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What do National Energy and Climate Plans tell us about the EU power sector in 2030?



Germany: Falling Behind in the Electricity Transition

EU-wide analysis of National Climate and Energy Plans reveals that Germany is one of seven EU countries falling furthest behind in decarbonising its electricity by 2030.

Why is Germany falling behind?

- In 2030, Germany will have one of the dirtiest electricity grids in the EU, due to a high reliance on fossil fuels and a notable role for coal.
- In 2030, Germany will be responsible for over a third of the EU's remaining electricity generation from coal.
- Germany expects the largest absolute decline in nuclear power output in the EU over the coming decade with all reactors required to close by law by the end of 2022.
- Germany is only planning EU average levels of renewable electricity deployment in the coming decade - despite the large declines in nuclear power output and the high share of fossil fuels in the mix.
- In 2030, Germany will be responsible for ~ 30% of the EU-27's power sector emissions and will be the biggest power sector emitter.

Charles Moore, Ember's European Programme Lead, said:



“Germany’s slow coal exit is blocking the EU electricity transition. By 2030, Germany will still be the EU’s biggest power sector emitter with one of the dirtiest electricity grids. This low ambition undermines the credibility of the German EU presidency in leveraging support for an emissions reduction of 55% among Member States such as Poland and Czechia. Germany urgently needs to change course and set an example by decarbonising its electricity this decade.”

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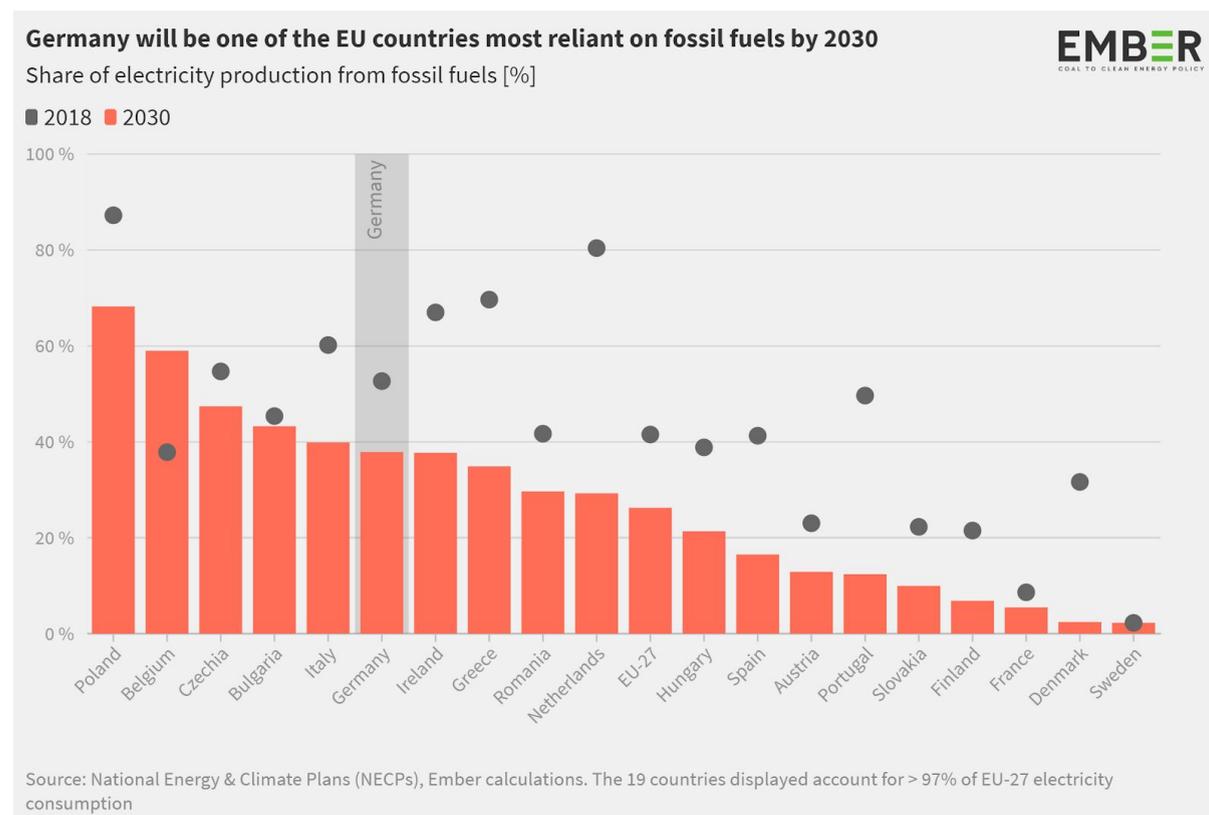
Methodology

