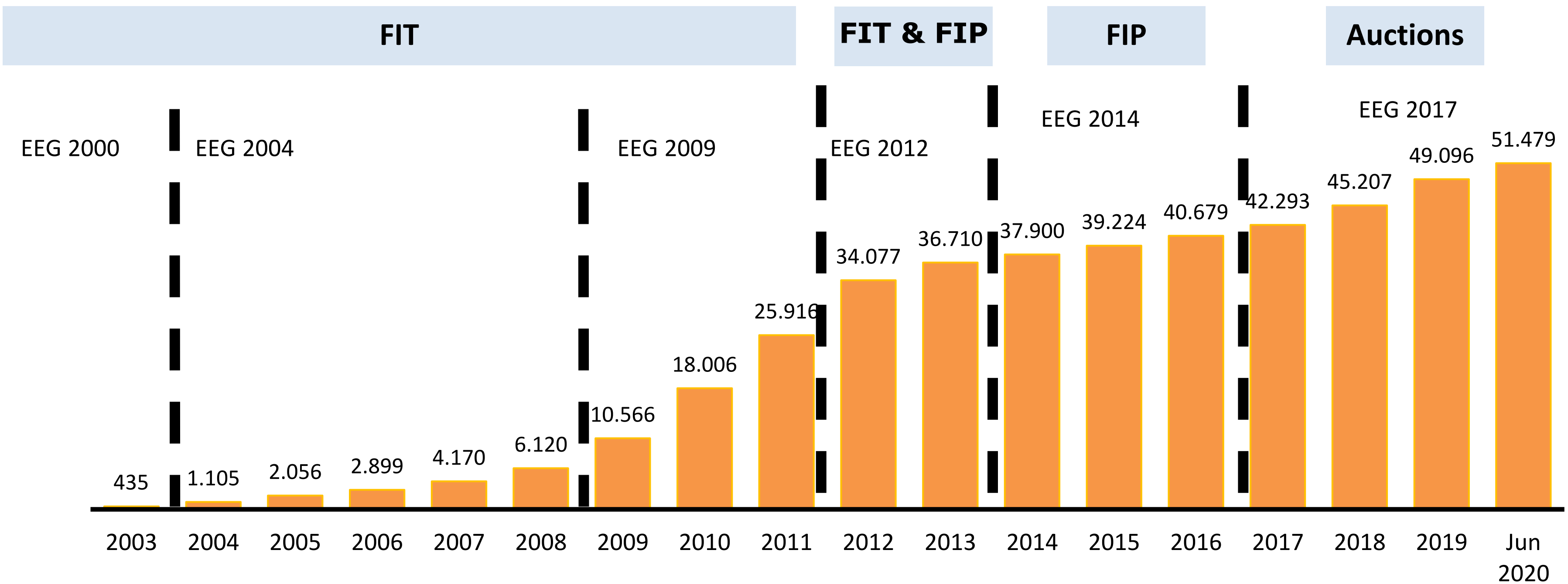
Bundesnetzagentur

The regulatory framework for PV installations in Germany

Konferenz zu Geschäftsmodellen für PV-Freiflächen: Ausschreibungen, Strukturierung der Wertschöpfungskette, Geschäftsmodelle ohne Förderung

DFBEW, Online Konferenz, 05. Mai 2021

Installed Solar Capacity [MW]

