Carbon pricing in Germany

Emissions coverage by carbon pricing instrument, 2018-2021

In 2021, explicit carbon prices in Germany consist of the European Union (EU) Emissions Trading System (ETS) and the national ETS permit prices, which cover 85.3% of CO₂ emissions from energy use. In total, 88.1% of CO₂ emissions from energy use in Germany are priced in 2021, up from 86.9% in 2018. The share of emissions covered by an explicit carbon price has increased by 38.2 percentage points since 2018 following the introduction of the national ETS. Fuel excise taxes, an implicit form of carbon pricing, cover 41.8% of emissions in 2021, unchanged since 2018.

Note: Priced means that a positive price applies after correcting for tax reductions and refunds. Due to overlapping coverage between instruments, the sum of components can be larger than the summary indicators (explicit carbon prices, effective carbon rates). Taxes are those applicable on 1 April 2021. Where applicable, ETS coverage estimates are based on the OECD’s Effective Carbon Rates 2021, with ad-hoc adjustments to account for recent coverage changes. Emissions refer to energy-related CO₂ only and are calculated based on energy use data for 2018 from IEA’s World Energy Statistics and Balances. The figure includes CO₂ emissions from the combustion of biomass and other biofuels. Percentages are rounded to the first decimal place.

Average carbon price by instrument, 2018-2021

Since 2018, carbon prices have increased in Germany. Explicit carbon prices have increased to an average of EUR 30.26 per tonne of CO₂, up by EUR 22.52 since 2018 (in real 2021 euros). In 2021, fuel excise taxes amounted to EUR 47.97 on average, down by EUR 1.77 relative to 2018 (in real 2021 euros).

Note: Taxes are those applicable on 1 April 2021. The ETS price is the average ETS auction price for the first semester of 2021. Where applicable, ETS coverage estimates are based on the OECD’s, Effective Carbon Rates 2021, with ad-hoc adjustments to account for recent coverage changes. Emissions refer to energy-related CO₂ only and are calculated based on energy use data for 2018 from IEA’s World Energy Statistics and Balances. Carbon prices are averaged across all energy-related emissions, including those that are not covered by any carbon pricing instrument. The figure includes CO₂ emissions from the combustion of biomass and other biofuels. All rates are expressed in real 2021 EUR using the latest available OECD inflation data; change can thus be affected by inflation fluctuations. Prices are rounded to the nearest eurocent.
Effective carbon rates in Germany, average by sector and combination of instruments, 2021

Effective carbon rates are highest in the road sector, which accounts for 19.4% of the country’s total CO₂ emissions from energy use. With 76.3% of emissions priced, emissions coverage is lowest in off-road transport. The off-road transport sector accounts for 0.6% of CO₂ emissions from energy use in Germany.

Note: Emissions-weighted average by sector and combination of instruments (explicit carbon price only, fuel excise only, both, none). Taxes are those applicable on 1 April 2021. The ETS price is the average ETS auction price for the first semester of 2021. Where applicable, ETS coverage estimates are based on the OECD’s, Effective Carbon Rates 2021, with ad-hoc adjustments to account for recent coverage changes. Emissions refer to energy-related CO₂ only and are calculated based on energy use data for 2018 from IEA’s World Energy Statistics and Balances. The figure includes CO₂ emissions from the combustion of biomass and other biofuels. Prices are rounded to the nearest eurocent.

Want to know more?

- Download the data shown in the country notes: [www.oecd.org/tax/tax-policy/carbon-pricing-country-notes-data.xlsx](http://www.oecd.org/tax/tax-policy/carbon-pricing-country-notes-data.xlsx)

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