Germany green electricity

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An ever larger share of German electricity consumption is covered by renewable energies. The figure for 2022 was at least 46 percent - a new record. But the Energy Transition not only concerns the electricity supply. It includes all areas in which energy is used - i.e. mobility and the heating of buildings as well, though other terms such as transport turnaround and heat turnaround have become established, too. There is still room for improvement here.

The increasing demand for electricity has also been taken into account. After all, when millions of e-cars are on the road, heat pumps have replaced old boilers and a lot of industrial processes have been electrified too, the demand for electricity is expected to increase by a third by the end of the decade. This is why the economical use of energy is a central pillar of the Energy Transition. As a rule of thumb: the less energy is consumed, the easier it will be to meet the climate targets.

A lot. The most important thing is to save energy - in the use of both electrical appliances and heating. It also helps to leave the car at home and go on your bike instead, for example. Anyone who is able to have their own solar system installed on the roof or attach one to the balcony. Other tips: switch to green electricity or get involved in a citizens" energy association that promotes renewable energies.

Wind energy: In the first half of 2020, wind energy continued to play a decisive role in electricity generation. It was by far the most important energy source in the German electricity mix - ahead of coal, natural gas, nuclear energy and all other renewable energy sources. Compared to the previous year, electricity generation from wind rose by around ten percent to over 73 billion kilowatt hours. Wind energy thus accounted for more than half of the renewable electricity.

Power generation by offshore wind farms rose to around 14 billion kilowatt hours (+ 18 percent) in the first half of the year, mainly due to the commissioning of new offshore wind farms in the second half of the previous year (+ 870 megawatts). In 2020, as expected, relatively little new capacity has been added (+ 213 megawatts), hence the current offshore grid connection capacities of around 7.7 gigawatts are working at full capacity.

Onshore power generation benefited from an unusually windy February. Although power generation in the remaining five months was close to or even slightly below the previous year"s figures, overall power generation rose by around nine percent (to 59 billion kilowatt hours). The addition of new wind turbines onshore in the first half of 2020 will remain roughly at the same low level as in the second half of 2019, which is well below the targeted development corridor.

Bioenergy, hydropower, geothermal energy: Almost 26 billion kilowatt hours of electric power was generated from biomass and biogenic waste in the first half of 2020. Hydroelectricity generated 11 billion kilowatt

hours, roughly the same amount as in the previous year. Geothermal energy continues to make only a marginal contribution to the electricity supply (around 0.1 billion kilowatt hours).

Renewable energy in the heating sector: The use of renewable energy sources in the heating sector depends heavily on prevailing weather conditions. For example, the relatively warm temperatures at the beginning of 2020 resulted in lower demand for heating compared with the previous year. Accordingly, the use of biomass for heating purposes in particular also declined slightly. The supply of heat from solar thermal energy rose slightly due to the sunny weather, while the supply of heat from environmental heat also rose due to the further increase in the number of electric heat pumps.

The Working Group on Renewable Energy Statistics (AGEE-Stat) works on behalf of the Federal Ministry of Economics and Energy to take stock of renewable energy use. AGEE-Stat provides regular reporting on the development of renewable energy based on the latest available statistics. In addition to monthly and quarterly reports, it also publishes an annual report for the Federal Ministry for Economic Affairs and Energy entitled "Renewable Energy Sources in Figures".