



IN FOCUS

# CHANGE TO COMPETITIVE AUCTIONS SUCCESSFULLY COMPLETED



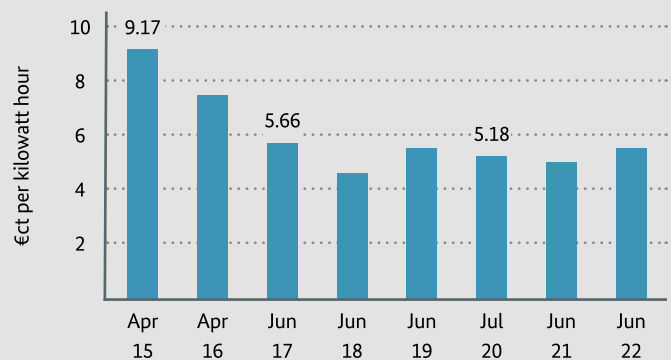
Since 2017, the German government has used auctions to steer the construction and funding for large-scale solar and wind farms.



(Source: Shutterstock/Jason Winter)

The Renewable Energy Sources Act, which was adopted in 2000, serves as the basis for the expansion of renewables and lays down rules for renewable electricity funding and feed-in. It introduced funding for these technologies based on fixed statutory feed-in tariffs – which were paid per kilowatt-hour of electricity generated. The feed-in tariff rates decreased with time, according to a degression rate. This applied particularly to solar PV installations, where the rates were reduced several times due to a considerable decrease in PV module prices.

In 2017, the amended Renewable Energy Sources Act introduced a fundamental change to the funding system, obliging larger electricity generators such as solar installations and wind farm operators to bid for funding in competitive auctions. The volume of funding put out to tender is determined in advance. It is allocated starting with the lowest priced bids until all of the capacity is auctioned off. This process ensures that the funding is awarded to the most competitive projects (see IN BRIEF).



**Figure 1: The introduction of auctions has significantly reduced the costs of funding for photovoltaics. Average winning bids for solar PV funding** (Source: BNetzA 2022)

## Falling funding rates and better control over renewables expansion

The auction system is intended to make renewable energy more economic and competitive and to foster its integration into the market. The funding rates are paid to installation operators as a floating market premium over twenty

years to better reflect the market situation. If the electricity prices on the exchange are higher than the winning bid, no funding is paid out.

The change from statutory tariffs to competitive auctions was thoroughly prepared. Following market analyses of all the technologies, a scientific project in support of the

auctions was commissioned and the key points of the auctions discussed with the relevant stakeholders. The auctions for large solar farms were tested extensively over six pilot rounds and the insights gained transferred to the other technologies. This has helped improve the bidding process.

## IN BRIEF

---

### What technologies are covered by the auctions?

The Federal Network Agency (Bundesnetzagentur) holds regular auctions for electricity from solar PV, onshore and offshore wind energy and biomass. Since June 2021, a distinction has been made between ground-mounted PV systems and installations erected on rooftops. The auction procedures only apply to large projects, i.e. to ground-mounted PV systems and onshore wind power installations from a minimum capacity of over 1,000 kilowatts (for biomass: over 151 kW). Projects from citizens' energy undertakings with capacities of up to 18,000 kilowatts (onshore wind energy) or 6,000 kilowatts (photovoltaics) are excluded from the auction procedures. Operators of smaller installations such as solar PV systems on the rooftops of one or two-family homes continue to receive the statutory feed-in tariff for every kilowatt-hour of electricity they feed into the grid. Operators generating more than 100 kW are required to market the electricity they generate directly. They then receive a floating market premium instead of the statutory feed-in tariff.

### How are the winning bids determined?

The awards are made on the basis of bids. The operators apply for the total capacity put out to tender and calculate at what subsidy level they can economically supply electricity (bid price procedure). The bids are ranked

according to the bid price until the tendered quantity is reached. The successful bidders are then remunerated as calculated in their bid (pay-as-bid principle).

### Can foreign operators bid in the auctions?

Since 2023, 20 per cent of the total capacity auctioned annually in Germany has been open to installations in other EU countries – around 3,500 MW in total. Under certain conditions, joint tenders can be issued together with other EU Member States, as long as Germany has a cooperation agreement in place with that country. In addition, the electricity markets need to be open in both directions and the installations taking part in the auctions need to be able to physically feed electricity into the German grid. In 2016, the first cross-border pilot auction for ground-mounted solar PV installations was held in Germany and Denmark. Five solar farms from Denmark were awarded funding.



### Imprint

**Publisher:**  
Federal Ministry for Economic Affairs  
and Climate Action (BMWK)  
Public Relations  
11019 Berlin  
[www.bmwk.de](http://www.bmwk.de)

**Last updated:**  
August 2023

**Design:**  
The Ad Store GmbH, 20354 Hamburg