/y with a 50€tCO_2 price

Measures that could be financed:

- **support and assistance with decarbonisation**[9], (e.g. via social leasing for electric vehicles or the "MaPrimeRénov" building renovation scheme in France)
- **tax relief** (tax credits, reduced VAT)
- **budgetary measures** (revaluation of the energy cheque or the introduction of a universal carbon income) to mitigate the effects of price increases.

The Social Climate Fund

Starting 2026 — A **Social Climate Fund** (SCF) (4) with an estimated envelope of €86.7 bn over the 2026-2032 period will be financed as follows:

ETS1 REVENUES — For 2026 only — 50 million — Revenues coming from the auctioning of allowances from ETS1 — €4 bn

ETS2 REVENUES — Starting 2027 — min. 150 million — Revenues from the auctioning of ETS2 allowances and an additional quantity of allowances determined by the Commission based on the market price. — €65 bn

CO-FINANCING SCF — Through a mandatory co-financing coming from Member States for at least 25% — amounting €21.7 bn

Maximum amount of the SCF: €86.7 bn

The disbursement of revenues contributing to the Social Climate Fund must be submitted for validation to the European Commission as part of a **national social climate plan** using a mechanism similar to that used for European recovery plans.[10]

The distribution of revenues via the Fund is based on a series of criteria (total population, proportion at risk of poverty, gross national income per capita in purchasing power parity terms, etc.) in line with a logic of solidarity towards the poorest and most fossil fuel-dependent countries.

Each plan must list the measures and investments that will be undertaken in order to meet the listed criteria. Operating as a **performance-based instrument**, the disbursement of revenues occurs after milestones and targets have been achieved, allowing for the effectiveness of the measures implemented to be assessed.

30 june 2025 — 1 oct 2025

The development of the plans must be preceded by a **mandatory public consultation of stakeholders** (local and regional authorities, economic and social partners and relevant civil society organisations). Although a first draft of these plans was expected by 30 June 2025, only 16 states had submitted their plans by 1st October 2025.

ETS2 price scenarios and associated revenues

100% — If 100% of carbon revenues are to be earmarked for actions related to climate and energy... → ...the exact amount remains unknown, as it depends on the carbon price.

A "central" scenario over the 2027-2032: 60€/tCO_2 = €250 bn of national revenues[11] (5)

Prix (€tCO_2)

Source	Prix (€tCO_2)	Revenues in billion €
Eden et al. (2023)	45	170
T&E (2025)	55	210
Öko-Institut (2022)	70	305
T&E (2025)	100	450
Öko-Institut (2022)	110	530

Revenues in billion € expected over the 2026-2032 period excluding SCF

Many factors, either political or technical, are likely to cause fluctuation of the CO_2 price, either upwards or downwards:

Rapid implementation of European and national regulations on the transport and building sectors, particularly in the main emitting countries, **would reduce demand for emission permits and therefore the carbon price.**

However, we have been able to demonstrate through a prospective analysis[12] that the trend at European level is heading towards a **downward revision of ambition** rather than maintaining climate targets as they stand.

POSTPONING — would lead to a price increase

A deferral, to be decided no later than 15 July 2026, in the event of exceptional prices for gas or Brent crude oil during the six calendar months prior to 30 June 2026.

Gas price must be: > 100€/MWh — while being at 30€/MWh currently

Brent price 160$/baril — while being at 65$ currently

Such a postponement would effectively reduce the Social Climate Fund's budget and could increase pressure on the carbon price.

MARKET STABILITY RESERVE — would lead to a price decrease

The Market Stability Reserve (**MSR**) is an instrument that regulates the market by absorbing surpluses or releasing quotas in order to maintain price stability.

The MSR is supposed to come live in 2028 but changes have been proposed by 19 Member States:

Starting 2027 — the launch of the MSR could be revised and moved forward by a year

2031 — Not end in 2031: the MSR is expected to expire in 2031 but the end date could be extended

To address the Member States' concerns, the European Commission has proposed: Earlier and more gradual injections of allowances from the MSR in case of lower market liquidity

FRONTLOADING — would lead to a price decrease

An early auction of the allowances — 30% additional quotas (known as 'frontloading') — 1 jan. 2027 → may 2028

Operating by taking a portion of the auction volume from the 2029-2031 period. → This frontloading will make the market more liquid and keep prices low due to excess supply.

Starting 2029 — If emissions from the sectors concerned have not fallen as expected, a significant increase can be expected due to the scarcity of allowances.

