



Factsheet

Date

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Linking the Swiss and EU emissions trading schemes

Emissions trading is an internationally established instrument of climate policy. It aims to reduce greenhouse gas emissions and operates according to market principles. The emissions trading schemes (ETS) in Switzerland and the EU have significant similarities. The ETS should not be confused with trading certificates from climate protection projects.

Switzerland and the EU are aiming to link their two emissions trading schemes (ETs - also known as 'emissions trading systems'). This means that the emission allowances in both systems will be mutually recognised. An agreement was initialled at the beginning of 2016 and signed on 23 November 2017. The Swiss Parliament approved this agreement on 22 March 2019 and accepted the necessary changes to the current CO₂ Act. For these decisions to be implemented, the CO₂ Ordinance has to be amended. The linking agreement is scheduled to come into force on 1 January 2020. Once the two schemes are linked, this will lead to a convergence in Swiss and EU CO₂ prices and an equal playing field for the companies involved. Furthermore, in line with the current regulation in the EU, civil aviation and any fossil-thermal power plants will be integrated into the Swiss ETS. As regards civil aviation, domestic flights and flights from Switzerland to countries in the European Economic Area (EEA)¹ will be affected. For fossil-thermal power plants, the existing compensation obligation will be discontinued. However, under legislation introduced by Parliament, the total CO₂ costs of any fossil-thermal power plants will now be based on the external costs (costs currently borne by the public at large rather than the party responsible). This means that it will remain financially unattractive to operate such power plants in Switzerland.

According to studies², by 2030 the overall economic impact of linking the ETS is expected to be small and slightly positive. Slightly negative effects for aviation (CHF 163 million reduction in value added) resulting from its inclusion in the ETS will be more than offset by positive effects (CHF 320 million increase in GDP) from lower long-term CO₂ costs for industrial companies participating in the ETS.

¹ EU Member States plus Iceland, Norway and Liechtenstein

² Ecoplan (2016): *Auswirkungen eines EHS-Linkings Schweiz-EU für den stationären Bereich*; Infrac (2016): *Auswirkungen eines EHS-Linkings für den Bereich Luftfahrt. Aktualisierung für die Schweiz*; FOEN (2017): *EHS-Linking: Gesamtbeurteilung der volkswirtschaftlichen Auswirkungen*. The studies are available (in German) at www.bafu.admin.ch > Themen > Klima > Rechtliche Grundlagen > Totalrevision CO₂-Gesetz > Grundlagen und Studien.

1. Emissions trading scheme based on 'cap and trade'

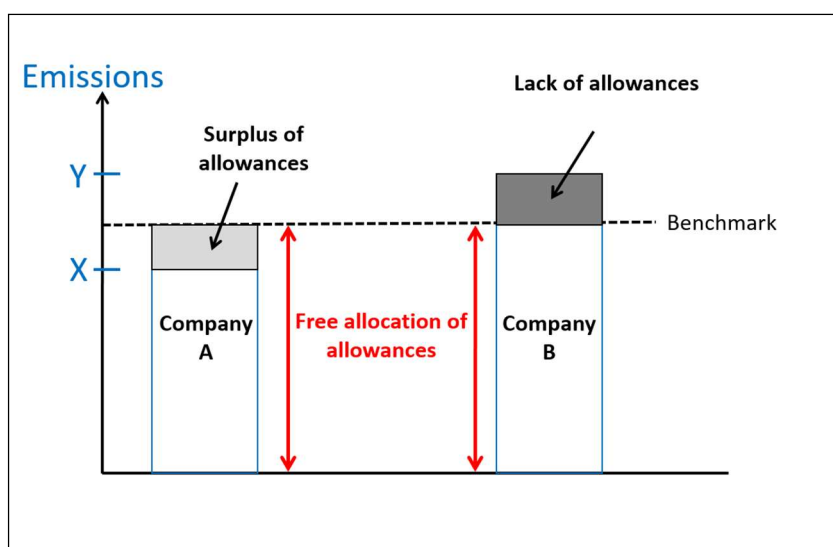
An ETS based on the 'cap and trade' principle is a volume control instrument³. It is comparable to quotas, in the sense that the state issues emission allowances within the scope of a pre-defined upper limit for emissions (cap) and allocates them for a certain period to ETS participants. The participants are thus given the right to emit a certain volume of greenhouse gases free of charge and to trade emission allowances.

