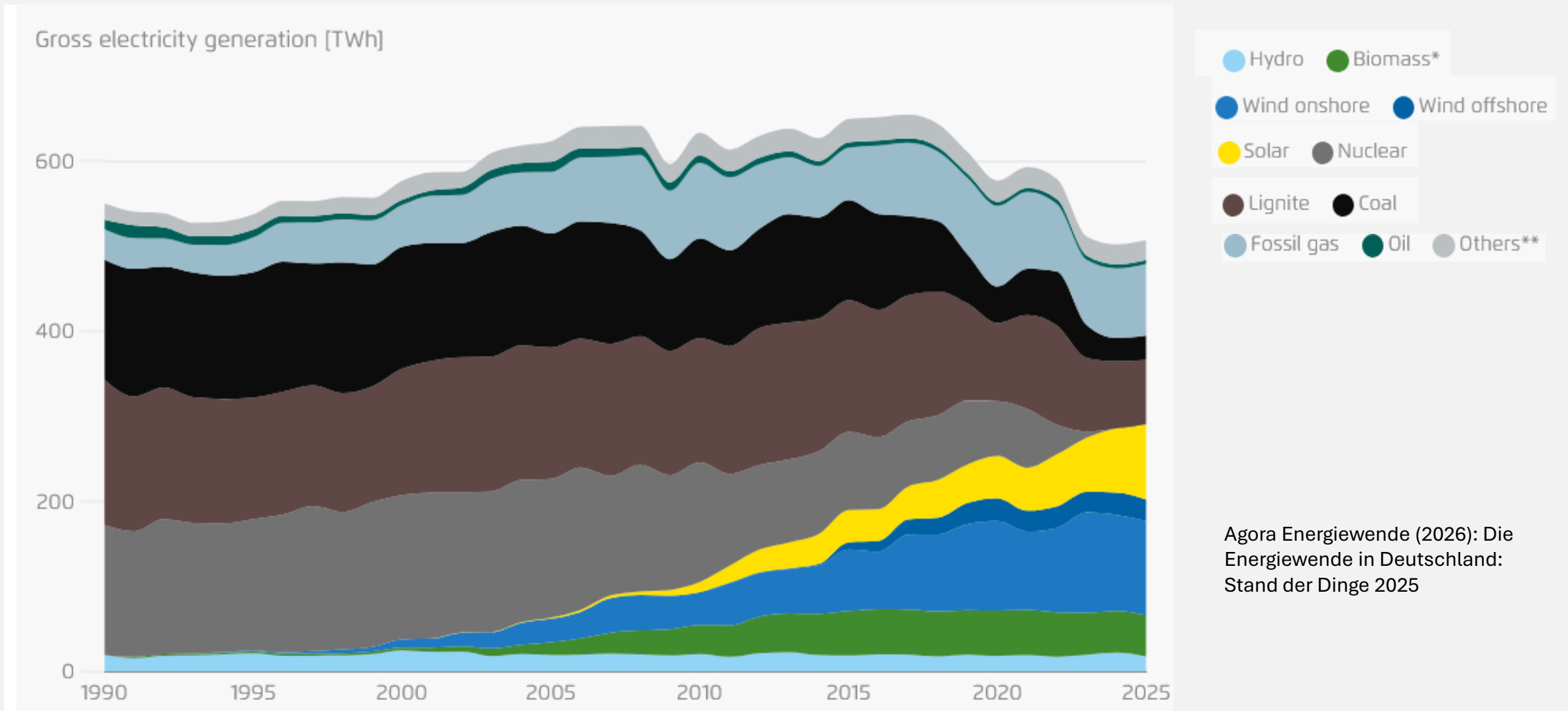


Energy Transition in Germany: State of Affairs 2025 and Outlook

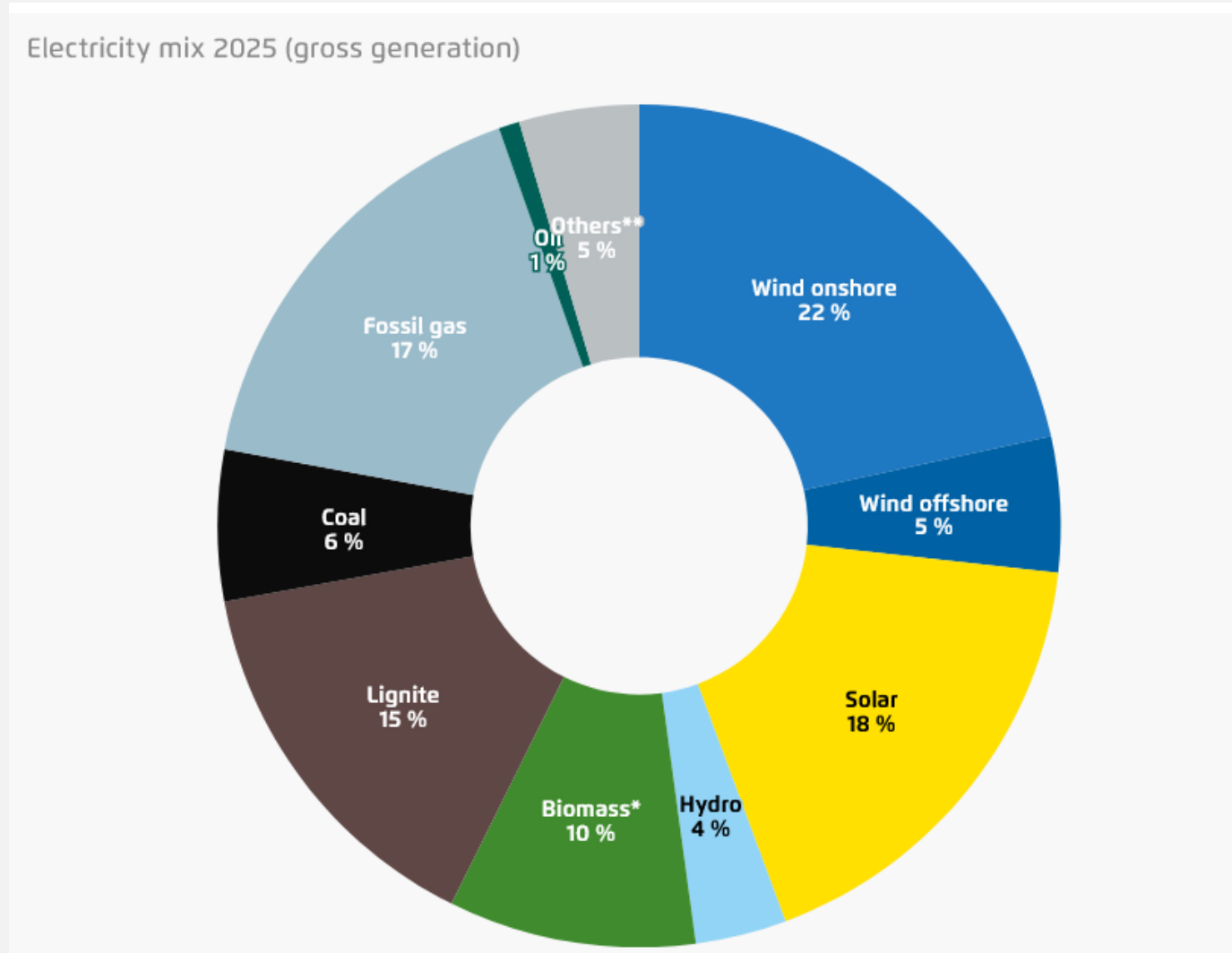
REvision2026, 11 March 2026

Dr Patrick Graichen
Climate and Energy Strategies Consultant,
Former German State Secretary for Climate and Energy

Where do we stand today? Renewables in the Power Sector have steadily increased...

