

Sharp drop in new turbines

New construction of onshore wind turbines declined sharply in 2018, and even fewer turbines could be installed in 2019. There were also fewer offshore installations.

The expansion of onshore wind energy saw a massive decline in Germany in 2018. According to figures from the German Wind Energy Association (BWE) and the VDMA Power Systems mechanical engineering association, a total of 743 turbines with a total rated capacity of 2,402 megawatts (MW) were erected. This represents a minus of 55 percent compared to the record year 2017 (1,792 new turbines with 5,333 MW).

205 turbines were dismantled and 111 installed as part of a repowering process in which old turbines are replaced with new, more powerful ones. At the end of 2018, the blades of a total of 29,213 wind turbines were turning onshore in Germany, with a rated capacity of 52,931 MW. In a comparison of the federal states, Lower Saxony was once

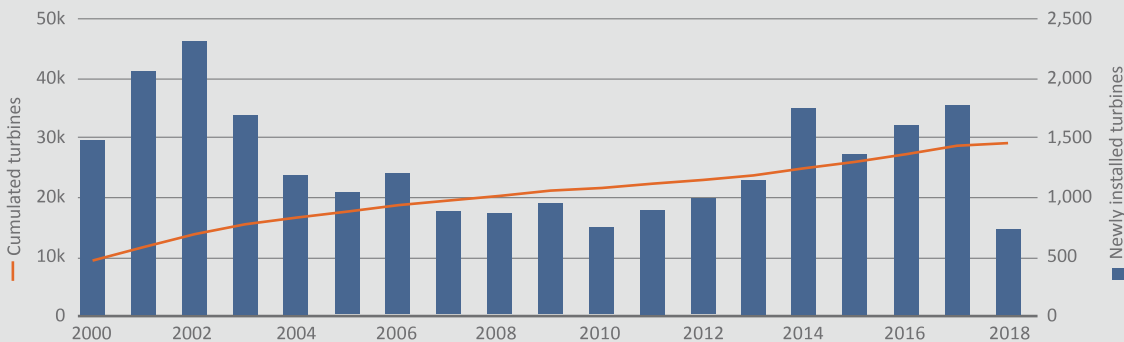
again in the lead with 206 new turbines (718 MW), followed by North Rhine-Westphalia with 106 turbines (331 MW) and Brandenburg with 91 turbines (289 MW). In the south of Germany 121 new turbines were built, most of them in Rhineland-Palatinate (66) and Baden-Württemberg (26), followed by Saarland (21) and Bavaria (8).

Offshore, 136 new wind turbines with a rated capacity of 969 MW were connected to the grid last year. To provide a sense of scale: in 2017, it was just 222 turbines with 1,250 MW. At the end of 2018, a total of 1,305 wind turbines with a total rated capacity of 6,382 MW were in operation. In addition, 46 turbines (276 MW) had already been installed but not yet connected to the grid. A further 124 foundations were prepared for turbine installation.



WIND TURBINES IN GERMANY

Wind energy expansion figures (Onshore, 2000–2018)



By the end of 2018, the total number of onshore wind turbines standing in Germany was 29,213.

Source: WindGuard GmbH

More electricity from wind energy

All onshore and offshore wind turbines produced 111 terawatt hours (TWh) of electricity in 2018, an increase of 5.5 percent over 2017 (calculated by the Fraunhofer Institute for Solar Energy Systems). Divided across the individual types of generation, this means that wind turbines supplied 87.4 TWh of clean electricity onshore and 18.8 TWh offshore. All renewable energies combined reached a value of 219 TWh, 4 percent more than in 2017. According to analyses by the Centre for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW) and

the German Association of Energy and Water Industries (BDEW), this covered 35 percent of gross electricity consumption in Germany, 2 percent more than in 2017. In the first half of 2019, the share was even 44 percent.

In 2019, the increase is expected to decline further. As reported by the Onshore Wind Energy Agency (FA Wind), only 41 wind turbines with a total rated capacity of 134 MW were erected in the first three months of the new year. “This means that the newly installed turbine capacity is almost 90 percent below the level of each of the first quarters of the

previous three years”, explains FA Wind. “The drastic slump in wind energy expansion in the first quarter of 2019 is the low point of a long-term and politically administered development, which was caused by the capping of the volume of new installations in the tendering procedure and by mismanagement in the Renewable Energy Sources Act (EEG 2017). Politicians are called upon to clarify how the lost quantities on the expansion path can be absorbed by 2030”, says Hermann Albers, President of the German Wind Energy Association.