1.1 Inclusion of industrial plants and fossil-thermal power plants

In Switzerland, as in the EU, participation in the ETS is compulsory for companies in certain greenhouse gas intensive industries (including cement, paper, refineries, chemicals, glass, steel and ceramics). Companies must surrender sufficient emission allowances each year to cover the volume of their greenhouse gas emissions. If they produce more emissions than they should, exceeding their allocation of emission allowances, they are required to purchase additional credits. These credits are either surplus emission allowances from other ETS participants that emitted less than their allocation of emission allowances, or, to a limited extent, certificates from climate protection projects abroad (see section 2). Alternatively, ETS participants can reduce their greenhouse gas emissions and thus avoid the need to purchase extra credits. ETS participants that do not surrender a sufficient amount of credits must also pay a fine for each excess tonne of emitted CO₂ equivalent⁴ (CO₂-eq).

Every year, ETS participants are allocated a certain amount of emission allowances free of charge, based on average values (benchmarks) for very greenhouse gas efficient reference installations (best-in-class approach). This system rewards efficient participants that produce fewer emissions (see Figure 1).

Figure 1: Allocation free of charge based on a benchmark



Participants A and B each receive an equal amount of emission allowances per tonne of manufactured product (e.g. lime or roof tiles), irrespective of their actual greenhouse gas emissions. Participant A, with a greenhouse gas emissions output under the benchmark (X), ends up with more emission allowances than it needs to cover its emissions, while participant B produces emissions in excess of the benchmark (Y), and must either take appropriate action or purchase emission credits.

³ By contrast, the CO₂ levy is a price control instrument that imposes a surcharge on fossil fuels, encouraging less use of such fuels and thus reducing CO₂ emissions. In the ETS, the volume is predetermined, and CO₂ prices are based on supply and demand.

⁴ CO₂ equivalent is a measure used to compare the effect of different greenhouse gases. It indicates how much a given mass of a greenhouse gas contributes to global warming compared to the same amount of CO₂.

Currently, the operators of over 50 greenhouse gas intensive industrial plants participate in the Swiss ETS, while the EU scheme includes the operators of more than 11,000 industrial plants and fossil-thermal power plants. Civil aviation has also been integrated into the EU scheme since 2012 (see section 1.2). The Swiss ETS covers around 5.5 million tonnes of CO₂-eq, corresponding to approximately 10% of Swiss emissions, whereas the EU ETS covers approximately 2 billion tonnes of CO₂-eq, or around 45% of EU emissions.

The cap under the ETS is set in advance for the duration of the trading period (currently 2013 to 2020), while the amount of available emission allowances is reduced annually across the system (currently by 1.74%). Every year, 5% of the available emission allowances are reserved and set aside for new operators joining the ETS or existing ETS participants that expand their production capacity. Emission allowances that are not allocated free of charge can be purchased at regular auctions.

The auction price for a tonne of CO₂ in Switzerland, initially over CHF 40 in 2014, fell to CHF 5.15 at the last auction in November 2018. In the EU, prices have increased from around EUR 10 to around EUR 20 within one year (as of March 2019). These relatively low prices, particularly in the past, are evidence of a surplus of emission allowances, especially in the EU, and currently provide limited incentive for investment. In response to these low prices, the EU introduced a market stability reserve in 2015. Since 1 January 2019, it has been possible, in the event of an oversupply, to siphon off a certain quantity of European emission allowances and allocate them to this reserve. According to analysts, the price increase in the EU ETS over the past 12 months is partly due to ETS participants pricing these reforms into their market expectations.