Ember published a [report](#) analysing the National Energy and Climate Plans of all EU countries. This analysis revealed seven countries that are falling behind in decarbonising the electricity sector: Belgium, Bulgaria, Czechia, Germany, Italy, Romania and Poland.

Key findings in Germany

Fossil fuels

By 2030, Germany will be one of the EU countries most reliant on fossil fuels for electricity production. Germany's share of fossil fuels will be ~ 38% vs. an EU-27 average of about 25%. Germany plans only a modest reduction in fossil fuel's share by 2030.



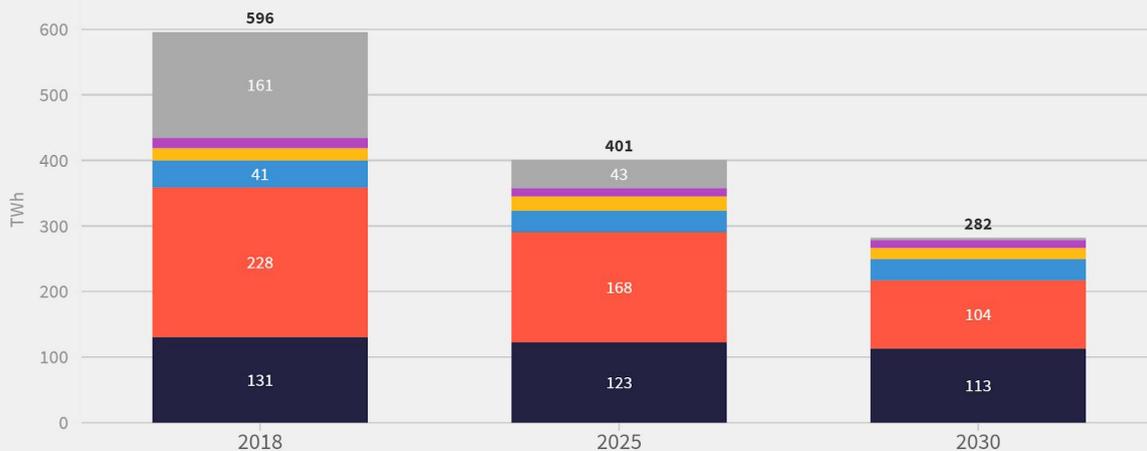
By 2030, coal is expected to retain a notable role in the electricity mix providing more than 15% of German electricity production. Germany will account for more than a third of the EU's remaining electricity generation from coal.

Germany accounts for more than a third of the EU's remaining electricity production from coal in 2030



Electricity generation from coal [TWh]

Legend: Poland (dark blue), Germany (red), Czechia (light blue), Bulgaria (yellow), Romania (purple), Other EU-27 (grey)



