

Swiss ETS

General Information

ETS Description

The Switzerland (Swiss) ETS started in 2008 with a five-year voluntary phase. Thereafter, participation was mandatory for large, energy-intensive entities and voluntary for medium-sized entities. The Swiss ETS covered about 12% of the country's total GHG emissions in 2021 (incl. aviation). Participants in the ETS are exempt from the national CO₂ levy.

The Swiss ETS covers electricity generation, industrial entities (largely comprising companies from the cement, chemicals, pharmaceuticals, paper, refining, and steel sectors), domestic aviation, and flights to the European Economic Area and the United Kingdom. Allowances are allocated through benchmarking and auctioning. Free allocation for aviation is being phased-out by 2026. Auctioning volumes may be reduced if the total number of allowances in circulation exceeds a certain threshold.

The Swiss ETS has been linked with the EU ETS since January 2020. The same benchmarks as in the EU ETS apply to entities covered by the Swiss ETS.

The system is mandated by the Federal Act on the Reduction of CO₂ Emissions ("CO₂ Act") and regulated through an implementing regulation ("CO₂ Ordinance").

ETS Status

in force

Jurisdictions

Switzerland

Year in Review

After a revision of the CO₂ Act failed to pass a referendum in June 2021, the Swiss Parliament extended the current CO₂ Act to 2024. This included the target to reduce emissions by 1.5% per year compared to 1990 levels. In November 2022, the Swiss Federal Council published a new proposal for a revision of the CO₂ Act that covers the period from 2025 to 2030, including Switzerland's 50% emission reduction target for 2030. The proposal includes provisions to align the Swiss ETS with the revised EU ETS. The law has been debated through its first reading in the Swiss parliament.

In November 2023, the EU and Switzerland concluded the 2024 emission allowance transfer arrangements between their systems. From January 2024, daily transfers, with exceptions for specific dates, replaced the previous twice-weekly schedule. Details on the 2025 arrangements are anticipated by the end of 2024.

Sectoral coverage

Domestic Aviation

Industry

Power

Revenue usage

General budget, including debt reduction

Emissions & Targets

Overall GHG Emissions excl. LULUCF (MtCO₂e)

45.2 MtCO₂e (2021)

GHG reduction targets

From 2021 to 2030: On average at least 35% reduction from 1990 GHG levels (NDC and draft CO₂ Act)

By 2025: Anticipated 35% reduction from 1990 GHG levels (NDC)

By 2030: At least 50% reduction from 1990 GHG levels (NDC and draft CO₂ Act)

By 2050: Net-zero GHG emissions (NDC and Climate and Innovation Act)

Current Allowance Price (per t/CO₂e)

Average auction price: EUR 81.08 (USD 87.67) (average auction price in 2023; updated prices available [here](#))

Size & Phases

Covered emissions (2021)

12.00%

Verified ETS Emissions

5.50MtCO₂e

GHGs covered

CO₂, N₂O, CH₄, HFCs, NF₃, SF₆, PFCs*

* In principle, all these gases are covered in accordance with the CO₂ Ordinance. In practice, only CO₂, N₂O, and PFCs require monitoring, as the share of the other gases is negligible.

Phases

VOLUNTARY PHASE: Five years (2008 to 2012)

SECOND TRADING PERIOD: Eight years (2013 to 2020)

THIRD TRADING PERIOD: Ten years (2021 to 2030)

Cap or total emissions limit

A cap limits the total emissions allowed in the system.

VOLUNTARY PHASE (2008 to 2012): Each participant received its own entity-specific reduction target.

SECOND TRADING PERIOD (2013 to 2020):

Stationary installations: Overall top-down cap of 5.6 MtCO₂e (2013) that was reduced annually by a constant linear reduction factor of 1.74% (of baseline emissions set by entities' historical data of the years 2008-2012) to 4.9 MtCO₂e in 2020.

Aviation: 1.3 MtCO₂ (2020)

THIRD TRADING PERIOD (2021 to 2030): An annual linear reduction factor of 2.2% (2010 base year) applies to the cap for stationary installations and to the aviation cap. The caps for stationary installations and aviation amounted to 4.5 and 1.2 MtCO₂, respectively, in 2023.

Sectors and thresholds

MANDATORY PARTICIPATION: Industries listed under Annex 6 of the CO₂ Ordinance must participate in the Swiss ETS. These include 25 categories, such as cement, chemicals and pharmaceuticals, refineries, paper, district heating, steel, and other sectors. Since 2020, the ETS has covered emissions from aviation (domestic and outbound flights to the EEA or the UK) and fossil-thermal power plants.