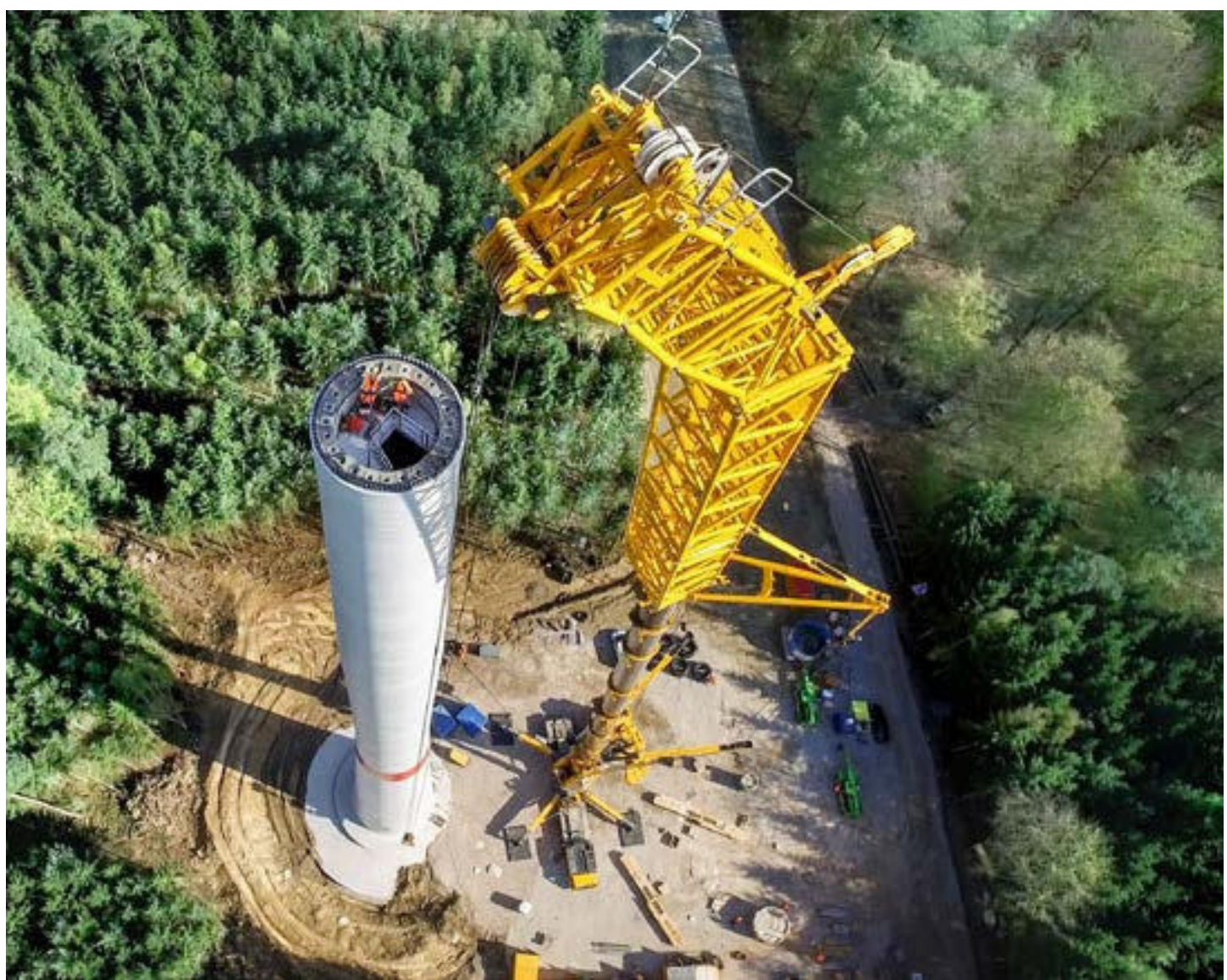


Photo: Max Bögl Wind AG, Johnstown Media