Energy Policy in Germany

Based on information from the German Ministry for Economic Affairs and Energy (BMWE)

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The energy transition triad combines efficiency, direct use of renewables and sector coupling

Energy efficiency

Renewable electricity

Sector coupling through electrification and green H_2

Source: Guidehouse based on BMWK 2023
Pictures: Freepik & Unsplash

Germany adopts ambitious climate measures to achieve climate neutrality by 2045

Energy efficiency & renewable energies

Energy Efficiency Act (EnEfG)
Reduction of end user energy by 26.5% & primary energy consumption by 39.3 % until 2030 compared to 2008.

Renewable Energy Act (EEG)
80% renewable electricity consumption by 2030, almost 100% by 2035.

Considering all sectors

Heat Planning Act (WPG)
By 2030, 50% of total heat is to be generated in a climate-neutral way.

Building Energy Act (GEG)
New buildings may only consume 55% of the primary energy demand of a reference building.

Hydrogen Strategy
10 GW electrolyzer capacity by 2030 & 1.5-3.0 Mio t H2 import by 2030.

Power grid & stations

Power Grid Expansion
Grid Expansion Acceleration Act (NABEG), Federal Requirements Plan Act (BBPlG), and Energy Industry Act (EnWG) accelerate planning a power grid ready for a sustainable future

CO_2-Price & incentives to decarbonize

Carbon Contracts for Difference (CCfDs)
offset additional costs of climate-friendly production technologies.

National ETS
National carbon price for the transport and heat sector. (Currently 55€/ton).

Source: GIZ based on EnEfG 2023, EEG 2024, WPG 2023, GEG 2023, Fedeal Government 2024, and BMWK 2024

Germany aims to increase energy efficiency through a variety of policy instruments

Energy Efficiency Strategy 2050: Plan to reduce primary energy consumption by 50% by 2050 compared to 2008 levels (across sectors).

Regulations

Building Energy Act (GEG) establishes stringent energy efficiency standards for new and existing buildings

Energy Efficiency Act (EnEfG) binding energy efficiency targets for industries and the public sector

EU Ecodesign: energy labels and ecodesign improve product efficiency

Incentives

Federal Support of Efficient Buildings (KfW) – low-interest loans, grants, bonuses

Federal Support for Energy Efficiency in the Commercial Sector (KfW) – low interest loans, grants, bonuses

E-Mobility incentives: tax benefits, privileged use of public spaces

Market-based instruments

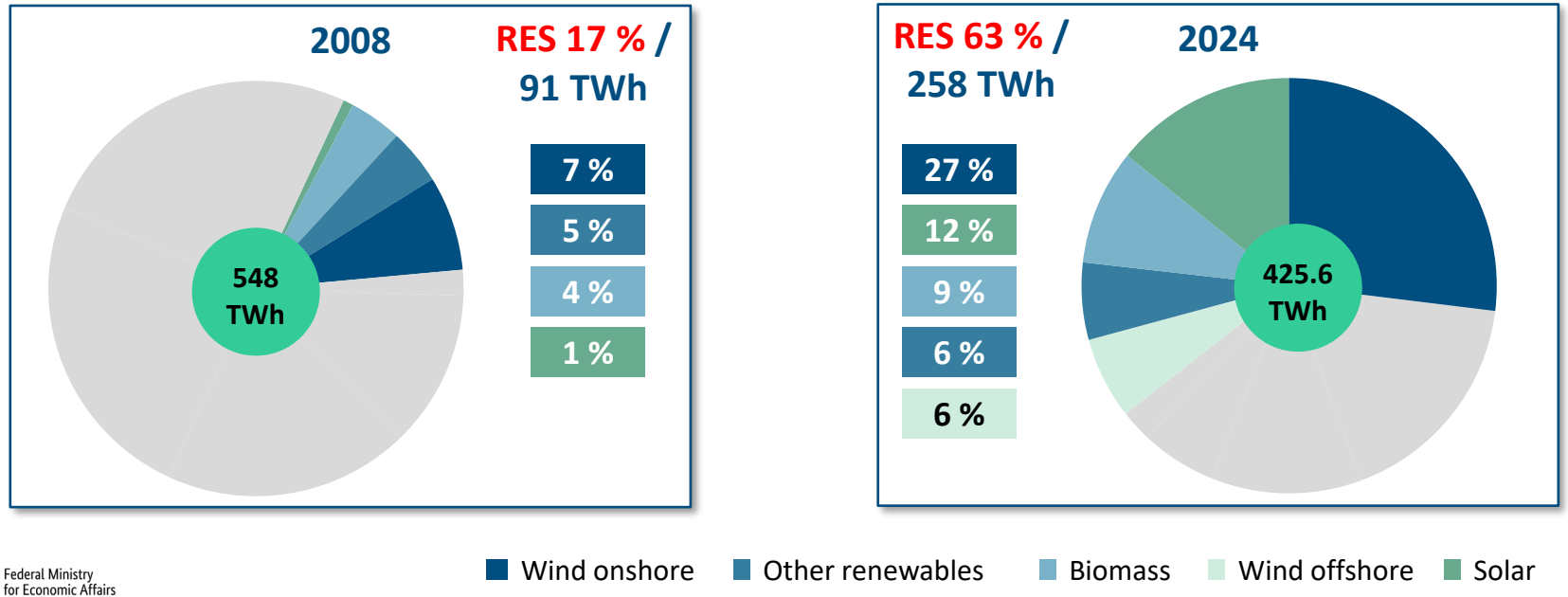
EU-ETS: cap on total emissions from energy-intensive sectors