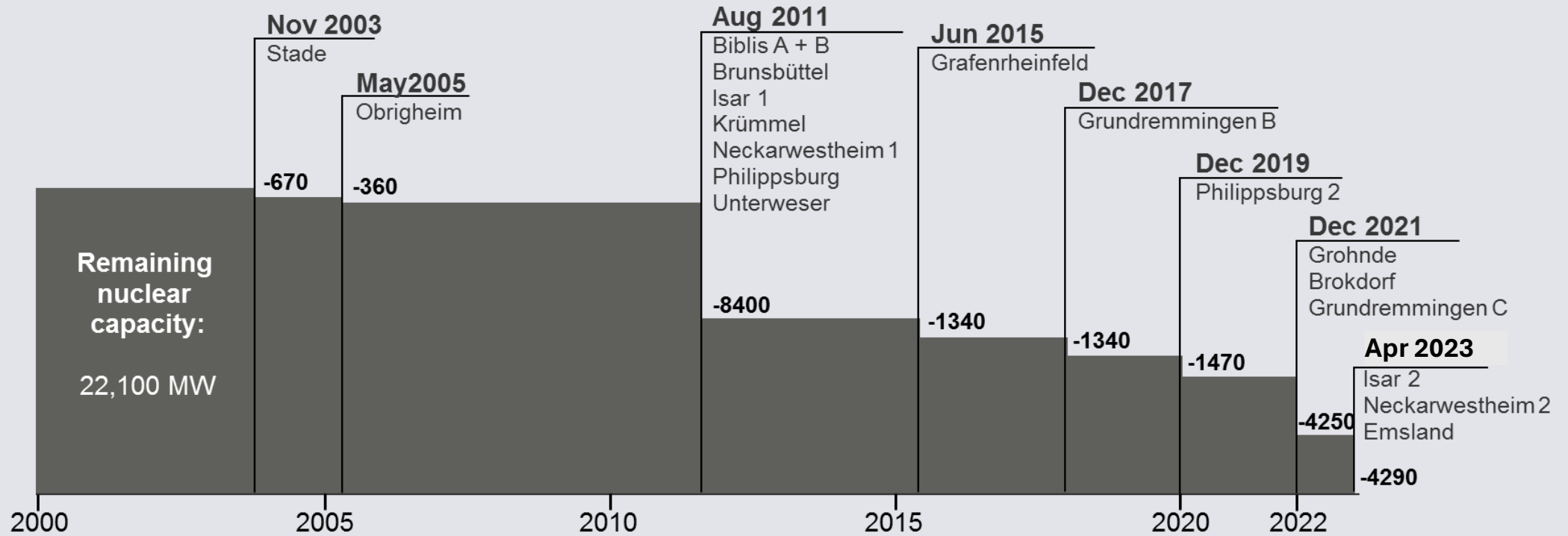


...covering now 58% of Germany's power mix



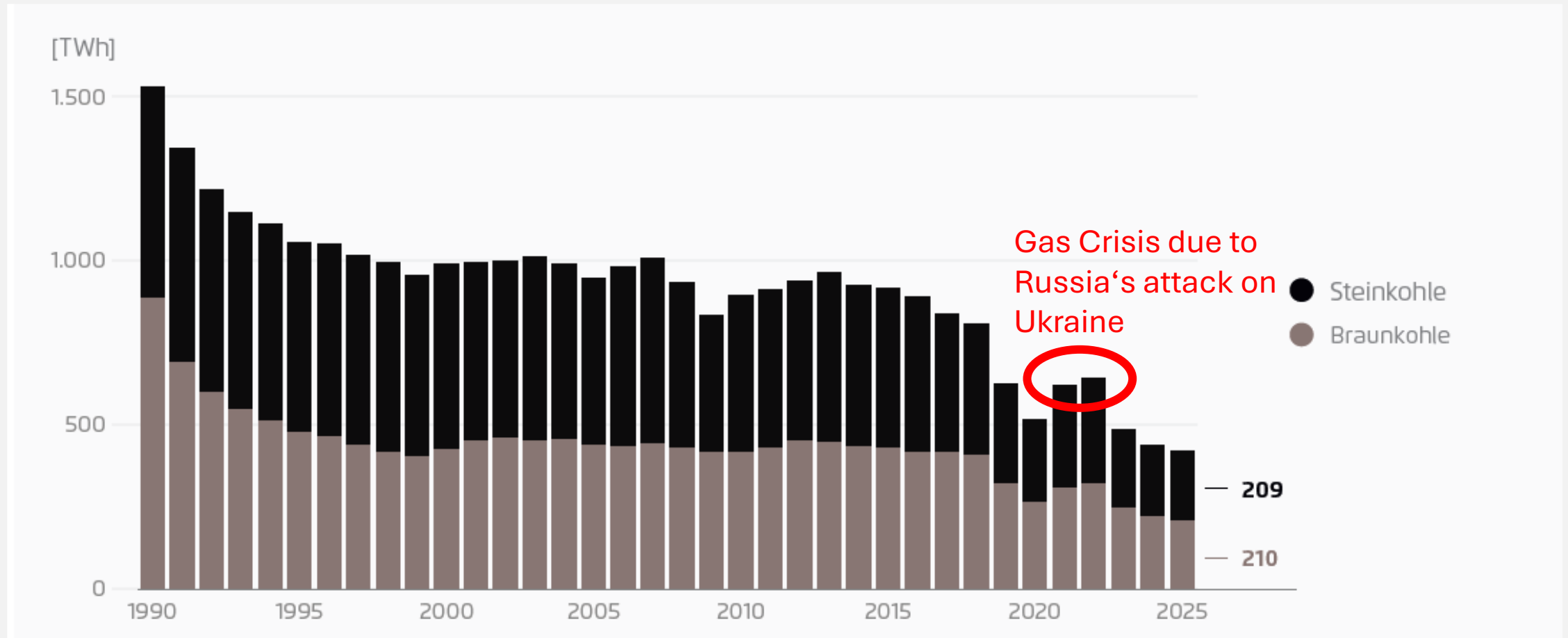
After long political fights, nuclear was phased out in 2023

Agreed shut down of nuclear power plants according to nuclear phase out law 2000 - 2023

