To the Media

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Statistic of the Week: Renewables Cover Nearly 43% of Germany’s Electricity Consumption

Solar, wind and other renewable energy sources have covered a growing share of the electricity consumed in Germany in recent years. While renewables accounted for 36.3 percent in 2017 and 38.2 percent in the following year, the figure for 2019 is expected to amount to nearly 43 percent. The Centre for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW) and the German Association of Energy and Water Management (BDEW) arrived at this figure for 2019 in their initial assessment.

Renewable energy sources collectively generated more than 244 billion kilowatt hours (billion kWh). Onshore wind power contributed the largest share, nearly 104 billion kWh (2018: 90.9 billion kWh), to this total in the course of a windy year. Photovoltaic systems furnished almost 45 billion kWh (2018: 44.0 billion kWh), closely followed by biomass plants, which produced close to 45 billion kWh (2018: 44.6 billion kWh). Offshore wind power again posted the steepest growth, rising nearly 25 percent to more than 24 billion kWh (2018: 19.5 billion kWh). Hydropower plants delivered 21 billion kWh (2018: 17.9 billion kWh).

The share of renewable energy sources is calculated as a percentage of gross electricity consumption, which is common practice and in line with European targets and the German government’s goals for increasing renewables’ share. Gross electricity consumption accounts for all the electrical power used in a country.

Another option would be to measure the share of renewables in gross electricity production. This is the total amount of electricity generated, including the power exported across Germany’s borders. In 2019, renewables accounted for around 40 percent of electricity generated in Germany.

One thing is clear regardless of which of the two measures serves as the basis for assessment: The campaign to build onshore wind power plants has stalled. Unless it resumes and efforts to expand photovoltaics make major strides, the share of renewables will not continue to grow at the fast rate of recent years. This lack of progress would decelerate the electrical power system’s transformation, making the target of a 65-percent share of renewables by 2030 a distant prospect. And that is why the obstacles impeding the advance of wind power, especially, need to be swiftly cleared.
About ZSW

The Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (Centre for Solar Energy and Hydrogen Research Baden-Württemberg, ZSW) is one of the leading institutes for applied research in the areas of photovoltaics, renewable fuels, battery technology, fuel cells and energy system analysis. There are currently around 260 scientists, engineers and technicians employed at ZSW's three locations in Stuttgart, Ulm and Widderstall. In addition, there are 90 research and student assistants.

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