

Environmentally related taxes Taxes on energy use

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Centre for Tax Policy and Administration

Revenue from environmentally related taxes in Germany¹

As a share of GDP, Germany has the 19th lowest environmentally related tax revenue among 34 OECD and 5 partner economies. In 2014, environmentally related tax revenues were at 1.95% of GDP, compared to 2.0% on average among the 39 countries.

In Germany, taxes on energy represented 83% of total environmentally related tax revenue, compared to 70% on average among the 39 countries.

Environmentally related tax revenue as a percentage of GDP, 2014 Motor vehicles Other

¹Data from OECD.Stat include all OECD countries (except Latvia) and Argentina, Brazil, China, India and South Africa. Please see OECD.Stat for country specific notes.

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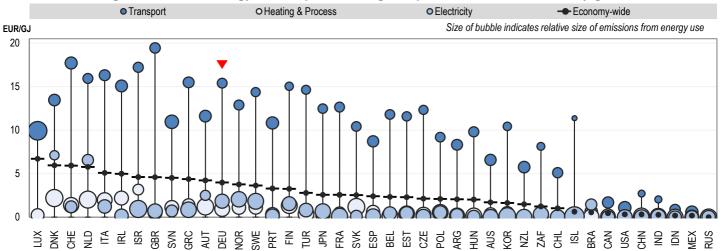
Taxes on energy use in Germany²

The OECD's Taxing Energy Use (2015) publication compares taxes on energy use (excise and carbon taxes) across 34 OECD and 7 partner economies. The chart below shows average tax rates, expressed in EUR per GJ, by sector across all fuels and the economy-wide average. The bubble size represents the weight of the sector in total energy use.

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- Germany has higher average tax rates on transport fuels (15.39 EUR/GJ) than on fuels used for heating and process purposes (0.94 EUR/GJ) or electricity generation (1.84 EUR/GJ);
- Germany has the 12th highest tax rate on energy on an economy-wide basis, at EUR 3.98 per GJ, compared with EUR 2.7 per GJ on a simple-average basis across the 34 OECD and 7 partner economies.

Average tax rates on energy in transport, heating and process use, and electricity generation



²Data from Taxing Energy Use are for 2012 and include all OECD countries (except Latvia) and Argentina, Brazil, China, India, Indonesia, Russia and South Africa.

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Effective Carbon Rates

Pricing CO, through taxes and emissions trading systems

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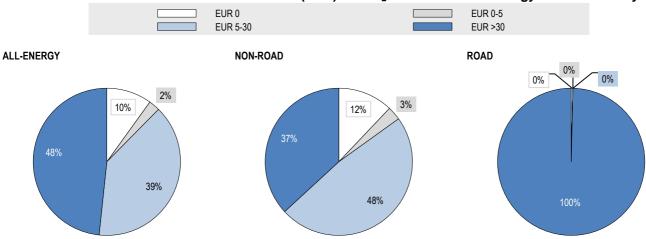
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Effective carbon rates in Germany

The OECD's Effective Carbon Rates (2016) publication presents the combined price signal on CO₂ emissions from taxes on energy and emissions trading systems (ETS), or the effective carbon rate (ECR).³ The charts below show shares of CO₂ emissions subject to different price ranges, for road, non-road and all emissions from energy use. EUR 30 is a conservative estimate of the climate damage from one tonne of CO₂ emissions.

- In Germany, 10% of carbon emissions from energy use face no price signal at all; 88% face a price at or above EUR 5 per tonne of CO₂; and 48% face a price at or above EUR 30 per tonne of CO₂. This compares to a zero price for 60% of emissions across all countries, a price at or above EUR 5 per tonne for 30% and at or above EUR 30 per tonne for 10% of emissions.
- Excluding road use, 12% of carbon emissions from energy use in Germany face no price signal at all; 85% face a price at or above » EUR 5 per tonne of CO₂; and 37% face a price at or above EUR 30 per tonne of CO₂. This compares to a zero price for 70% of emissions across all countries, a price at or above EUR 5 per tonne for 19% and at or above EUR 30 per tonne for 4% of emissions.

Distribution of Effective Carbon Rates (ECR) on CO₂ emissions from energy use in Germany



Figures shown in the charts may not add up to 100% due to rounding.

³Notes on the interpretation of effective carbon rates: Box 3.1 (p.38-40), OECD's Effective Carbon Rates (2016), or consult http://oe.cd/ECRinterpretation

CO₂ emissions priced and average rates in Germany

The table below shows the average price signals from taxes and trading systems, and the share of emissions priced by these instruments.

- » Germany is subject to the EU ETS, which had an average permit price of EUR 7.24 per tonne of CO₂ in 2012.
- In total, taxes in Germany price 84% of CO₂ emissions from energy use; and the EU ETS prices 46%. The sectors with the highest tax coverage are electricity (100%) and road transport (100%). The sectors with the highest price coverage by the ETS are electricity (89%) and industry (58%).

Share of emissions priced and average price signals from tax & ETS, Germany

	CO ₂ emissions by sector (in t CO ₂)	Tax		ETS			Emissions not
		Average price (in EUR/tCO ₂)	Share of emissions priced	Average price (in EUR/tCO ₂)	Share of emissions priced	Overlap of tax and ETS ⁵	priced by tax or ETS
Agriculture & Fishing	0	0.0	100%	0.0	100%	0%	0%
Electricity	270 830	26.2	100%	7.2	89%	89%	0%
Industry	233 586	17.0	58%	7.2	58%	36%	20%
Offroad transport	4 745	162.2	24%	7.2	39%	9%	47%
Residential & Commercial	171 703	26.0	80%	7.2	0%	0%	20%
Road transport	152 238	220.3	100%	0.0	0%	0%	0%
Total ⁴	833 102	55.9	84%	3.3	46%	39%	10%

Access the data for all 41 countries:

http://oe.cd/emissionsdata

⁴Total average prices are weighted by the share of emissions in each sector that is priced in the country.

⁵Tax and ETS can apply to the same emissions base. The overlap describes the percentage of emissions in a sector that is priced by both tax and ETS.