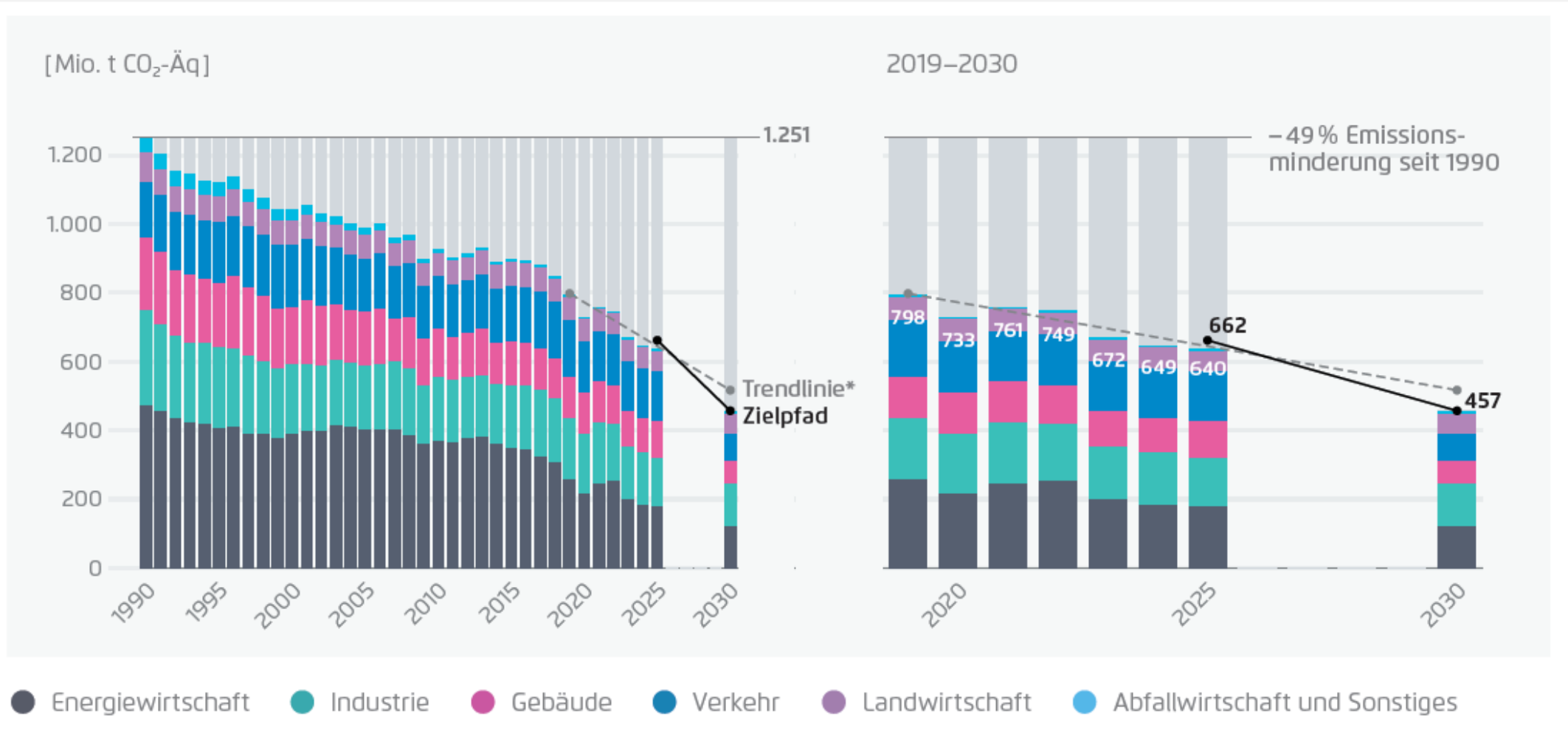


Agora Energiewende, adapted for 2023.

Coal use has also steadily decreased – with the exception of the energy crisis

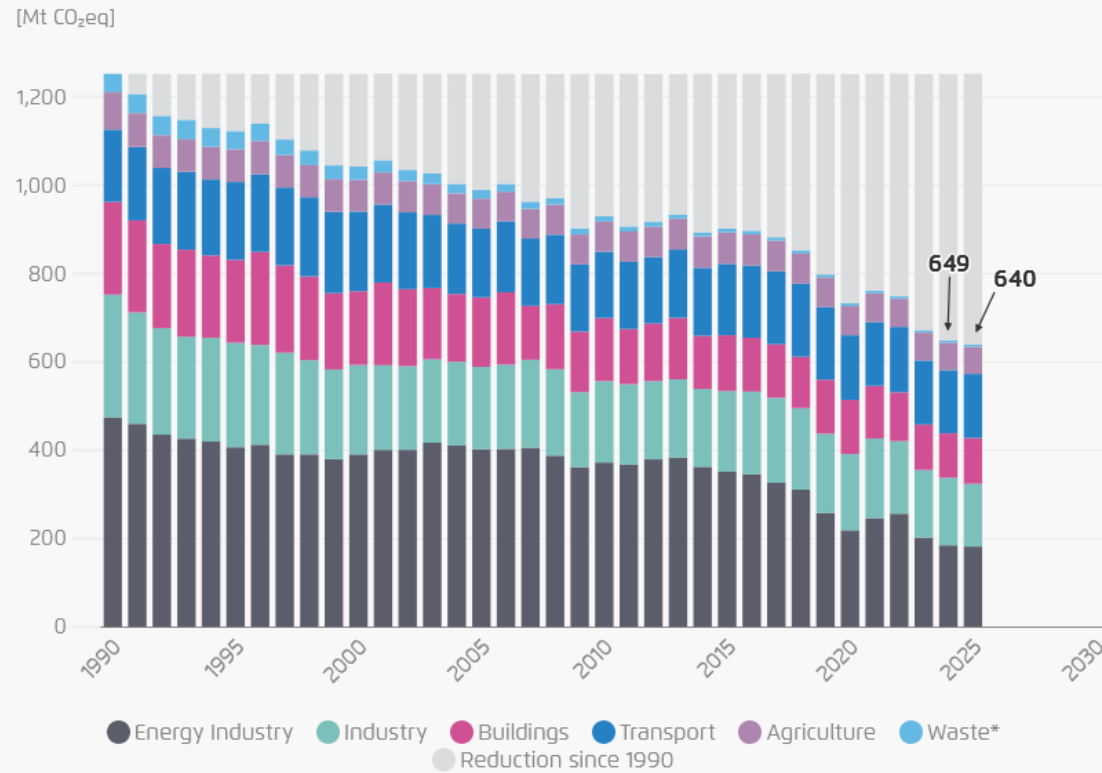


Greenhouse gas emissions have been going down – they are now 49% below 1990 levels



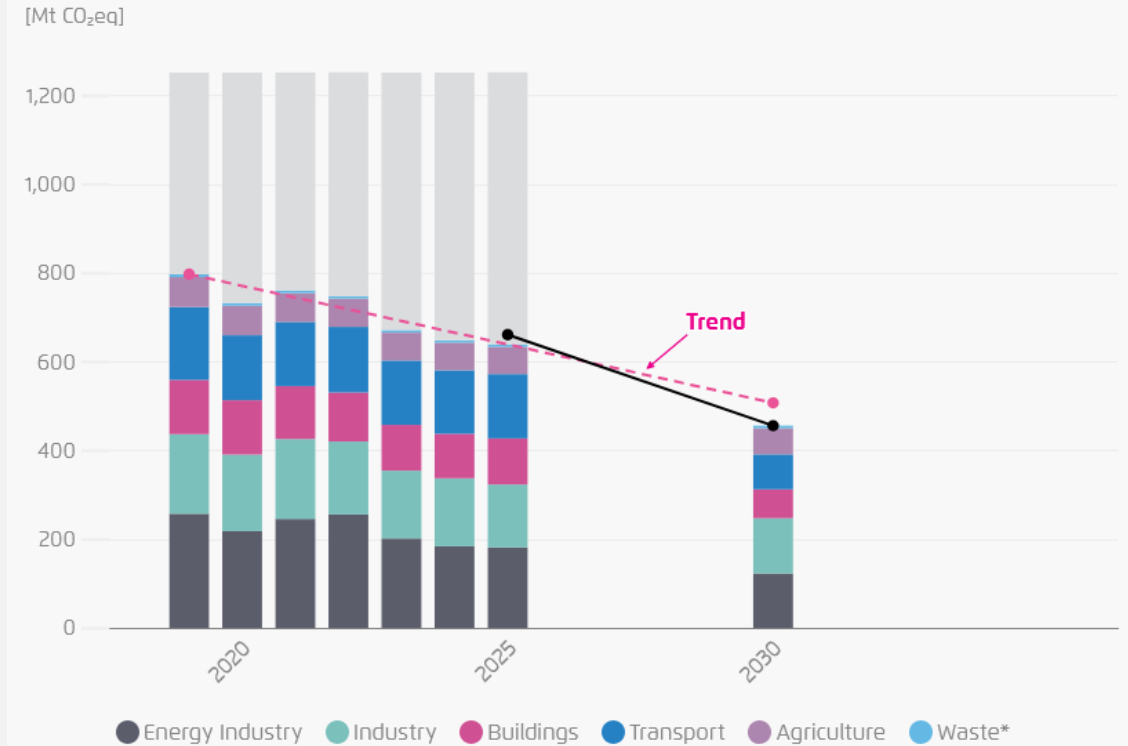
Greenhouse gas emissions have been going down – they are now 49% below 1990 levels