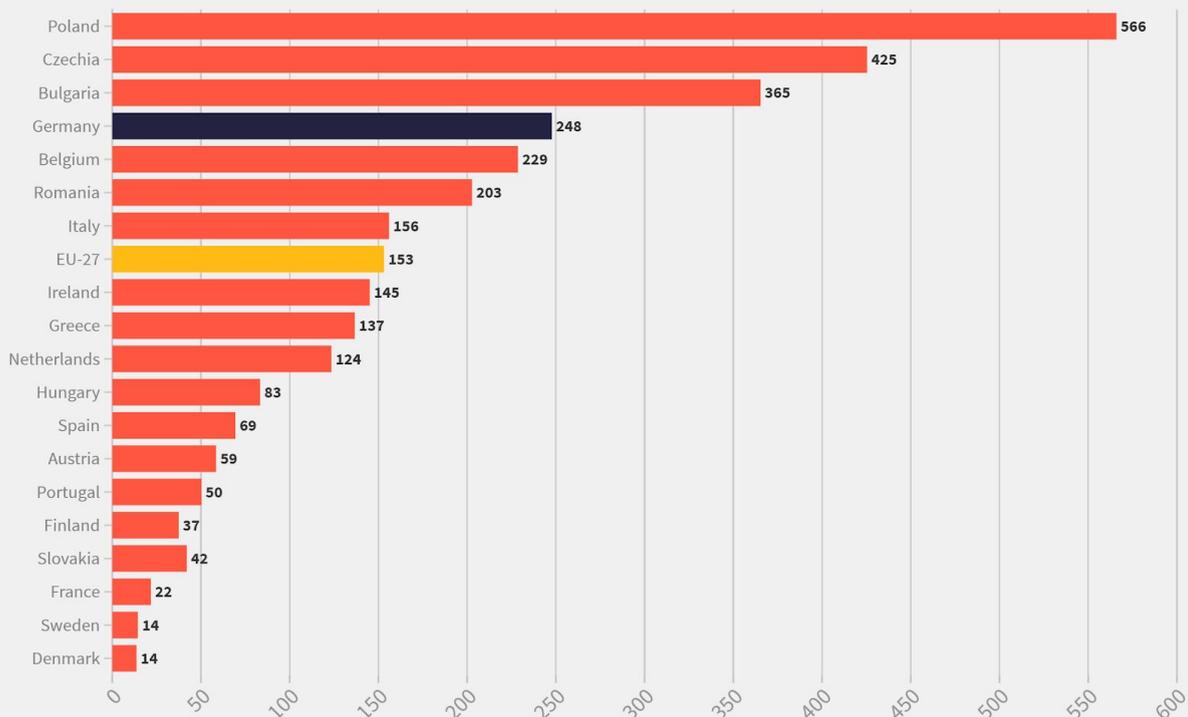
Source: National Energy & Climate Plans (NECPs), Ember calculations.

As a result, by 2030, Germany will have one of the dirtiest electricity grids in the EU.