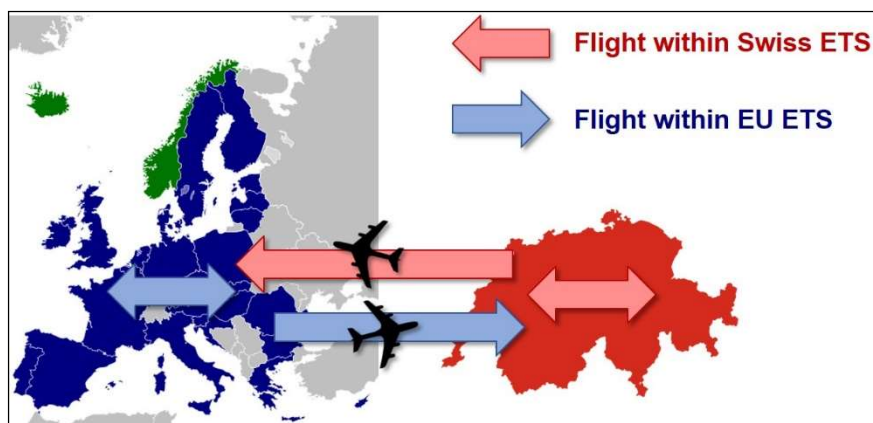
1.2 Inclusion of aviation

Aviation has been included in the EU ETS since 2012. Currently, around 500 aircraft operators in the EU ETS are required to have emission allowances covering their CO₂ emissions from domestic flights and international flights within the EEA. Aviation-specific emission allowances are made available in the EU ETS each year (aviation cap), of which 82% are allocated free of charge based on aircraft operators' past activity, 15% are auctioned and the remainder are reserved for new and fast-growing operators. If aviation, which is generally a high-growth industry, requires more emission allowances than its cap allows, it must cover this additional demand with emission allowances for stationary installations. This has been the case in the EU ETS every year since 2012. These emission allowances are then no longer available to industry and power plant operators.

Under the linking agreement with the EU, the Swiss ETS will follow the principles of the EU ETS with respect to aviation. Uniform rules will therefore apply to the geographical coverage, the aviation cap and the free allocation of emission allowances. However, flights will never be covered twice but rather assigned to one ETS according to the departure principle: flights within the EEA (domestic and international flights) as well as flights from the EEA to Switzerland will be assigned to the EU ETS, while flights within Switzerland and flights from Switzerland to the EEA will be assigned to the Swiss ETS (see Figure 2). An aircraft operator may therefore have obligations under both schemes if it flies between Switzerland and the EEA. To minimise the administrative burden, aircraft operators will only have to deal with one authority for all obligations under both the Swiss and EU schemes ('one-stop shop' approach).

An estimated 240 domestic and foreign aircraft operators will have obligations under the Swiss ETS (and in most cases the EU ETS too). Around 10-20 of these will be Swiss operators, who will be administered directly by the Swiss Confederation. The Confederation and the European Commission will coordinate to ensure that operators administered by an EEA country rather than the Confederation fulfil their obligations under the Swiss ETS.

Figure 2: Allocation of flights to the Swiss or EU ETS



2. Trading certificates from climate protection projects

The ETS based on the 'cap and trade' principle should not be confused with the trade in certificates from climate protection projects. These certificates are an instrument of the Kyoto Protocol that allows industrialised countries, with the aid of flexible mechanisms, to credit emission reductions achieved abroad to their reduction targets. The most widely used is the Clean Development Mechanism (CDM), which permits countries sponsoring climate protection projects in developing countries to earn emission reduction certificates, provided certain requirements are met. A UN agency issues the certificates retroactively for substantiated reductions and they may be traded freely.

A certificate entitles the holder to emit one tonne of CO₂-eq and may be surrendered by ETS participants (see section 1) instead of an emission allowance. However, the permitted quantity of certificates is limited both in Switzerland and in the EU. Like the EU, as of 2021 Switzerland will not admit any more certificates to its ETS. Certificates are also used by countries that have made a reduction commitment under the Kyoto Protocol, or they are acquired on a voluntary basis, for example for offsetting CO₂ from air travel.

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