Development of greenhouse gas emissions, 1990–2025



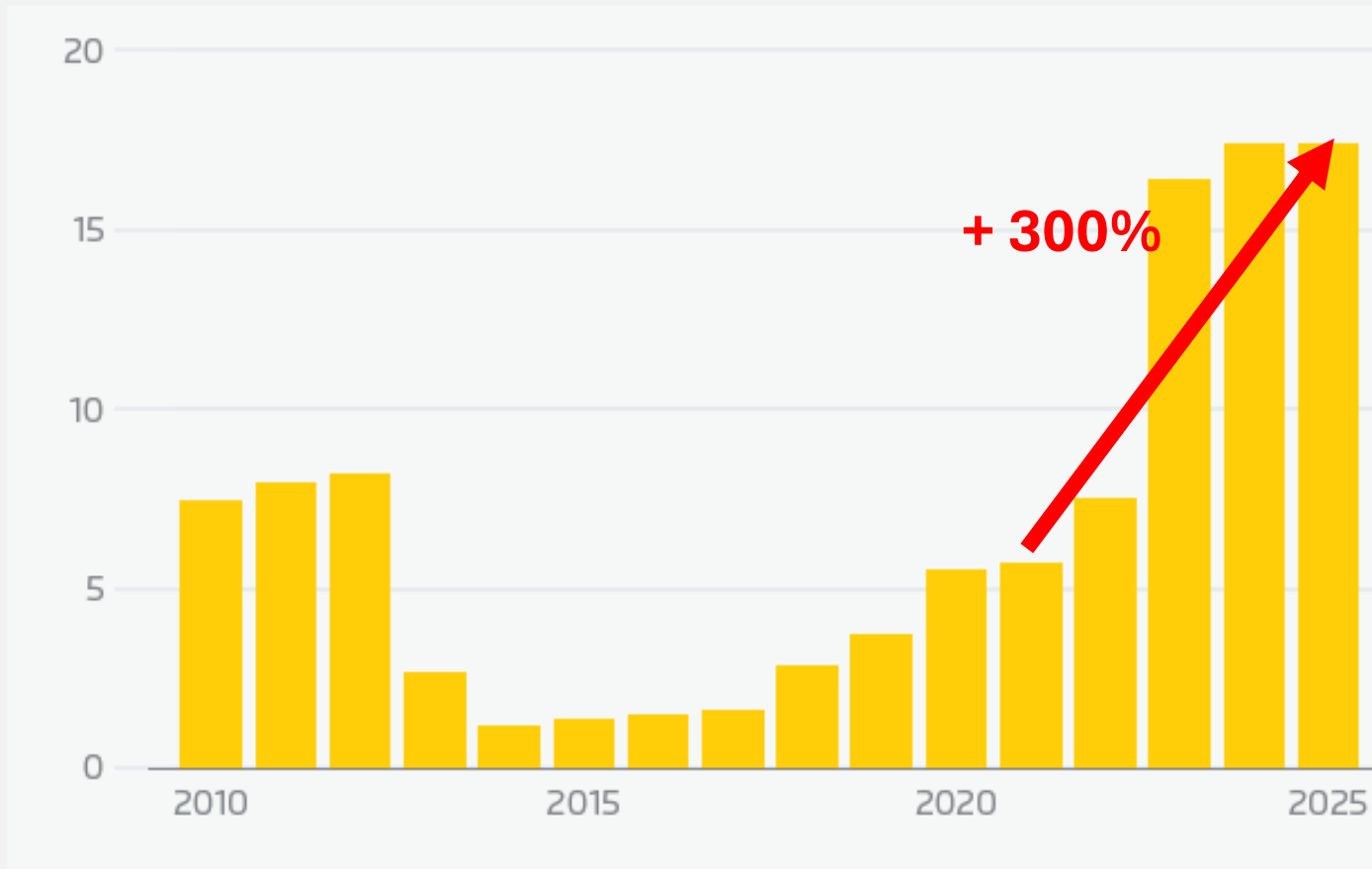
Agora Energiewende (2026): Die Energiewende in Deutschland: Stand der Dinge 2025, [Abb. 1.2](#) • *and others

Development of greenhouse gas emissions, 2019–2025

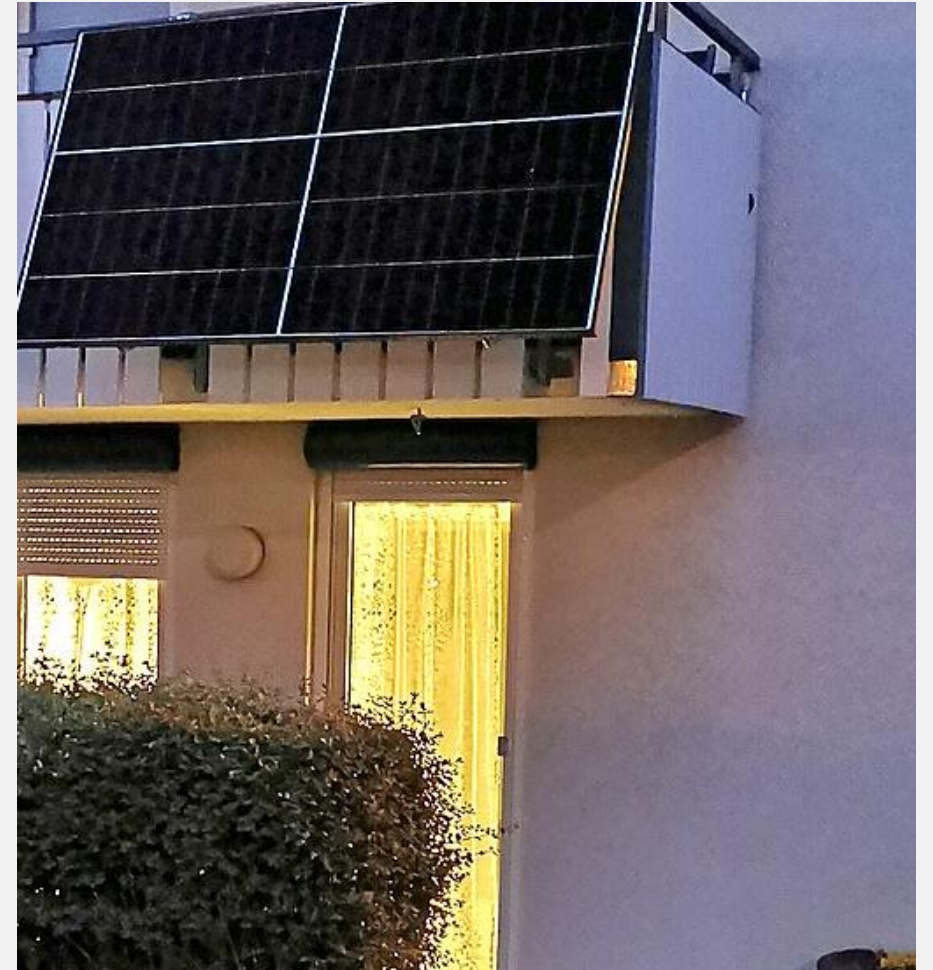


Agora Energiewende (2026): Die Energiewende in Deutschland: Stand der Dinge 2025, [Abb. 1.2](#) • *and others. Target path derived from the Climate Protection Act. Trendline: Average reduction rate over the last 6 years.

