



Nuclear power



Does the German nuclear phase-out actually increase CO2 emissions ?

The end of nuclear energy has been programmed in Germany since the 2000s, and repeatedly supported by national governments. It is to be completed by 2022, when the last power plant is shut down. Does this lead to a switch back to coal, and an increase in CO2 emissions in the German power sector ?



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In reality, German CO2 emissions from the power sector have regularly decreased during the last 35 years. As an illustration, the average CO2 content of each kWh produced has been reduced from 761 g in 1990 to 569 g in 2014, a 25 % improvement.

It is true that the country has increased coal use in the last years (between 2009 and 2013), although not in relation to the nuclear phase-out. The main reason is rather the strong global coal price decline, leading to an increased market share compared to gas in several European countries. In 2014, the German coal consumption has gone down again.

German nuclear power supply has dropped by 40 % since 2006, while electricity exports increased. The rise of renewable energies (mostly wind and photovoltaics) has made it possible for this transition to take place, and for greenhouse gas emissions to decrease. In the meantime, Germany has managed to stabilise its electricity demand for ten years, notably through a high penetration of efficient appliances.

Efforts are still needed (both in terms of renewable energy development and energy savings) for Germany to continue reducing its greenhouse gas emissions and meet the ambitious target it has adopted : going for 80 % renewables in its electricity supply by 2050 (50 % by 2030).