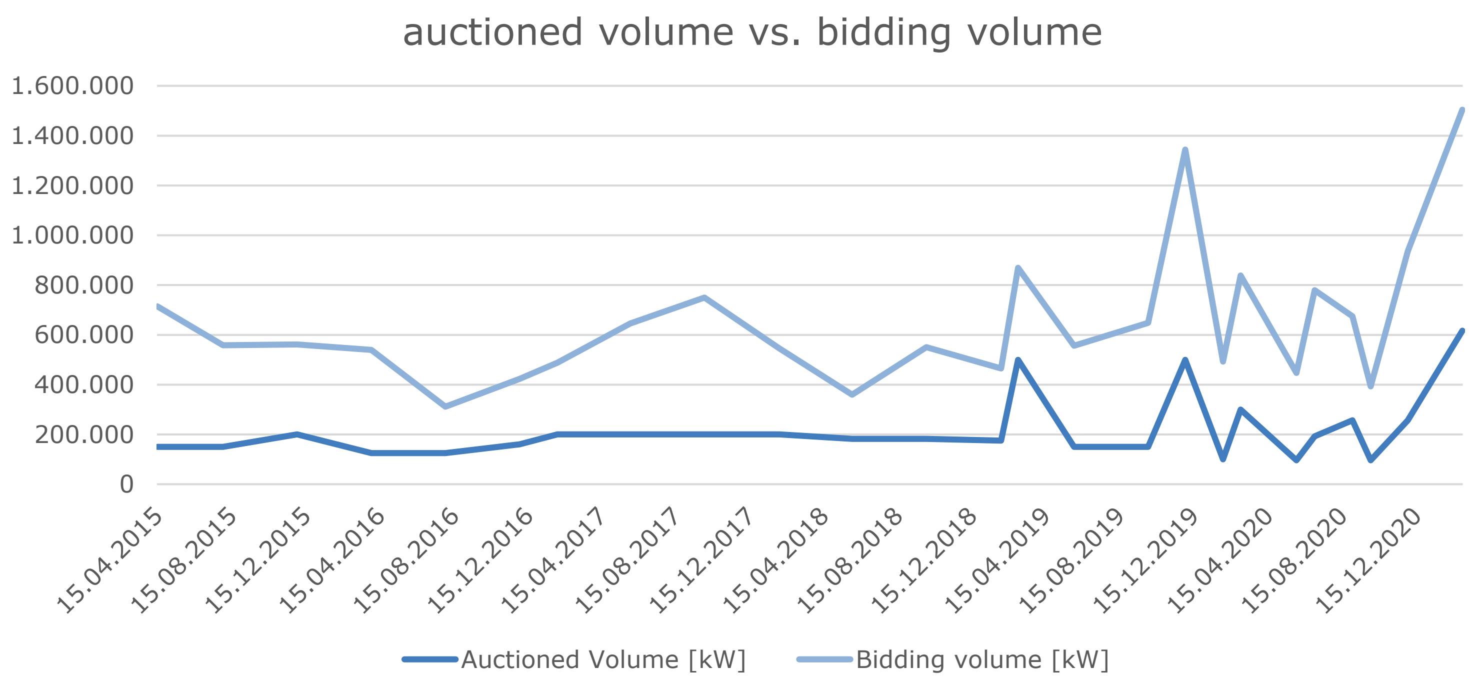


Quelle: Bundesnetzagentur

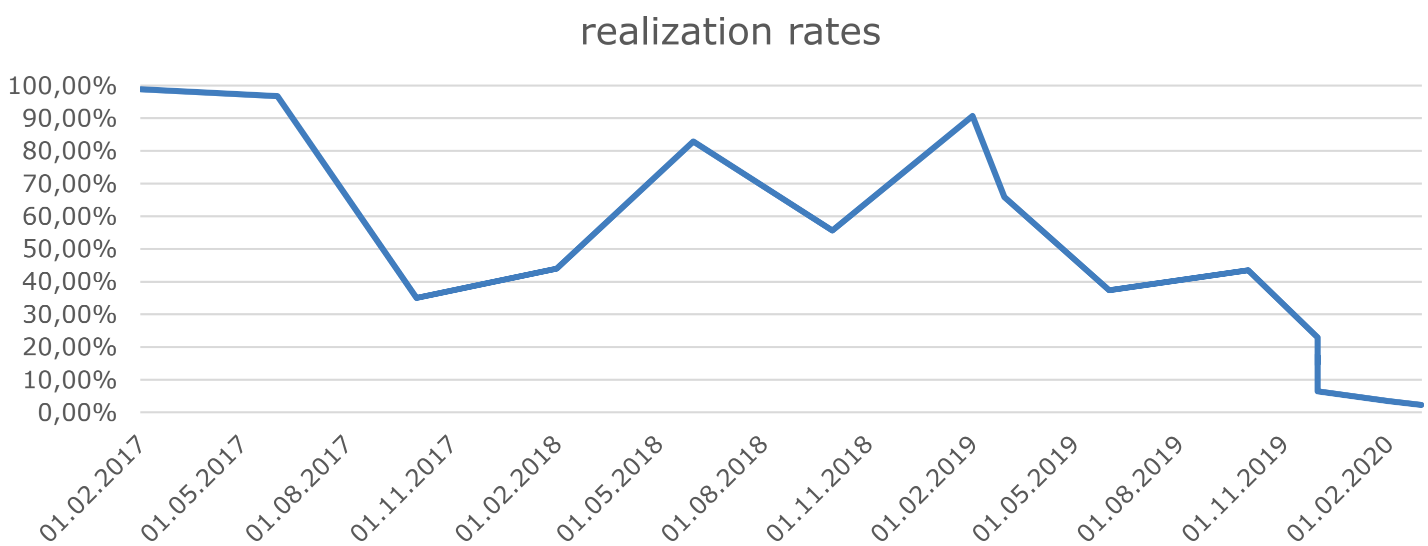
- **Permanent adaptation** of the regulatory framework.
  Since 01.01.2021 new **EEG 2021** in place

- Implemented expansion path for solar installations foresees **100 GW** installed capacity **in 2030**.