Recent developments: Solar is booming

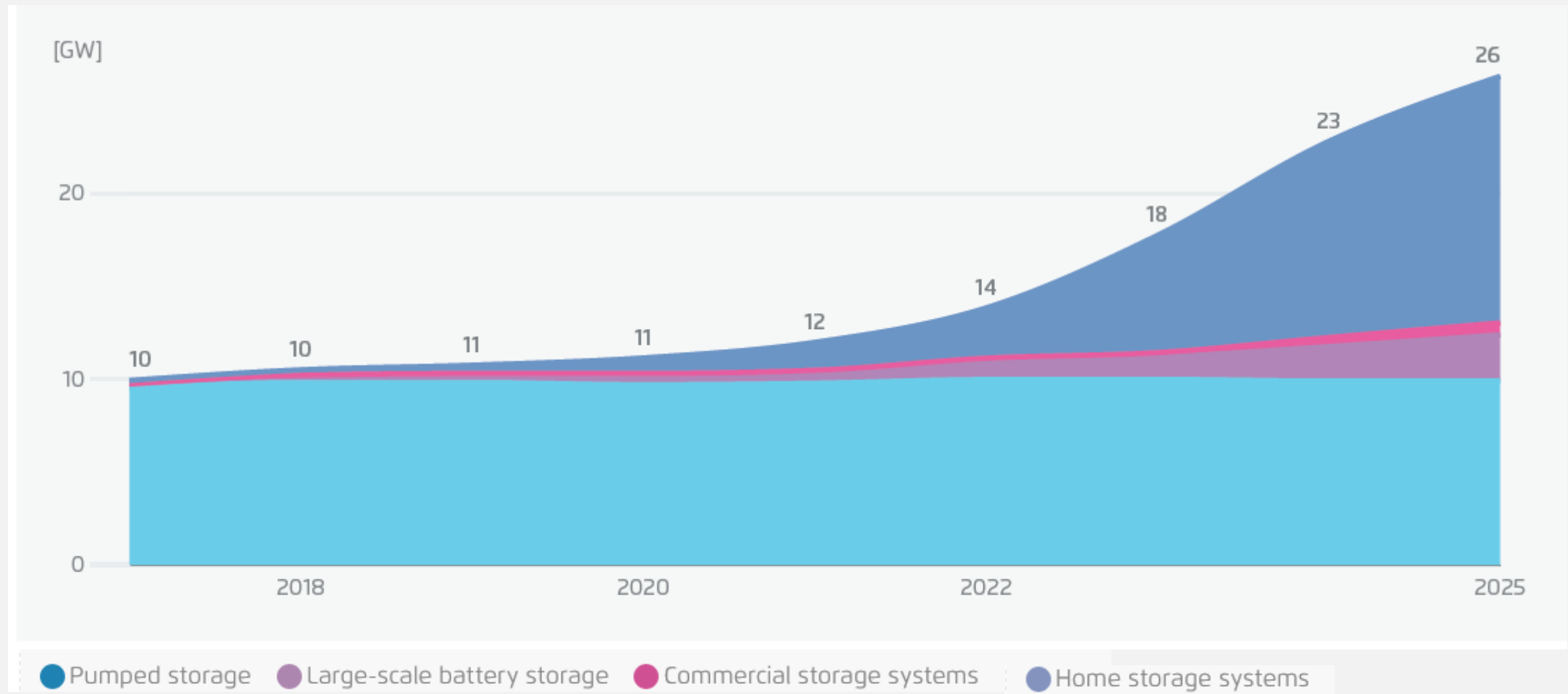


Agora Energiewende (2026): Die Energiewende in Deutschland: Stand der Dinge 2025, [Abb. 4_10](#)

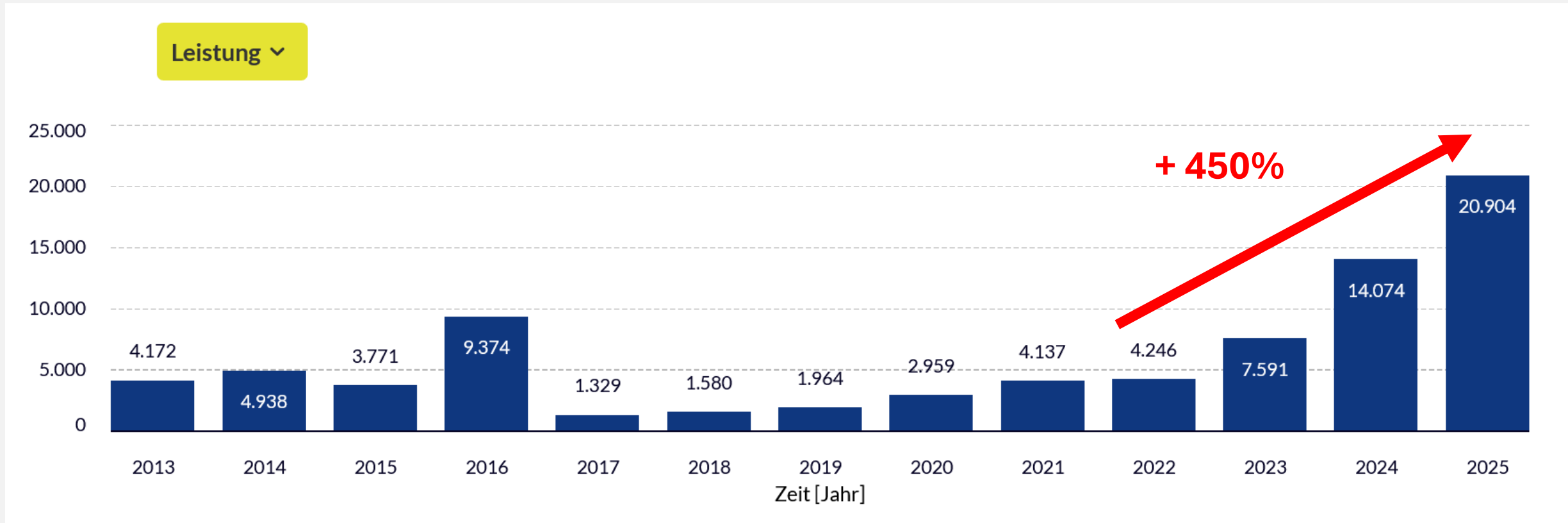


<https://commons.wikimedia.org/w/index.php?curid=135797512>,

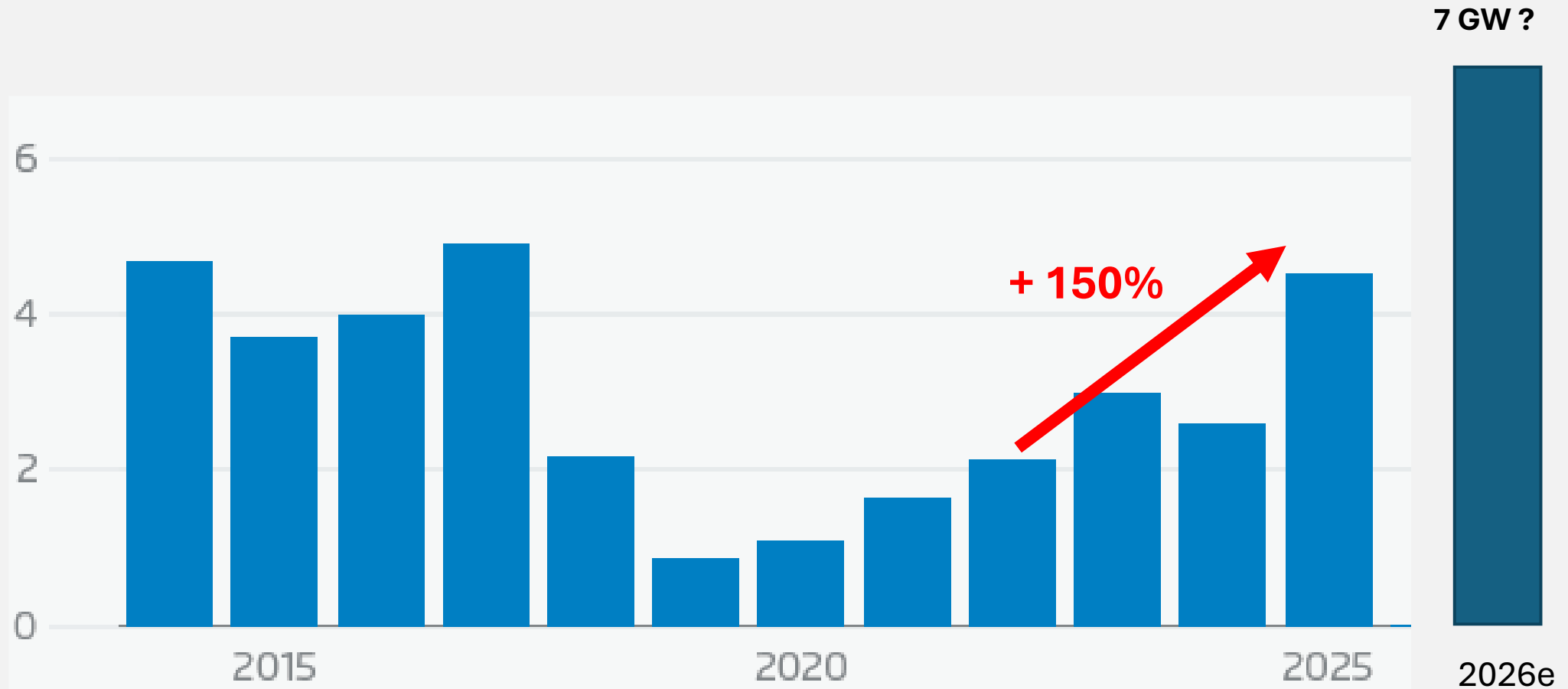
Rooftop-Solar is now almost always matched with storage



Wind permitting has been accelerated...