Germany will be one of the EU countries with the dirtiest electricity by 2030



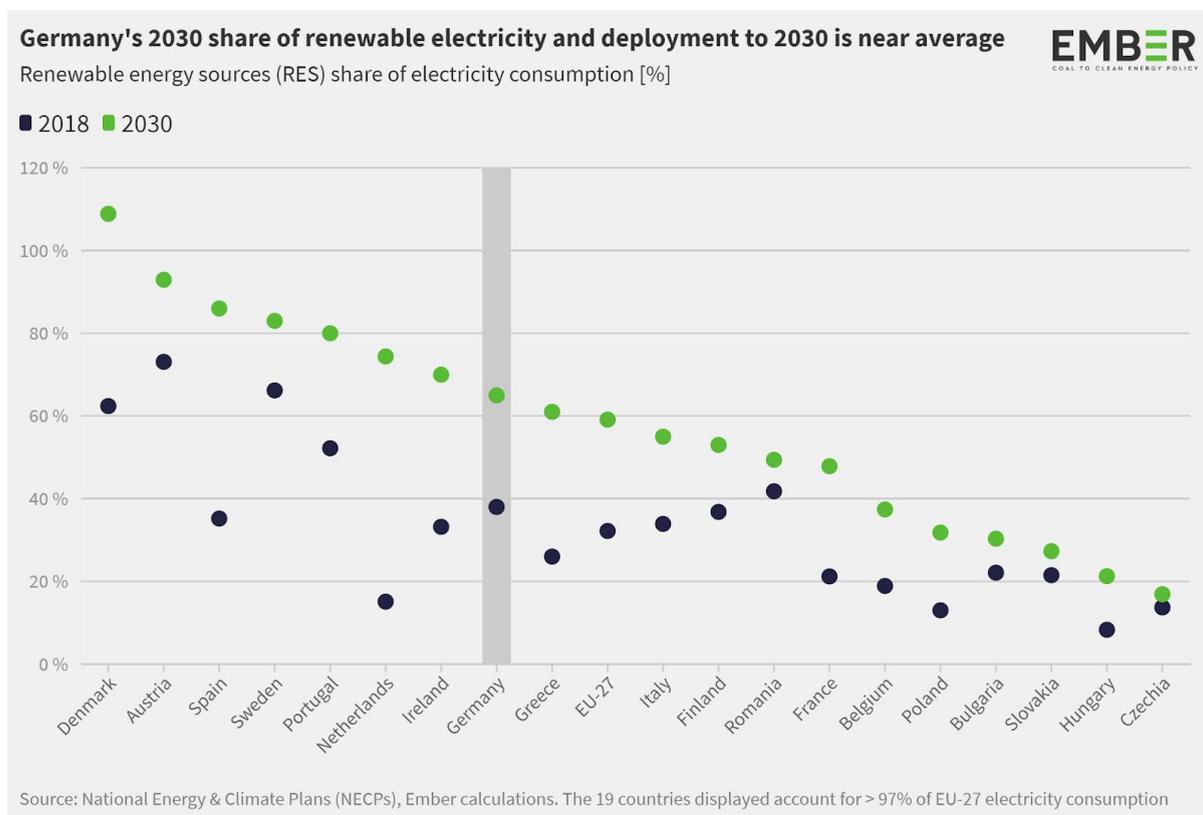
Expected emissions intensity of electricity production in 2030 [gCO₂/KWh]



Source: National Energy & Climate Plans (NECPs), Ember calculations. The 19 countries displayed account for > 97% of EU-27 electricity consumption