INCLUSION THRESHOLDS: Facilities in the sectors included in Annex 6 of the CO₂ Ordinance that have a total rated thermal input of >20 MW.

POSSIBLE VOLUNTARY OPT-IN: Industries – listed under Annex 7 of the CO₂ Ordinance (21 activities) – with a total rated thermal input of ≥10 MW. A company that fulfils the participation conditions must submit the application within the following six months.

POSSIBLE OPT-OUT: Industries with a total rated thermal input greater than 20 MW but emissions below 25,000 tCO₂e in each of the past three years. If an entity's future emissions rise above the threshold in a given year, it must participate in the ETS starting from the following year and cannot opt out for the remainder of the compliance period. New entrants can apply for an opt-out with immediate effect if they can credibly report their emissions to be below 25,000 tCO₂e/year.

AVIATION: Commercial aircraft operators emitting more than 10,000 tCO₂/year or operating more than 243 flights in a four-month period in the preceding year. Non-commercial operators are included when emitting more than 1,000 tCO₂/year. The thresholds do not apply if the operator has obligations under the EU ETS.

Point of regulation

Point source

Type of entities

Installations (power and industry) and companies (aviation)

Number of entities

Stationary installations: 97 (2023)

Aircraft operators: 173 (2022)

Allowance Allocation & Revenue

Allowance allocation

VOLUNTARY PHASE (2008 to 2012): Participants received free allowances covering emissions up to their entity-specific emissions target.

SECOND TRADING PERIOD (2013 to 2020):

Free allocation: Free allocation was based on industry benchmarks using a similar methodology to the EU ETS. Free allocations for sectors not exposed to the risk of carbon leakage were phased out gradually. In 2013, these entities received 80% of their allowances for free, which was reduced to 30% by 2020.

A correction factor was implemented to reduce the allocated emissions allowances, determined by industry benchmarks and ensuring they aligned with the specified overall emissions cap.

Free allocation for aircraft operators was based on tonne-kilometer data for 2018 reported by individual aircraft operators, multiplied by the benchmark of 0.642 emissions allowances per 1,000 tonne-kilometers (same benchmark as in the EU ETS).

Auctioning: Allowances that were not allocated for free were auctioned. Auctions took place two or three times a year, depending on available auction volumes. From January 2020, auctions are open to entities covered by the Swiss ETS and the EU ETS, as well as to non-compliance entities allowed to place bids in the EU ETS. In line with EU ETS legislation, the Federal Office of the Environment (FOEN) has the authority to cancel the auction if the clearing price is significantly below the prevailing secondary market price of the EU ETS. In such a situation, allowances are transferred to subsequent auctions.

5% of the allowances are set aside in a reserve for new entrants and fast-growing operators.

Aviation: In line with EU ETS regulations, starting in 2020, 15% of aviation sector allowances are auctioned. 3% were placed in the reserve dedicated to new and fast-growing operators. The remaining 82% was allocated according to sector-specific benchmarks

THIRD TRADING PERIOD (2021 to 2030):

Free allocation: As of 2022, the Swiss ETS applies the same allocation benchmarks as the EU ETS. Free allocation levels may be updated annually if production levels deviate at least 15 percentage points from the 2014-2018 base years.

Auctioning: Since 2022, auction volumes have been subject to a market stability mechanism (see 'Market Stability Provisions' section).

Auctioning share

8%

Total Revenue

EUR 135.2 million (USD 146.2 million) since the beginning of the program

EUR 35.9 million (USD 38.8 million) in 2023

2023

Use of Revenues

Revenues from auctioning allowances accrue to the general budget of the federal government.

Flexibility & Linking

Offset credits

The use of offset credits is not allowed.

QUALITATIVE LIMITS: Since 2021, offset credits cannot be used to meet compliance obligations. International offset credits were allowed up to 2020, subject to certain criteria. Most categories of credits from CDM projects in least-developed countries were allowed. Credits from CDM and Joint Implementation projects from other countries were eligible only if registered and implemented before the end of 2012.

QUANTITATIVE LIMITS: During 2013 to 2020, the maximum amount of offset credits allowed into the system was set at 11% of average emissions allowances allocated in the voluntary phase (2008 to 2012), minus offset credits used in that same time period, multiplied by five.

Industries that entered the Swiss ETS in the second trading period (2013 to 2020) could surrender offsets to cover up to 4.5% of their emissions. For aircraft operators, the quantitative limit was set at 1.5%.

Banking and borrowing

Banking within and across phases is allowed without limits. Banked allowances from Phase 3 of the EU ETS can be used for compliance in the 2021 to 2030 trading phase.