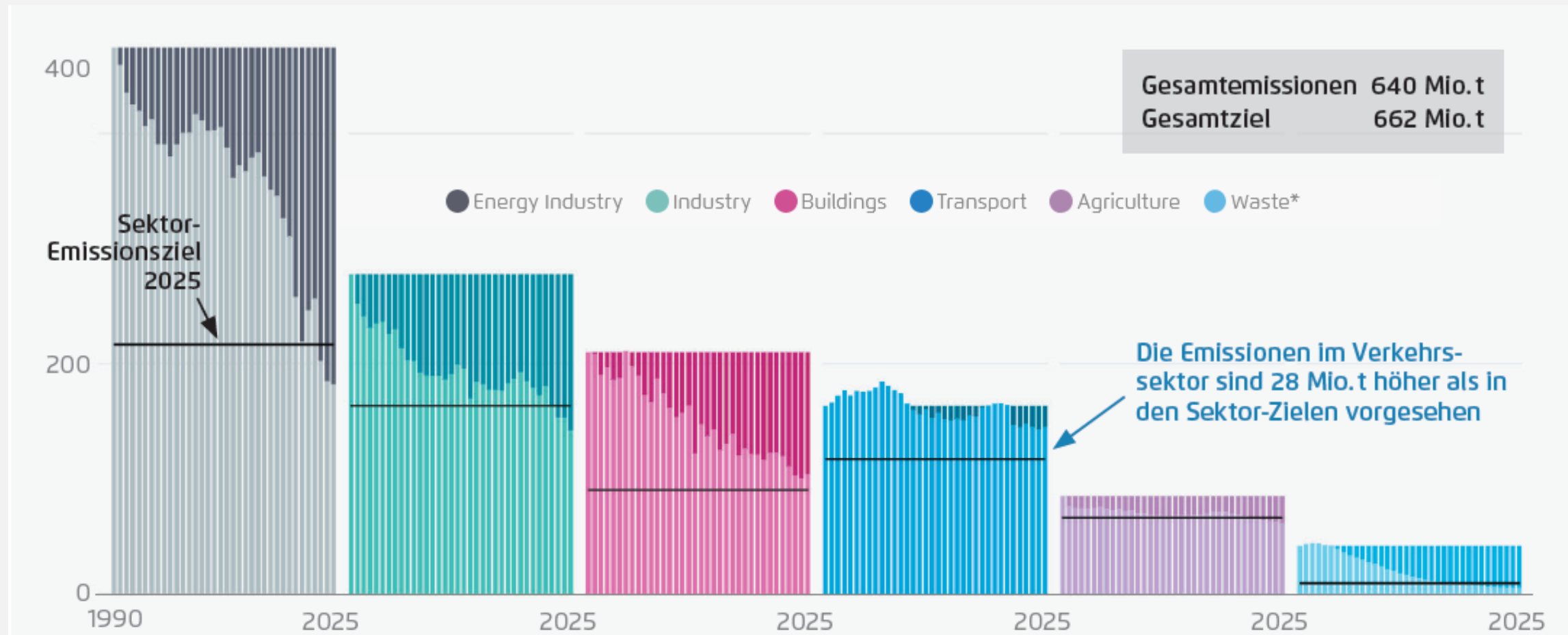


and we will hopefully now see wind power surging.



Agora Energiewende (2026): Die Energiewende in Deutschland: Stand der Dinge 2025, [Abb. 4_13](#)

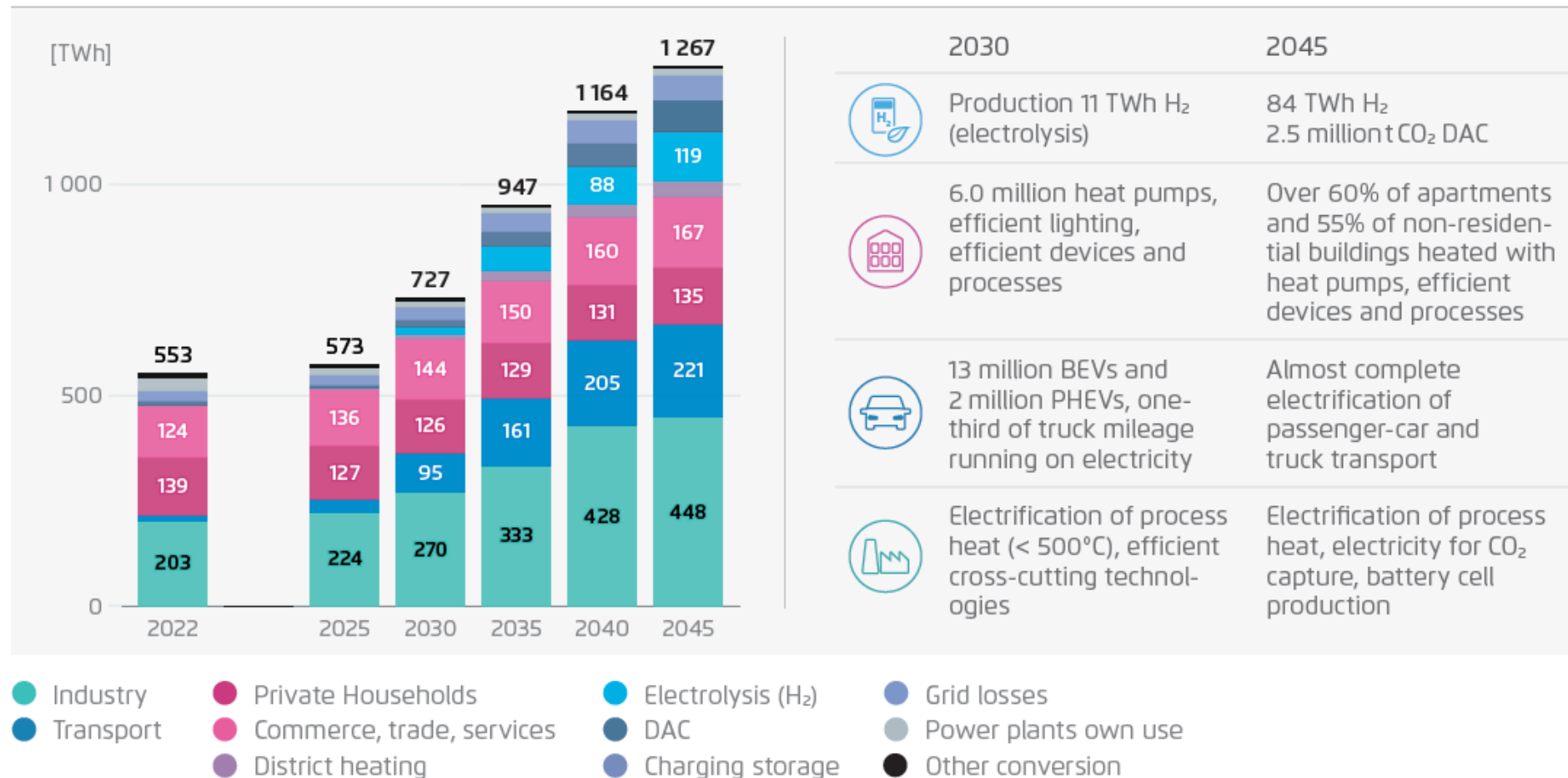
But the success in other sectors is not close to the one of the energy sector



