Environmentally related taxes
Taxes on energy use

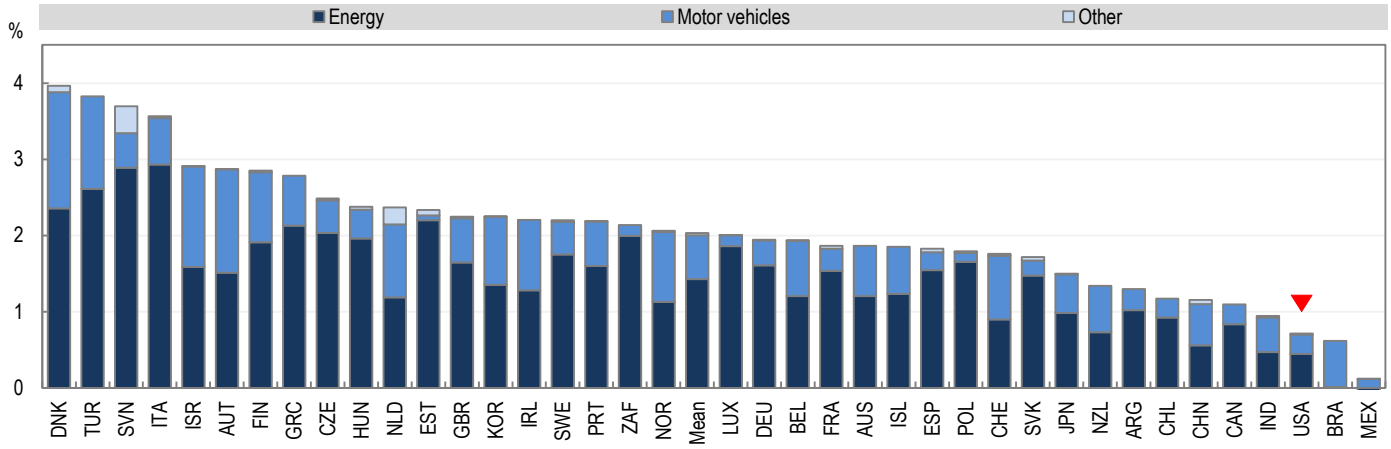
BETTER POLICIES FOR BETTER LIVES | Centre for Tax Policy and Administration

Revenue from environmentally related taxes in the United States[1]

As a share of GDP, the United States has the 3rd lowest environmentally related tax revenue among 34 OECD and 5 partner economies. In 2014, environmentally related tax revenues were at 0.71% of GDP, compared to 2.0% on average among the 39 countries.

In the United States, taxes on energy represented 63% 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



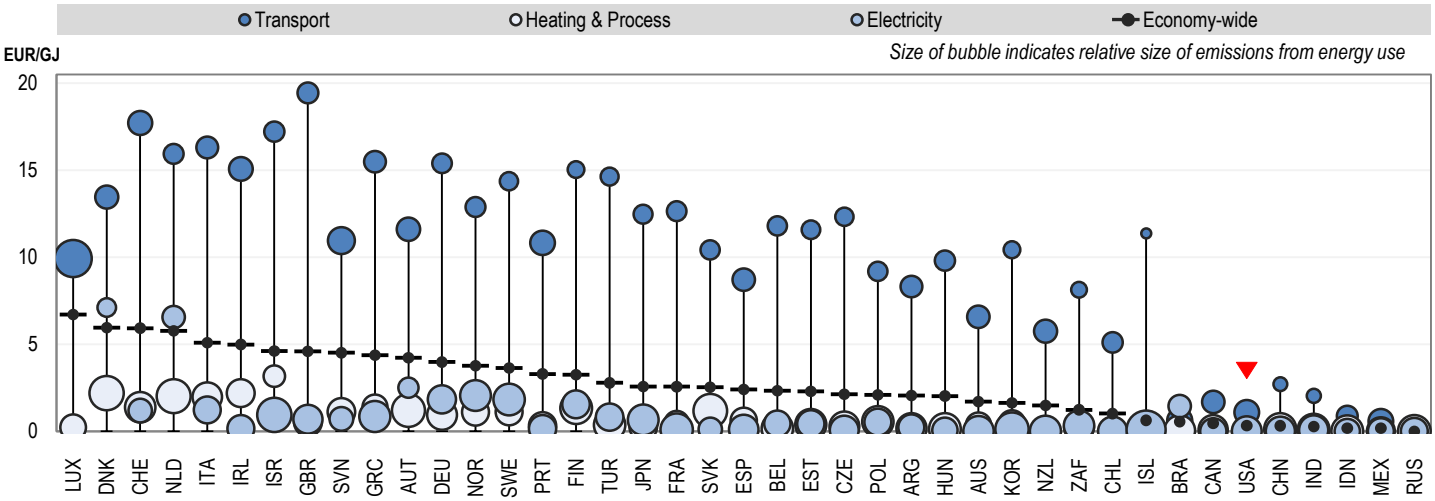
[1]Data from OECD.Stat include all OECD countries (except Latvia) and Argentina, Brazil, China, India and South Africa. Please see OECD.Stat for country specific notes.