Valid certificates from the UNFCCC flexible mechanisms (Certified Emission Reductions and Emission Reduction Units) from the 2008 to 2012 phase could be banked into the second trading period and surrendered until April 2015.

Borrowing is not allowed, although allocated allowances from the current trading year may be used for surrender obligations of the prior year.

Links with other Systems

Switzerland concluded negotiations with the EU on linking their respective systems in 2015 and signed the agreement in 2017. Following legislative approval and ratification in 2019, the link entered into force in January 2020. Prior to that, revisions were made to align with the EU ETS legislative framework.

Covered entities in the Swiss ETS can use allowances from the EU ETS for compliance, and vice versa. The two systems run separate

auctions. Market participants from the EEA need an account in the Swiss Emissions Trading Registry in order to participate. In 2024, allowance transfers between the EU and Swiss registries will be executed on a daily basis, with specific exceptions for certain dates. This arrangement follows an agreement reached in November 2023 by the Joint Committee overseeing the EU and Swiss linking agreement. The 2024 arrangements cover a 12-month period, with information on 2025 arrangements expected before the end of 2024.

Compliance

Compliance mechanism

Covered entities must surrender one allowance per tCO₂e emitted for all their covered emissions.

Compliance Period

One calendar year. Covered entities have until the end of September of the following year to surrender allowances.

Monitoring, Reporting, Verification (MRV)

MONITORING: Monitoring plans are required for every installation and for every aircraft operator (no later than three months after the registration deadline). Monitoring plans must be approved by a competent authority. Emissions according to the Swiss CO₂ Ordinance (mainly CO₂ and N₂O) are subject to monitoring.

REPORTING: Annual monitoring report, based on self-reported information (by the end of March).

VERIFICATION: FOEN may order third-party verification of the monitoring reports from installations and can take random samples to ensure consistency. Aircraft operators must have their monitoring reports verified by an accredited third-party verifier.

Enforcement

The penalty for failing to surrender sufficient allowances is set at CHF 125/tCO₂ (USD 139/tCO₂). In addition to the fine, entities must surrender the missing allowances in the following year.

Market Regulation

Market Stability Provisions

The authorities introduced a market stability mechanism in 2022 that reduces auction volumes if the quantity of emissions allowances in circulation exceed a certain threshold.

If the number of allowances in circulation exceeds 50% of the cap of the previous year, the market stability mechanism reduces the auction volume of the current year by 50%. In 2022, the market stability mechanism reduced the auction volume from 460,000 to 230,000 and in 2023 from 580,000 to 290,000 allowances.

The unauctioned allowances lose their validity after the end of the compliance period. The mechanism is regularly reviewed against market dynamics and developments in the EU. The Swiss ETS is not subject to the EU ETS Market Stability Reserve.

Market Design

MARKET PARTICIPATION: Compliance entities, non-compliance entities (domestic and international) and individuals. Traders are subject to a holding limit of one million Swiss/EU allowances.

MARKET TYPES:

Primary: Single round sealed-bid uniform price auction, organized by the Swiss Emissions Trading Registry several times per year.

Secondary: Swiss allowances are not traded on regulated trading platforms but may be traded over the counter. EU ETS allowances, which can be used for compliance in the Swiss ETS, are traded on multiple exchanges, including ICE Futures and EEX.

LEGAL STATUS OF ALLOWANCES:

Allowances do not qualify as financial instruments under Swiss financial market regulations. Emissions allowances may form the underlying asset of derivative contracts which are covered by the “Financial Market Infrastructure Act”.

Other Information

Institutions involved

Federal Office for the Environment (FOEN): Implementing authority, e.g., responsible for the registry, for auctioning allowances, and receiving emission reports.

Regulatory Framework

[Federal Act on the Reduction of CO₂ Emissions \(CO₂ Act\)](#)

[Ordinance on the Reduction of CO₂ Emissions \(CO₂ Ordinance\)](#)

[Draft for a CO₂ Act revision](#)

Evaluation / ETS review

Transitional revisions to the CO₂ Act (main ETS legislation) and CO₂ Ordinance (implementing regulation) came into effect at the start of January 2021 in order to ensure continuity on Swiss climate policy and extend the lifetime of the ETS (for an unlimited period). Latest revisions came into effect in January 2024.

The full revision of the CO₂ Act was rejected in a popular vote in June 2021. A transitional extension of the Act for 2022-2024 was adopted in December 2021. A new proposal for a revision of the Act that covers the period from 2025 to 2030 was published by the Federal Council in November 2022 and is currently being debated in Parliament. The proposal provides for a linking-compatible revision of the ETS.

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