To become climate neutral by 2045, it is all about speed and scale on RES & electrification

Electricity demand by sector

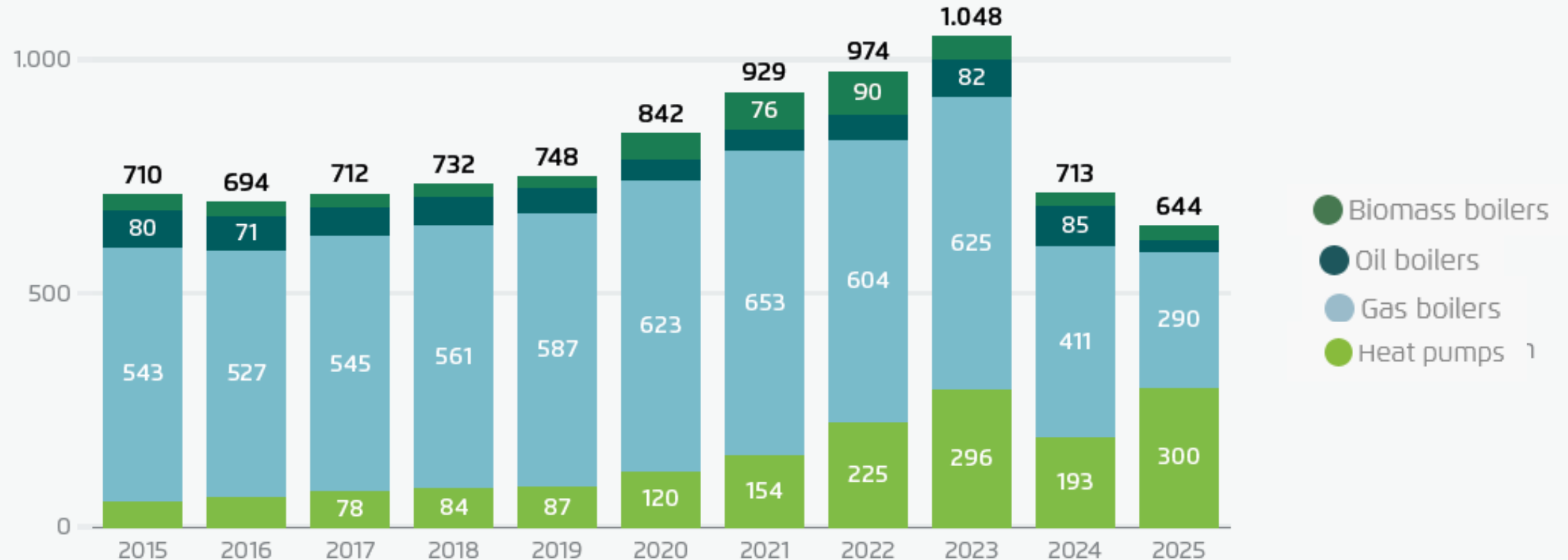
→ Fig. 11



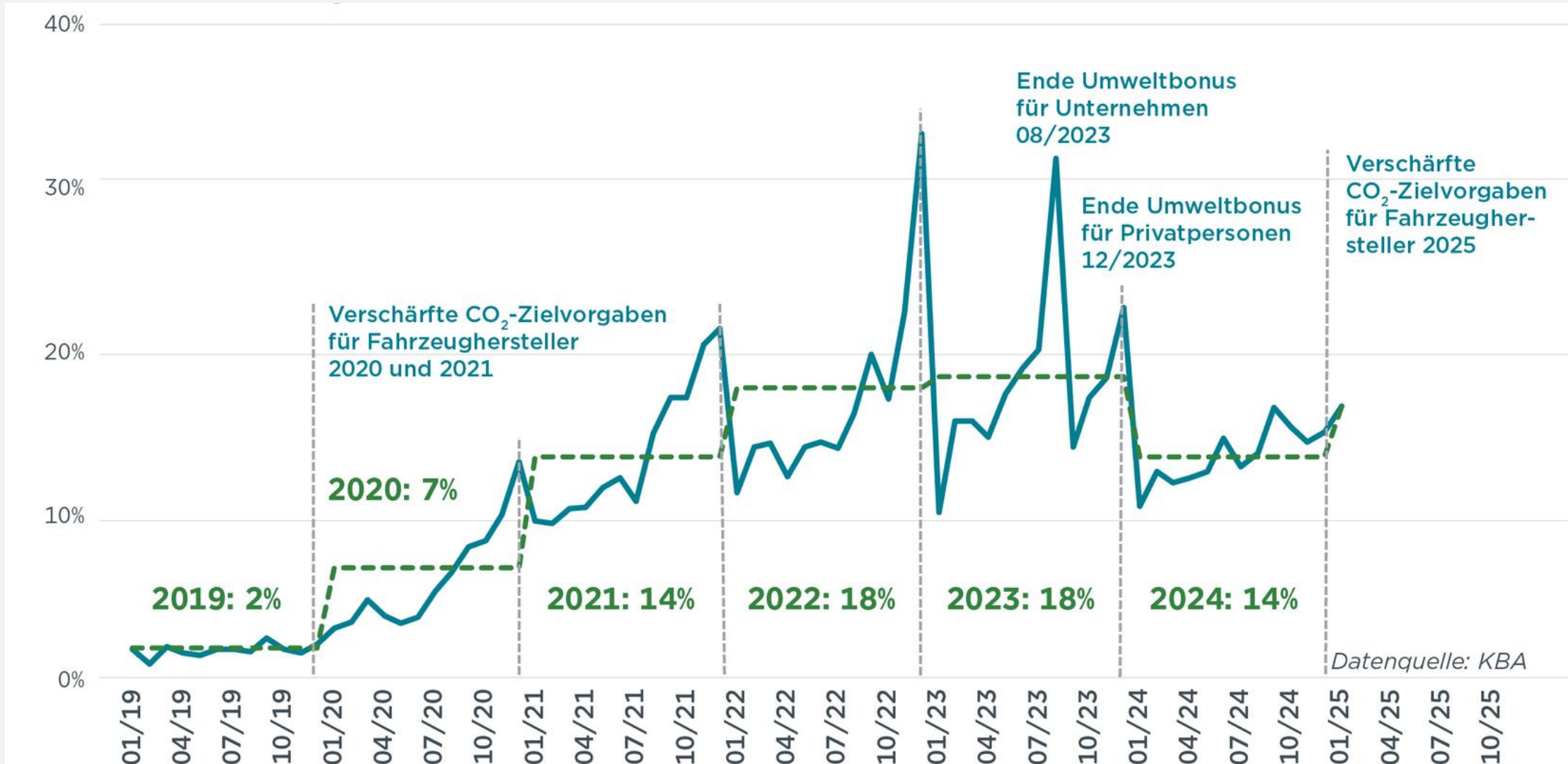
What are the current challenges?

