



IN FOCUS

EUROPE: WORKING TOGETHER FOR CLEAN ENERGY



Whether it's climate change mitigation, costs or security of supply: all Member States benefit from European cooperation.



Cooperation is key to reaching the EU climate and energy targets (Source: Shutterstock/BUTENKOV ALEKSEI)

A climate-friendly energy supply that remains affordable and reliable for households and businesses – that is the goal of the German energy transition. At the same time, Germany is convinced that the energy transition can only succeed in close European cooperation. The framework for this is provided by the European Union: with the European Green Deal, the European Commission is pursuing a policy strategy that has climate action at its core. By 2030, greenhouse gas emissions are to be reduced by at least 55 % compared to 1990 levels, and by 2050 Europe is to be climate neutral (see Figure 1). The strengthened climate targets are gradually being translated into directives and regulations through the Fit for 55 package.

Furthermore, the EU's energy policy decisions are fostering cross-border cooperation. Like the other Member States, Germany benefits directly from political, economic and technical cooperation – for example, when it comes to the extension of the European electricity market.

Exchanging electricity: Europe is growing closer together

For the full potential of an integrated European electricity market to be realised, it must be physically possible to trade in electricity with other countries. Currently, the Internal Electricity Market Regulation aims to increase the utilisation of interconnectors for cross-border electricity trading to 70 % of net transmission capacity by the end of 2025.

	GREENHOUSE GAS EMISSIONS	RENEWABLE ENERGY	ENERGY EFFICIENCY
2020	-20 %	20 %	20 %
2030	≤ -55 %	≤ 40 %	≤ 32.5 %
2050	Greenhouse gas emissions neutral		

Figure 1: European framework for energy and climate policy (Source: European Commission)

Due to its geographical location at the heart of the European interconnected grid, Germany has a special role to play: the German electricity grid will have to carry more electricity in future not only for the domestic market, but also for cross-border electricity trading. In 2022, Germany exported more electricity than it imported (see Figure 2).

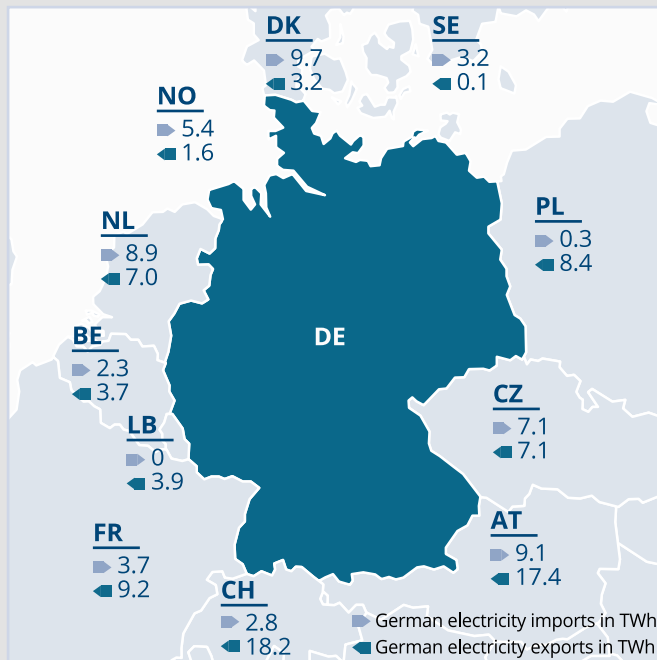


Figure 2: Cross-border trade in electricity in 2022
(Source: Guidehouse 2023 based on Fraunhofer ISE 2023)

Flexibility cuts costs and offers security

Cross-border electricity trading enables the integration of renewable energies and a cost-efficient energy supply. This is because the common internal electricity market creates flexibility by connecting producers and consumers in all regions of Europe. This makes it easier to match the intermittent supply of renewable energy with demand.

For example, wind in European regions is not always of the same strength. Some areas will have no wind at all, whilst others will generate plenty of wind energy. Coupling the national markets can offset the differences. Also, Europe as a whole will not need as much generation capacity, as peaks in demand occur at different times in different countries. All of this reduces costs and increases energy security in all Member States.

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IN BRIEF

What does the Fit for 55 package cover?

As part of the European Green Deal, in adopting the European Climate Law, the EU has set itself the binding target of achieving climate neutrality by 2050. This requires a significant reduction in greenhouse gas emissions over the coming decades. The EU has committed to reducing its emissions by at least 55 % by 2030 as an interim step on the path to climate neutrality. It is revising climate, energy and transport-specific legislation in order to meet these goals. The package also includes a number of new initiatives.

What does market coupling mean?

In physical terms, the national electricity markets have been interconnected for a long time. Market coupling ensures that the electricity markets grow closer together. Many European countries are already part of a single market area for day-ahead and intraday trading – that is, for electricity traded and supplied on the following or the same day. The advantage of this cooperation is that transmission capacities can be used more efficiently. As a result, prices become more and more closely aligned in the various countries.

Why are interconnectors needed?

Cross-border power lines (interconnectors) are needed to physically transport the increasing share of renewable electricity within Europe. Interconnectors link the transmission systems of two neighbouring countries, either underground or above ground, and thus unite the European interconnected grid.

