Source: https://www.statista.com/statistics/1300419/power-generation-emission-intensity-china/

Carbon intensity of the power sector in China from 2000 to 2023

(in grams of CO_2 per kilowatt-hour)

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Release date

June 2024

Region

China

Survey time period

2000 to 2023

Supplementary notes

Figures aim to include full lifecycle emissions including upstream methane, supply-chain and manufacturing emissions, and include all gases, converted into CO_2 equivalent over a 100 year timescale.

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Power sector carbon intensity in China 2000-2023

Published by Daniel Slotta, Jun 11, 2024

The carbon intensity of electricity generation in China was 582 grams of carbon dioxide per kilowatt-hour (gCO_2/kWh) in 2023. Although China's emission intensity has fallen over the past two decades, it still has the fourth highest globally. One reason is the country's dependence on coal power generation.

Decades of coal-dependence

Early in the PRC's existence, economic development relied on domestic resources. Despite its size, China is not rich in energy resources, except coal, which became the main fuel source until today. Because of its relative abundance and cheap prices on the world market, the Chinese energy sector had little incentive to change. Therefore, as the economy grew, so did the carbon emissions, which remain the highest worldwide until today.

Adapt and overcome

In a top-down approach, the Chinese energy sector has begun to change course and throw its weight towards renewable energy. In 2023, China was the leading investor in energy transition, allocation more than twice as much money towards green energy than the United States. As a result, the PRC was the only country among the top four economies globally who significantly decreased its carbon factor.