This frontloading of allowances should not be confused with the frontloading of carbon revenues as recently proposed by the European Commission through the Frontloading Facility. The frontloading of future carbon revenues consists in granting Member States, in advance and via the European Investment Bank, an amount corresponding to expected future carbon revenues in order to pre-finance decarbonization programs starting now.

SOFT PRICE CAP — would lead to a price decrease

If the carbon price reach a 2020 price of 45€tCO_2 — which is equivalent to 60€tCO_2 in 2027-2030

OR if the price spikes — x2 x3 compared to the average price of the last 6 months.

The mechanism can be triggered twice a year, to release up to 80 million allowances on the market each year in 2027, 2028 and 2029.

LINEAR REDUCTION FACTOR

The Linear Reduction Factor (LRF) determines the rate at which the number of allowances put into circulation (cap) decreases each year. If the LRF were increased, the price would do the same, and vice versa.

This dual uncertainty (political and technical) is directly reflected in carbon price projections for 2030:

- wide price ranges
- exceed (the majority of them) the price modelled by the European Commission in its July 2021 impact assessment

Price estimates (€tCO_2) in 2030

Source	Price estimate (€tCO_2)
Homaio - Haute émission (2024)	259
Homaio - Scénario de base (2024)	222
Pahle et al. (2025)	126
Bloomberg NEF (2025)	122
Homaio - Faible émission (2024)	112
Clear Blue Markets (2025)	105
European commission (2021)	80
European commission (2021)	48

The futures market currently prices the December 2028 at a 88€tCO_2 price

6 may 2025 — However, since its inception, trading has remained largely illiquid for the time being.

Implementation timeframe

- **APRIL 2023** — Adoption of the revision of the ETS2 directive
- **31 DEC. 2023** — Deadline for applying for an ETS2 exemption valid until 2030 in the case of existing carbon tax
  - Only Ireland notified to the European Commission its willingness to benefit from the exemption
- **30 JUNE 2024** — Deadline for transposing the ETS2 directive
  - As of 15 October, only 15 Member States have transposed the directive
- **1 JAN. 2025** — Issuance of emission permits and validation of monitoring plans by national authorities
- **30 JUNE 2025** — First draft of the Social Climate Plans are sent to the European Commission
- **1 JAN. 2026** — Social Climate Fund enters into force
  - Preparatory phase with monitoring obligation and emissions reporting
- **31 JULY 2026** — Revision of the ETS directive
- **1 JAN. 2027** — ETS2 enters into force
- **30 JUNE 2027** — Publication of the volume of quotas to be sold for the following year
- **1 JAN. 2028** — Assessment of ETS2 by the European Commission or Entry into force of ETS2 if a one-year deferral procedure is implemented
- **1 SEPT. 2028** — MSR enters into force
- **31 DEC. 2029** — Assessment by the Commission of the appropriate calibration of the €45/tCO2 threshold triggering the MSR
- **31 DEC. 2030** — Expiry of the MSR
- **31 OCT. 2031** — Assessment of the appropriateness of a merger between ETS1 and ETS2

1. Defard, C. & Nguyen, P.-V. "Towards climate neutrality: what transformations by 2030 under the FitFor55", Infographic, Jacques Delors Institute, February 2024.
2. Fuels such as diesel and petrol.
3. Heating fuels such as fuel oil, gas and coal.
4. Non-road diesel.
5. Industrial fuels and combustibles.
6. These are: Sweden, Finland, France, Ireland, Germany, Luxembourg, Denmark, Luxembourg and Slovenia.
https://assets.bbhub.io/promo/sites/16/EU_ETS_II_Pricing_Scenarios_Balancing_Cuts_and_Costs.pdf
7. https://www.ccomptes.fr/sites/default/files/2024-09/20240906-S2024-0646-Place-fiscalite-energie-dans-politique-energetique-et-climatique-francaise_0.pdf
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9. Eisl, A, Nguyen, P.-V "How to make the ETS2 socially acceptable? Lessons from national CO_2 price systems for well-designed carbon revenues redistribution and investments", Paper, Jacques Delors Institute, November 2025.
10. https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/766207/EPRS_BRI(2024)766207_EN.pdf
11. Jüngling, E., G. Sgaravatti, S. Tagliapietra and G. Zachmann (2025) 'Making the best of the new EU Social Climate Fund', Policy Brief 14/2025, Bruegel
12. Nguyen, P.-V. "European Green Deal: continuation or end?", Brief, Jacques Delors Institute, June 2024.

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