Taxes on energy use in the United States[2]

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.

- The United States has higher average tax rates on transport fuels (1.09 EUR/GJ) than on fuels used for heating and process purposes (0 EUR/GJ) or electricity generation (0 EUR/GJ);
- The United States has the 6th lowest tax rate on energy on an economy-wide basis, at EUR 0.32 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



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

Contacts

David Bradbury
Centre for Tax Policy and Administration
Head, Tax Policy and Statistics Division
David.Bradbury@oecd.org

Kurt Van Dender
Centre for Tax Policy and Administration
Head, Tax and Environment Unit
Kurt.VanDender@oecd.org

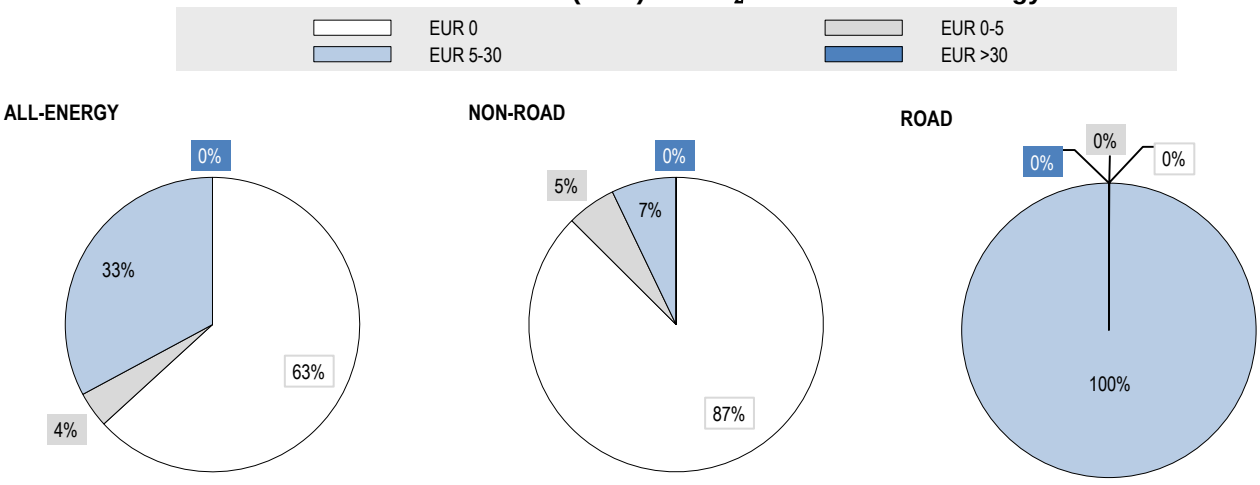
Effective carbon rates in the United States

The **OECD's Effective Carbon Rates (2016)** publication presents the combined price signal on CO_2 emissions from taxes on energy and emissions trading systems (ETS), or the effective carbon rate (ECR).[3] The charts below show shares of CO_2 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 CO_2 emissions.

» In the United States, 63% of carbon emissions from energy use face no price signal at all; 33% face a price at or above EUR 5 per tonne of CO_2; and 0% face a price at or above EUR 30 per tonne of CO_2. 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, 87% of carbon emissions from energy use in the United States face no price signal at all; 7% face a price at or above EUR 5 per tonne of CO_2; and 0% face a price at or above EUR 30 per tonne of CO_2. 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 CO_2 emissions from energy use in United States



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

[3]Notes 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

CO_2 emissions priced and average rates in the United States

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

» There are two subnational ETS in the United States: California & Regional Greenhouse Gas Initiative (RGGI), which had an average permit price of EUR 9.91 (2013) and EUR 1.48 (2012) per tonne of CO_2 respectively.

» In total, taxes in the United States price 32% of CO_2 emissions from energy use; and the California & RGGI ETS cover 8%. The sectors with the highest tax coverage are road transport (100%) and offroad transport (85%). The sectors with the highest price coverage by the ETS are road transport (11%) and electricity (8%).

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

	CO_2 emissions by sector (in t CO_2)	Tax		ETS		Overlap of tax and ETS[5]	Emissions not priced by tax or ETS
		Average price (in EUR/tCO_2)	Share of emissions priced	Average price (in EUR/tCO_2)	Share of emissions priced		
Agriculture & Fishing	48 942	0.0	0%	9.9	8%	0%	92%
Electricity	2 051 888	0.0	0%	4.2	8%	0%	92%
Industry	1 005 395	0.0	0%	7.3	5%	0%	95%
Offroad transport	253 991	6.2	85%	9.9	2%	2%	15%
Residential & Commercial	555 717	0.0	0%	9.9	8%	0%	92%
Road transport	1 502 850	17.2	100%	9.9	11%	11%	0%
Total[4]	**5 418 783**	**5.0**	**32%**	**0.6**	**8%**	**3%**	**63%**

Access the data for all 41 countries: http://oe.cd/emissionsdata

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

[5]Tax 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.