The European Emissions Trading System (EU ETS) is the central steering instrument of European climate policy. It reduces greenhouse gas emissions from energy and industrial installations and from intra-European aviation in a cost-efficient way. The increasing concentration of carbon dioxide (CO_2) in the atmosphere significantly contributes to climate change. The EU ETS reduces the permissible emission caps by 38 million tonnes annually. From 2021, the reduction will be increased to 48 million tonnes. Thus, the EU ETS contributes over-proportionately to achieving the 40 % reduction target for EU greenhouse gas emissions.

Introducing EU ETS

Emissions trading in Europe was introduced into the United Nations Framework Convention on Climate Change as a result of the Kyoto Protocol. In Kyoto, the heads of state and government agreed for the first time internationally binding stabilisation and reduction targets for greenhouse gas emissions in the industrialised countries. Overall, annual emissions from the industrialised countries should be reduced by an average of 5.2 percent between 2008 and 2012 compared to 1990. The EU has committed itself to a reduction of eight percent. The European Emissions Trading System was introduced in 2005 in order to achieve this and future emission reduction targets.

Around 12,000 industrial and energy installations from 31 European countries (28 EU countries and Liechtenstein, Iceland and Norway) are currently participating in the system. Since 2012, international aviation has also been taking part (all flights which start and end within the European Economic Area). European emissions trading accounts for more than 45 % of the total greenhouse gas emissions from the European Union (EU).

In the UN Paris Climate Agreement of 2015, the participating states agreed to limit global warming to below 2 °C, and if possible, even below 1.5 °C. All states set themselves reduction targets and continuously adapt them. The EU is committed to reducing its greenhouse gas emissions by at least 40 percent by 2030 (base year = 1990). In comparison to the 2005 emissions, when the EU ETS was launched, the emissions trading sector must now achieve a 43 percent reduction and other sectors such as transport, agriculture and buildings 30 percent reduction.

The principle of emissions trading

Emissions trading works according to the „Cap and Trade“ principle. The state-imposed upper limit (cap) determines politically how much can be emitted altogether by their participants. The individual Member States allocate allowances to the participating companies in cooperation with the EU Commission – some of them free of charge, some of them through auctions. Each allowance permits the emission of one tonne of CO_2. A company must surrender allowances covering the amount of CO_2 that it has emitted annually. If their available allowances are insufficient, the company must buy additional emission allowances (for example on the stock market or from other companies that need less). An ambitious cap in terms of climate policy ensures that CO_2 becomes a scarce commodity and the trade on the stock market generates a CO_2 creates an incentive to invest more in climate protection.

28 EU Member States plus Norway, Iceland and Liechtenstein participate in emissions trading.

Around 12,000 stationary installations such as power plants, refineries and steel mills are integrated.

EU Emissions Trading in Germany

Since 2005, energy installations (with a rated thermal input above 20 megawatts) and emission intensive industries have been participating in European emissions trading by offsetting their annual CO_2 emissions with emission allowances. 1,860 fixed-location installations and around 130 aircraft operators participated in emissions trading in Germany in 2016 (as of May 2017).

The German Emissions Trading Authority (DEHSt) at the German Environment Agency is responsible for the allocation and auctioning of emission allowances and the calculation of the annual balance between actual emissions and emission allowances surrendered.

1,830 German installations emitted 438 million tonnes of carbon dioxide equivalents in 2017.

2/3 of all greenhouse gas emissions within the EU ETS stem from power and heat generation; the portion in Germany is as high as 3/4.

DEHSt

The German Emissions Trading Authority (DEHSt) is a division of the German Environment Agency. Around 170 staff at the Berlin site work closely with those companies whose installations or aircraft are subject to EU emissions trading and support the work of the verifiers who verify the data of the companies involved.

DEHSt is also the contact point for the Federal Ministry for the Environment, the states (Länder) and the responsible state pollution control authorities. Nationally and internationally, DEHSt is involved in further development of emissions trading and better integration of project-related mechanisms such as Joint Implementation (JI) and Clean Development Mechanism (CDM).

DEHSt cooperates mainly electronically with its partners. This applies to applications, allocation of allowances, account management in the registry and annual emissions reporting.

Important Steps towards EU ETS

2018 Amendment of the EU ETS Directive on the preparation of the 4th Trading Period (2021-2030) after three years of negotiations

2016 Entry into force of the Paris Climate Protection Agreement

2015 Decision to introduce the Market Stability Reserve in order to reduce the large surplus of allowances on the market.

2014 The EU Council Decision on the framework for climate and energy policy until 2030 sets a decisive framework for the reform debate of the EU ETS

2013 Start of the third trading period (2013-2020), including new activities and other greenhouse gases

Beginning of the second commitment period (2013-2020) of the Kyoto Protocol

2012 Beginning of emissions trading in aviation

Start of the European Emissions Trading Registry (Union Registry)

2011 European Commission decision on the allocation of free allowances in the third trading period

2010 First auction of emission allowances

2009 Modification of the European Union Directive for the preparation of the third trading period as part of the 2007 EU energy and climate package

2008 Beginning of the second trading period (2008-2012) with new legislation

2007 European Union summit resolves greenhouse gas reductions by 20 and 30 %, respectively, by 2020

2005 Beginning of the first European Union emissions trading period (2005-2007)

2004 National allocation plan 2005-2007 for the distribution of emission allowances in Germany; allocation act and ordinance

European Union Directive 2004/101/EC (Linking Directive) for linking emissions trading to the Kyoto project mechanisms JI and CDM

2003 Emissions Trading Directive 2003/87/EC for establishing European Union emissions trading from 2005

1997 Kyoto Protocol with reduction and stabilisation goals for 2008-2012

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