

B2G "Explorando opciones para un Smart Grid"

Welcome words – How to bring 100% RE into the grid

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The Energiewende is Germany's long-term energy and climate strategy

| | | 2022 | 2030 | 2040 | 2045 | 2050 |
|----------------------|--|----------------------|------|-----------|----------------|-------------|
| Climate | Greenhouse gas emission (vs. 1990) | -40.4% | -65% | -88% | GHG neutral | GHG sink |
| Renewable Energy | Gross electricity consumption | 46.2% | 80% | | | |
| | Gross final energy consumption | 20.4% | 30% | 45% | | 60% |
| Energy Efficiency | Primary energy consumption (vs. 2008) | -15.2% (2021) | -30% | | | -50% |
| | Final energy productivity (vs. 2008) | 1.4% p.a. (2008-20) | | +2.1% p.a | ı. (2008-205) | 0) |
| | Primary energy demand in buildings (vs. 2008) | -23.6% (2019) | - | | | -80% |
| | Final energy consumption in transport (vs. 2005) | -11.4% (2020) | - | | | -40% |



Germany adopts ambitious climate measures to achieve climate neutrality by 2045



Renewable Energy Act

80% renewable electricity consumption by 2030, almost 100% by 2035.



Wind power

2% of Germany's national land territory will be reserved for wind power. (2022: 0.5%).



Electricity prices

Renewable energy levy will be financed through general state budget.



Solar PV

Target increased to 215 GW by 2030 (2022: 67.4 GW).



Carbon Contracts for Difference (CCfDs)

Preparatory procedure was launched in June 2023.



Heating Strategy

By 2030, 50% of total heat is to be generated in a climate-neutral way.



Energy Efficiency

From 2025, all new buildings are to comply with Efficiency House 40 standard

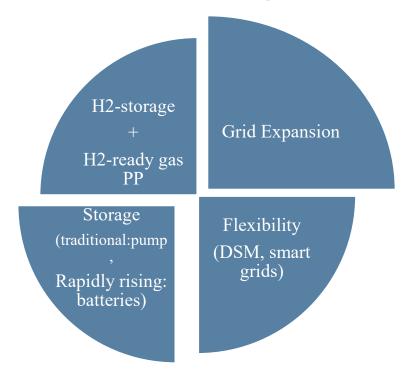


Hydrogen

Germany will increase the target for electrolysers to 10 GW by 2030.



Bringing 100 % RE into the grid





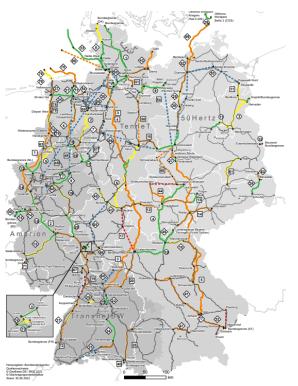
The planned grid expansion enables the integration of renewables at a low cost



119 grid expansion projects

- 14,044 km of priority lines planned
- 37 federal projects (7,499 km)
- 2,29 km realized
- 1,178 km approved
- In operation
- Approved or in construction
- Project pending/undergoing planning approval procedure
- Project undergoing regional planning procedure or federal planning procedure
- --- Project not yet undergoing approval procedure

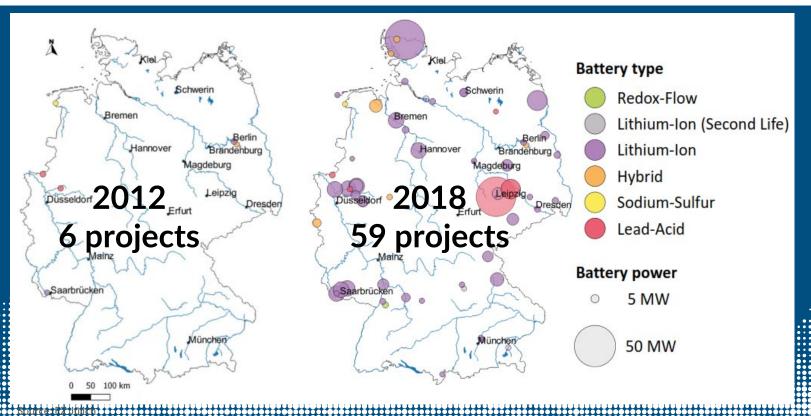






Bundesministerium In the power sector, large-scale battery systems for the provision of primary control capacity are booming

Locations of stationary battery storage systems in Germany



No. of Batteries in the power sector in Germany