Heat pumps are on their way up – but slowly and the new government is backtracking on the heating law

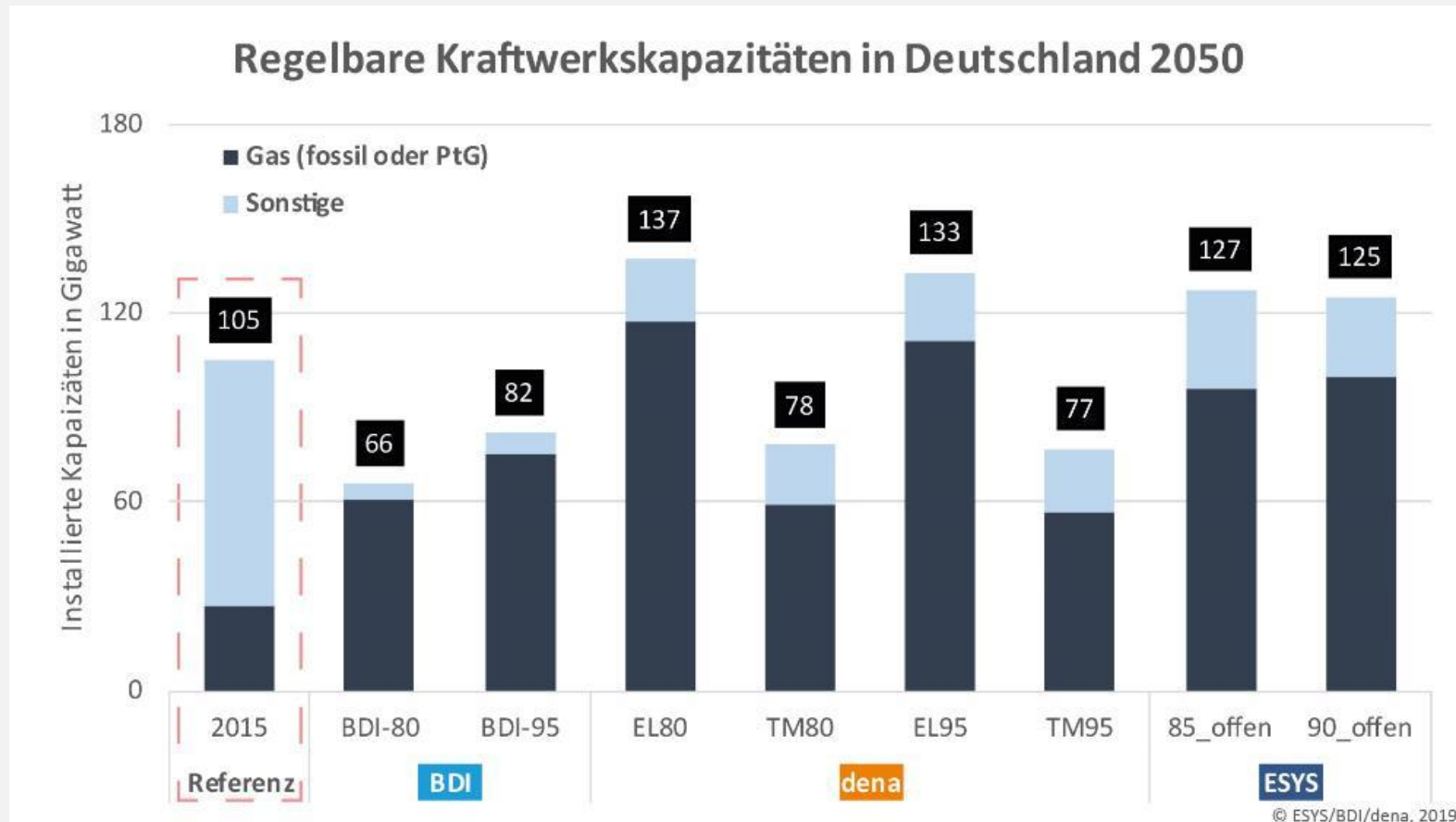
Anzahl [Tausend]



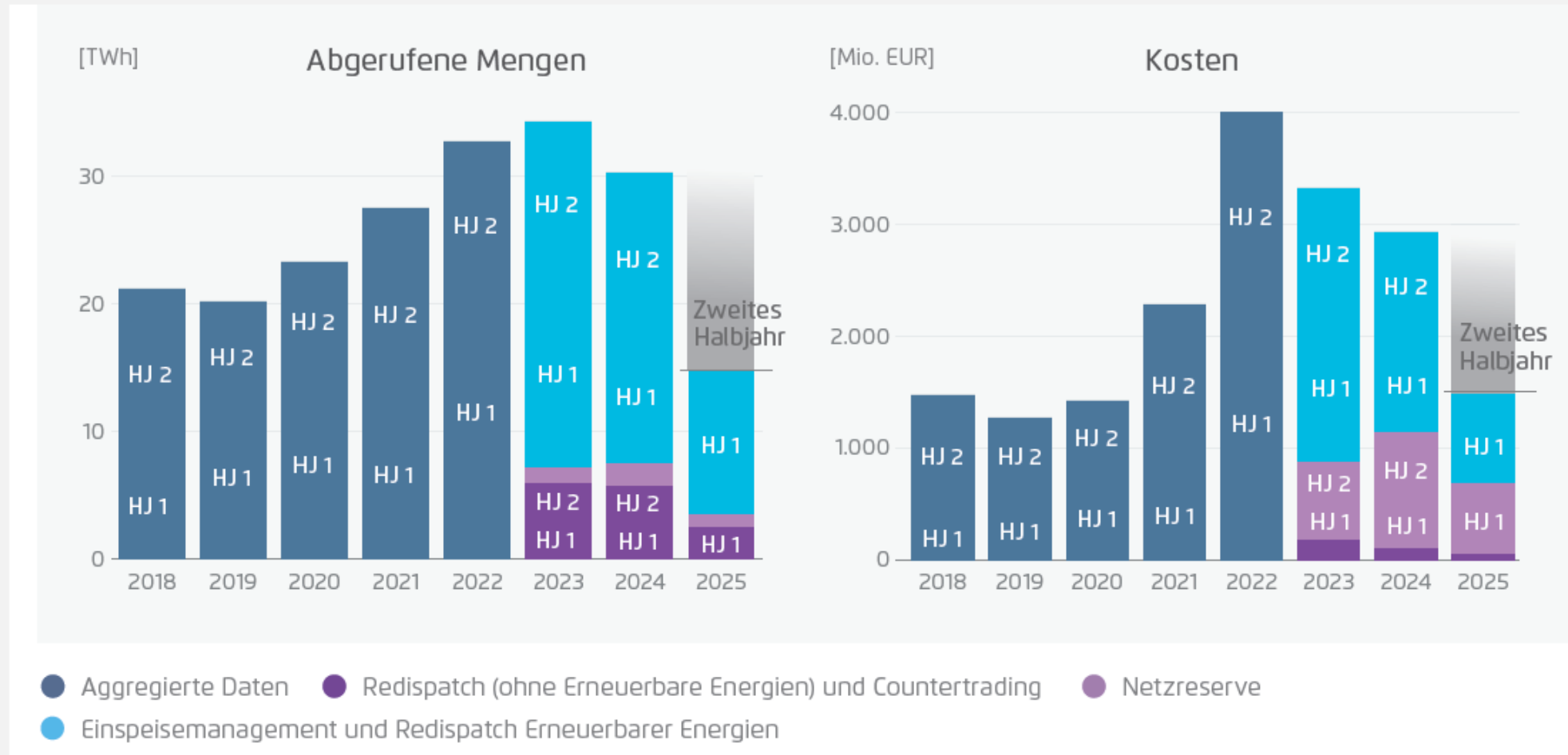
Electric Vehicles are only slowly picking up, (currently a 20% share in new cars), a new subsidy scheme for EVs has just started



In order to ensure security of supply in times when there is no wind and no sun (Dunkelflaute), Germany will establish a capacity market – will it favour gas?



The distribution grids are *the* bottleneck today (slow grid access, high curtailment) – how to best regulate grids, markets & find the best curtailment regime?



Outlook: Several key political decisions are upcoming in 2026

- Reform of the Renewable Energy Act
 - A new grids regulation
 - A Reform of the Heating Law
 - A Proposal for a Capacity Market
- Will they be RES&electrification-friendly or gas-friendly?**
- Will people continue to install solar, heat pumps, Evs?**

The future path of Germany's energy transition is wide open.

Thank you for your attention!

Contact:

LinkedIn: patrick-graichen

BlueSky: pgraichen.bsky.social

Email: patrick.graichen@gmx.de