RESULTS OF THE GERMAN SOLAR TENDERS I



- All Solar specific tenders were **oversubscribed** what let us be optimistic regarding the upcoming volume increase.
- **Level of competition** strongly influence the outcome (average awarded bid price)
- Since the introduction of the PV ground mounted auctions the **design** has only been **minimally adopted** in order to reduced possible mistakes which lead to exclusions.



- **Realization rate** is a key factor to evaluate the success of an auction.
- Auction rounds with poor realization rates has been analysed and led to adaptations in the design (e.g. limitation of the maximum bid volume)
- Realization rates for all auctions **before 01. June 2018 are final** rates because realization dead lines are exited.

Technology neutral, cross boarder & innovative tenders I

Technology neutral auctions

- **Since 2018** the federal Network Agency administrated six additional **technology neutral auctions** which were open for PV and wind onshore.

- Design and results were almost the same as in the technology specific auction.

- **Real competition** between wind onshore and solar installations **did not take place**. The reason for this exceptional picture was that wind onshore installations were on the one hand more expensive and on the other hand could find better conditions in their technology specific auctions so that they were not forced to take part.

Cross Boarder Auctions with DK

- In November 2016 one single cross boarder auction with Denmark took place

- Due to an incomplete level playing field all awards went to Danish projects.

Technology neutral, cross boarder & innovative tenders II

<u>Innovative Auctions</u>

- **Since 2020** the federal Network Agency administrated two additional **innovative auctions** which were open for PV, biomass and wind onshore in combination with storage devices.

- **<u>Innovative elements</u>** of these segment are defined as:

    1. open for all RES technologies,
    2. combinations of production and flexibility at the same time and location in order to support grid stability and
    3. payment of an fixed marked premium instead of sliding market in premium

- Comparable to the technology neutral auctions **real competition** between the RES technologies **did not take place**. The reason for this exceptional picture seems to be also that the other technologies are on the one hand more expensive and on the other hand could find better conditions in their technology specific auctions so that they were not forced to take part.

EEG 2021: split up of solar tenders

- Although Roof top PV could take part under the EEG 2017 **hardly any project took part**.

PV ground mounted EEG 2017

Roof top PV

- 300 MW per year
- 9,00 ct/kWh maximum bid value
- Min. bid volume of 100 kW
- Max. bid volume of 20 MW
- Pay-as-bid
- Financial security of 70€/kW
- First auction in June 2021

PV ground mounted

- 1.850 MW per year
- 5,90 ct/kWh maximum bid value
- Min. bid volume of 751 kW
- Max. bid volume of 20 MW
- Pay-as-bid
- Max. financial security of 50 €/kW
- Less material prequalification
- 20th auction in June

Additional changes for solar projects & future challenges

- **Technology neutral auctions** as of the 2018 design were **abolished.**
- Additional volume in the **innovative auctions took over** the role of technology auctions.
- From 2022 on a new segment of 50 MW for special solar installations (Agri-PV, floating PV and carpark PV) will be integrated into the innovative auctions.
- The Federal Network Agency will publish a **consultation of the specification** of this special solar installations in June.

Die Agrophotovoltaik-Anlage in Heggelbach am Bodensee. ©BayWa r.e.

- **Sector integration, green hydrogen etc**. makes an adaptation of the expansion path in the near future probable.

- Studies **forecast** an installed solar capacity up to **385 MW** in 2045 in Germany (see page 25, https://www.agora-verkehrswende.de/fileadmin/Projekte/2021/KNDE_2045/Klimaneutrales-Deutschland-2045.pdf)

- September elections in combinations with the recent decision of the Federal Constitutional Court concerning the German climate legislation let await a **dynamic adaption** of the regulatory framework for RES technologies in the near future.

Vielen Dank et merci beaucoup.

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