

# Energy Security

**MISCONCEPTION:** “Due to the energy transition, Germany can no longer guarantee energy security. Blackouts occur frequently.”

**The facts:** In 2023, renewables covered approx. 51.8 % of Germany's gross electricity consumption in 2023. Nevertheless, hardly any other country in the world has fewer power outages than Germany. In 2022, the annual average outage duration per customer stood at 12.2 minutes. Regional fluctuations in renewables can be offset by European grid integration, demand-side response, the flexibilisation of fossil power plants and other measures. Studies with projections for future periods show that security of supply would be guaranteed in Germany even in rare cases when neither solar nor wind energy is being produced.

# Energy Poverty

**MISCONCEPTION:** “The energy transition has caused an increase in energy poverty in Germany.”

**The facts:** Energy poverty is less of a problem in Germany than in most European countries: In 2022, 6.6% of the population was in arrears with their energy bills. Despite increased global energy prices in connection with the Russian war of aggression in Ukraine, this share remains well below the EU average of 9.3%.

## Imprint

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# Blackouts due to the energy transition?

## Misconceptions about the German energy transition explained



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## Electricity Prices

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***MISCONCEPTION: "Electricity bills increased significantly due to the energy transition."***

**The facts:** In the early years of Germany's energy transition high investments in renewables were necessary and high feed-in tariffs were guaranteed for 20 years to refinance these investments. Until the end of 2022, the costs of renewable energies and grid expansion in Germany were covered by consumers via surcharges which were part of the electricity price. Although German households pay one of the highest electricity prices per kWh within the group of industrialized countries, their electricity bills are not significantly higher than in those industrialized countries with low electricity prices - thanks to the successful implementation of efficiency measures and energy saving behaviour.

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## Public Acceptance

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***MISCONCEPTION: "There is a lack of acceptance for the energy transition amongst the German population."***

**The facts:** According to a survey carried out in 2021 as part of the Kopernikus project Ariadne, 88.5% of Germans support the energy transition in full or at least in part. Nevertheless, some projects face resistance at the local level, e.g. with regards to onshore wind projects and grid expansion. Studies show that local acceptance is increased by financial participation of citizens and involved communities. Further, numerous examples have shown that a participative and transparent process including all relevant stakeholders will increase acceptance and trust among citizens.

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## Economy and Employment

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***MISCONCEPTION: "The energy transition has made the German economy less competitive."***

**The facts:** Energy-intensive industries pay a reduced renewable energy levy and therefore a significantly lower electricity price. German companies are also supported by the Federal Government in implementing energy efficiency measures. This is a significant contribution to ensuring the competitiveness of the German industry.

***MISCONCEPTION: "The German energy transition has caused net job losses."***

**The facts:** In 2022, the renewable energy sector employed 387,700 people in Germany. This positive employment trend is not limited to Germany: worldwide there were 13.7 million people employed in the renewable energy sector in 2022. Although there are inevitably job losses associated with the decommissioning of conventional power stations, the overall net employment effects of the energy transition are positive. For example, the approx. 20,000 workers in the German lignite industry affected by the coal phase-out will receive retraining measures to facilitate their transition into new jobs. These will be created, for instance, in the renewable energy field. The government will invest 40 bln EUR to facilitate structural change in the affected regions. This includes employment policy measures.



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## Nuclear Phase-Out

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In 2011, Germany decided to phase out nuclear energy in response to the nuclear disaster in Fukushima. There are compelling reasons for this decision: the unsolved question of how and where to safely dispose of and store radioactive waste, and the high health and environmental risks and high (societal and economic) costs associated with nuclear energy. The nuclear phase-out was completed in April 2023.

***MISCONCEPTION: "The German nuclear phase-out led to power system instability, increased burning of coal and higher CO2 emissions."***

**The facts:** Since the first nuclear power plants were shut down in March 2011, the annual CO<sub>2</sub> emissions in Germany have gradually decreased. The nuclear share in power generation (around 23% in 2010) was replaced by the increase in renewable energies. Despite the shutdown of the last nuclear power plants in April 2023, wholesale electricity prices fell over the course of the year. In the same year, the share of power generation from conventional fuels reached a new low point with 44%, compared to 56% from renewable sources. During the energy crisis in 2022 to 2023 triggered by the Russian war of aggression against Ukraine, even companies running nuclear facilities argued against their prolonged usage due to a lack of economic and practical viability.

### Info box: Reduction of CO<sub>2</sub> emissions

The German government estimates that around 250 million tonnes of CO<sub>2</sub> emissions in 2023 were saved by **renewables** alone. Electricity generation from renewables accounted for the largest contribution to emission reduction. To further reduce CO<sub>2</sub> emissions, the **coal phase-out** was anchored in law in 2020 and will be completed by 2038 at the latest. Additionally, the government adopted a comprehensive **climate change mitigation program** in 2019 that includes a wide range of sector-specific measures to generate emission savings.