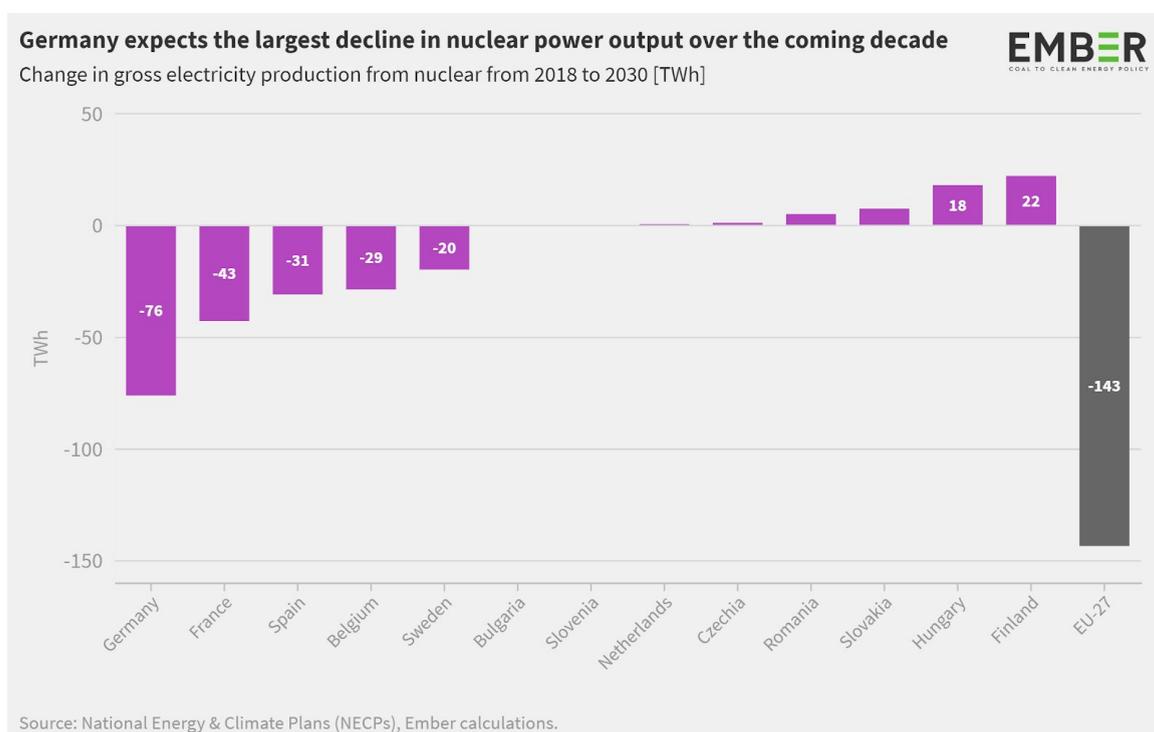
Renewables

Germany's expected 2030 share of renewable electricity is a little above the EU average. Renewable electricity deployment over the coming decade is approximately EU average.



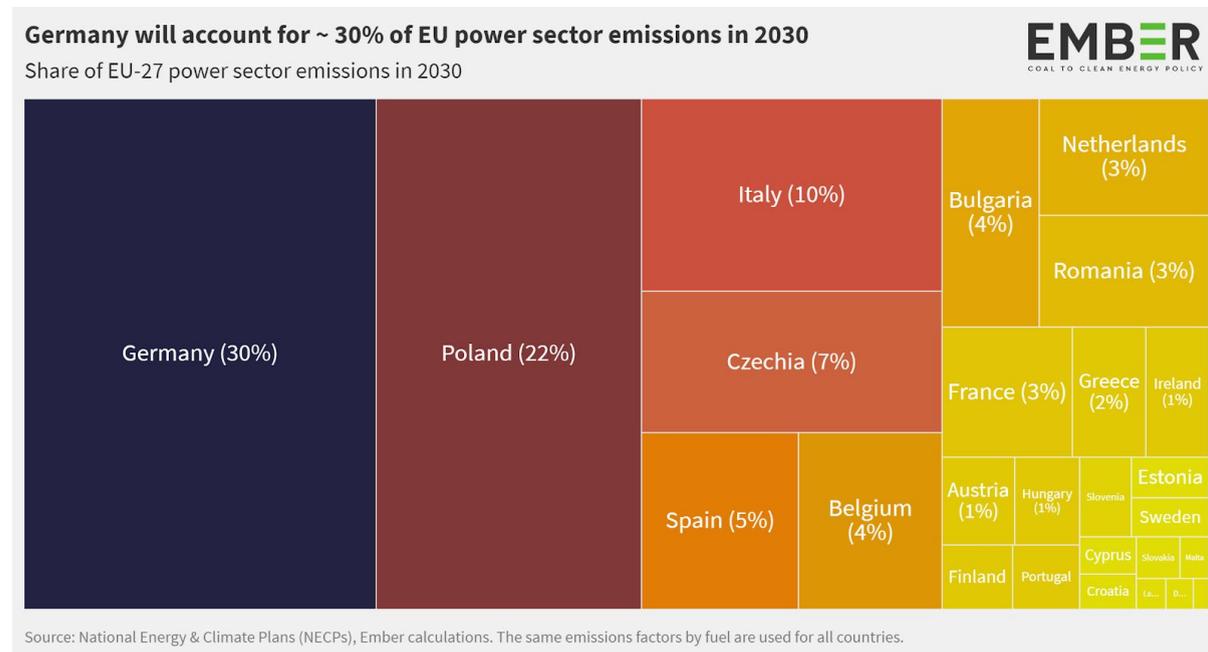
Nuclear power

Germany expects the largest decline in nuclear power output in the EU over the coming decade with all reactors required to close by law by the end of 2022. This significant and rapid decline in nuclear output reduces the impact Germany's planned renewable deployment will have on their level of electricity generation from fossil fuels.



Power sector emissions

By 2030 Germany will be responsible for ~30% of the EU-27's power sector emissions and will be the biggest power sector emitter.



Electricity Mix

