

Environmentally related taxes Taxes on energy use

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Centre for Tax Policy and Administration

Revenue from environmentally related taxes in New Zealand¹

As a share of GDP, New Zealand has the 9th lowest environmentally related tax revenue among 34 OECD and 5 partner economies. In 2014, environmentally related tax revenues were at 1.34% of GDP, compared to 2.0% on average among the 39 countries.

In New Zealand, taxes on energy represented 55% of total environmentally related tax revenue, compared to 70% on average among the 39 countries.

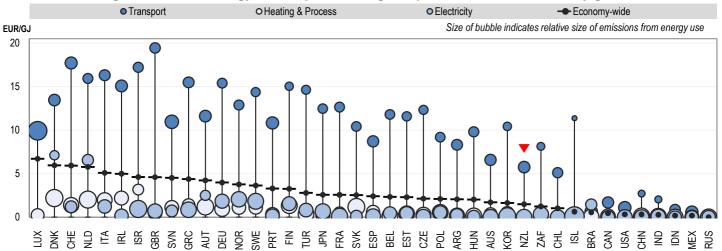
¹Data from OECD.Stat include all OECD countries (except Latvia) and Argentina, Brazil, China, India and South Africa. Please see OECD.Stat for country specific notes.

Taxes on energy use in New Zealand²

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.

- New Zealand has higher average tax rates on transport fuels (5.75 EUR/GJ) than on fuels used for heating and process purposes (0.06 EUR/GJ) or electricity generation (0 EUR/GJ);
- New Zealand has the 30th highest tax rate on energy on an economy-wide basis, at EUR 1.48 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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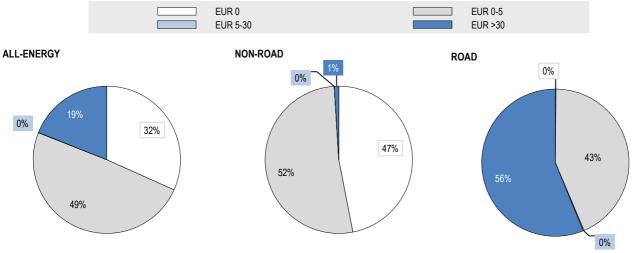
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Effective carbon rates in New Zealand

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 New Zealand, 32% of carbon emissions from energy use face no price signal at all; 19% face a price at or above EUR 5 per tonne of CO₂; and 19% 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, 47% of carbon emissions from energy use in New Zealand face no price signal at all; 1% face a price at or above EUR 5 per tonne of CO₂; and 1% 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 New Zealand



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 New Zealand

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

- » New Zealand is subject to the New Zealand ETS, which had an average permit price of EUR 1.33 per tonne of CO₂ in 2012.
- In total, taxes in New Zealand price 41% of CO₂ emissions from energy use; and the New Zealand ETS covers 60%. The sectors with the highest tax coverage are road transport (100%) and agriculture and fisheries (76%). The sectors with the highest price coverage by the ETS are offroad transport (81%) and road transport (81%).

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

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	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	1 750	1.0	76%	1.3	71%	54%	7%
Electricity	6 343	0.0	0%	1.3	54%	0%	46%
Industry	13 884	7.0	8%	1.3	41%	5%	56%
Offroad transport	1 308	0.9	26%	1.3	81%	21%	14%
Residential & Commercial	2 096	8.5	17%	1.3	53%	13%	43%
Road transport	12 248	89.2	100%	1.3	81%	81%	0%
Total	37 629	29.3	41%	0.8	60%	32%	32%

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.