National ETS introduced in 2021 to complement EU ETS, covering CO2 emissions from fuel combustion in buildings and transport

Source: GIZ based on BMWK 2019 & 2024, DEHSt 2024, KfW n.d., BSWAG 2024, EmoG 2013, Federal Government 2024

Wind and solar drive the transformation of Germany's electricity production

Share of renewables on electricity production



Source: GIZ based on Fraunhofer ISE 2025

Federal Ministry for Economic Affairs and Energy

Since 2022 Germany has introduced numerous reforms to facilitate the deployment of PV and wind

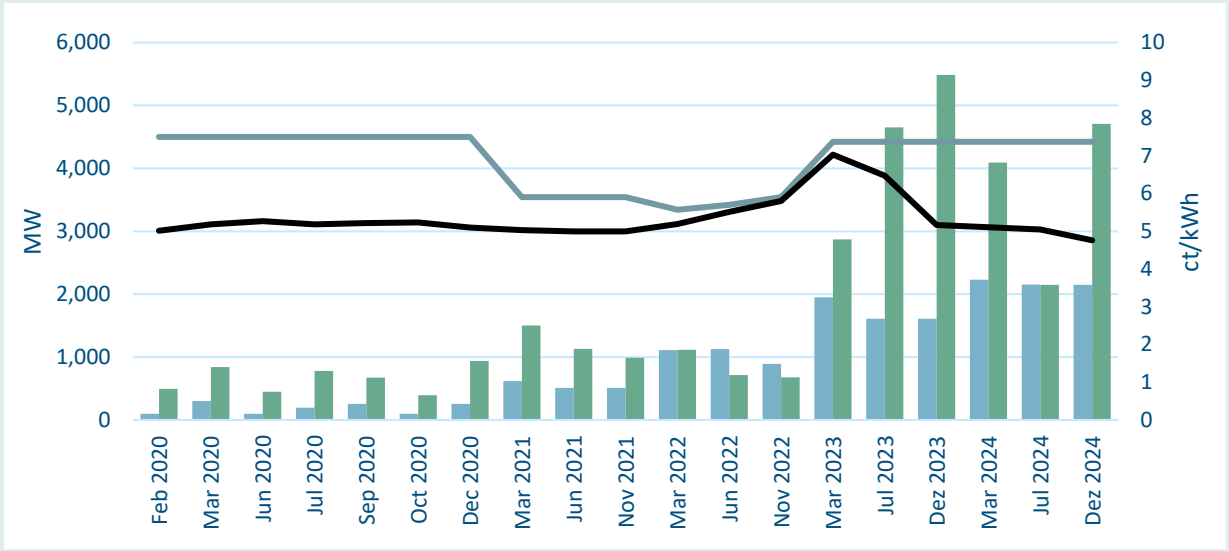
PV	Wind onshore	Wind offshore
Acceleration of planning and approval procedures		
Financial participation of municipalities in solar and wind projects		
New Solar-PV strategy with concrete measures to accelerate the expansion of solar power.	Reserving 2% of Germany's land mass for onshore wind by 2032	Increased areas for new offshore wind farms with a new, dynamic process
Introduction of a separate tendering segment for Agri-PV, parking lot PV, floating PV and moorland PV.	Simplified permission procedure to speed up approvals	

Source: GIZ based on BMWK 2022, UBA 2023, Bundesregierung 2024; Icons: flaticon.com

Federal Ministry for Economic Affairs and Energy

The introduction of auctions substantially decreased the support cost for solar PV in open space

Auction results for solar PV in open space



Since 2023 the tender rounds were **heavily oversubscribed** despite increasing tender volume

The average bid price falls again below 5 ct/kWh.

Source: GIZ based on BNetzA 2025

Germany is working with a growing number of countries to support the global energy transition

- Climate and ***Energy Partnerships*** (EPs), ***Energy Dialogues***, and Hydrogen Partnerships are the Federal Government's most important instrument for continuously **exchanging views on energy policy** and economic issues, as well as advances in the energy transition with partner countries worldwide.
- **Key issues** include the expansion of renewables, increasing energy efficiency, the development of decarbonisation technologies and markets, and the system integration of renewable energies. Finding better solutions to all these issues pays off economically for both sides, speeds up the global energy transition, and – thanks to ***growing sales markets – makes them cheaper***.
- **Tunisia** is an important partner in this dialogue, exchange and economic cooperation.