

Emissions trading – economics and climate protection

Climate change can already be felt. In Germany, too, the consequences of global warming include ever new heat records, heavy rains and floods.

We must protect the climate and reduce greenhouse gas emissions in order to limit global warming and the consequences of climate change.

The European Union introduced emissions trading in 2005 to achieve this goal. It creates incentives for companies to burn less coal and gas and thus reduce their climate-damaging emissions.

In Germany, the German Emissions Trading Authority at the German Environment Agency is responsible for this task.

Emissions trading works on the principle of “cap and trade”.

The “cap” specifies how much all participating power plants and industrial installations in the EU combined are allowed to emit – i. e. the sum of all emission allowances.

The companies must acquire these allowances on the market – either buy or bid on them at a European stock exchange, for example at the EEX Leipzig Energy Exchange. Industrial installations receive allowances according to fixed rules, some of them still free of charge.

If a company produces 100,000 tonnes of CO₂ emissions in one year, it will need the equivalent amount of allowances and will have to surrender them annually, effectively cancelling them. If it fails to do so, heavy fines are imposed.

The European Union stipulates how much and how quickly the total emissions should decrease – for example, by 43 percent between 2005 and 2030. The cap is adjusted annually to meet the target for all power plants and factories.

For example, company A has 100,000 allowances. However, it emits 120,000 tonnes of CO₂ and must therefore buy 20,000 allowances.

This is possible through “trade” -trading with allowances.

Company B also has 100,000 allowances. But thanks to forward-looking investments in climate-friendly technologies, the company only causes 50,000 tonnes of CO₂ emissions. The company can offer the allowances which it doesn't need for sale.

When the companies are engaged in trading, this creates a market price for the allowances. As the upper limit, the cap, continues to drop each year, this market price rises. This also makes it more economically attractive for companies to invest in environmentally friendly technologies – and thus to reduce their emissions.