

## **Power supply in Germany in 2022: Supply reliability at a very high level**

- **In 2022, the average power interruption per customer was only 10.6 minutes.**
- **Weather-related disruptions occurred only to a minor extent**
- **Power supply in Germany remains one of the most reliable in the world in 2022**

(Berlin/Frankfurt a. M. Sept. 14, 2023) The power supply in Germany was particularly reliable in 2022: Consumers had to go without power for an average of only 10.6 minutes last year. This is the result of the new fault and availability statistics of the Forum Netztechnik/Netzbetrieb within VDE (VDE FNN). In 2021, customers were without power for an average of 12.1 minutes. Only in 2020 was the average power interruption duration, also known as unavailability, even shorter, at 10.2 minutes. Overall, the power supply in Germany remains one of the most reliable in the world.

Extreme weather conditions were exceptionally rare last year, so that disruptions to the power supply caused by them occurred only to a minor extent. Disruptions due to force majeure, such as those caused by extreme weather, are factored out of the average power interruption duration and recorded separately. Unavailability due to force majeure only amounted to 3.0 minutes in 2022. In contrast, 2021 was characterized by severe flooding in western and southwestern Germany. The power interruption duration due to force majeure or extreme weather conditions was therefore 9.2 minutes.

### **Conversion of the energy system to renewable energies: Grid operation becomes more demanding**

The expansion of renewable energy continues to have no discernible impact on supply reliability in 2022. However, there has been an increase in the number of situations in which power grid operators have had to intervene to ensure the priority of renewable energy.

System stability is a crucial basis for a secure and reliable power supply. Due to the conversion of the energy system to renewable energies, grid utilization is increasing and the effort required to maintain grid and system security continues to rise. At the same time, grid expansion is being delayed. In the future, more intelligence and flexibility in the system, for example in the form of controllable consumption devices in the low voltage, should provide a remedy. In addition, this will make grid expansion more efficient and accelerate the energy, transport and heating transformation.

### **VDE FNN fault and availability statistics**

The VDE FNN disturbance and availability statistics show how the quality of the power supply in Germany is developing. The statistics, which are published annually, are based on voluntary information provided by network operators on disturbances and availability of electricity. The data represent around 75 percent of the German power grid and cover all voltage levels. Further information on the key figures of the statistics is available on the [VDE FNN website](#) (German version). The detailed VDE FNN Fault and Availability Statistics 2022 will be available for purchase in November 2023.

#### **About VDE FNN:**

The Network Technology and Operation Forum within VDE (VDE FNN) develops the electricity grids with foresight. The aim is to ensure reliable system operation at all times with 80 percent renewable energies. VDE FNN makes innovative technologies practicable and provides answers to the grid technology challenges of tomorrow. Here, various specialist groups with different interests work together on solutions. Its members are over 470 manufacturers, grid operators, suppliers, system operators, authorities, and scientific institutions.

For more information, visit [www.vde.com/fnn](http://www.vde.com/fnn)

#### **About VDE:**

VDE, one of the largest technology organizations in Europe, has been regarded as a synonym for innovation and technological progress for more than 130 years. VDE is the only organization in the world that combines science, standardization, testing, certification, and application consulting under one umbrella. The VDE mark has been synonymous with the highest safety standards and consumer protection for more than 100 years.

Our passion is the advancement of technology, the next generation of engineers and technologists, and lifelong learning and career development “on the job”. Within the VDE network more than 2,000 employees at over 60 locations worldwide, more than 100,000 honorary experts, and around 1,500 companies are dedicated to ensuring a future worth living: networked, digital, electrical. Shaping the e-dialistic future.

The VDE (VDE Association for Electrical, Electronic & Information Technologies) is headquartered in Frankfurt am Main. For more information, visit [www.vde.com](http://www.vde.com)

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