

# Environmentally related taxes Taxes on energy use

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Centre for Tax Policy and Administration

#### Revenue from environmentally related taxes in Norway<sup>1</sup>

As a share of GDP, Norway has the 19th highest environmentally related tax revenue among 34 OECD and 5 partner economies. In 2014, environmentally related tax revenues were at 2.06% of GDP, compared to 2.0% on average among the 39 countries.

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

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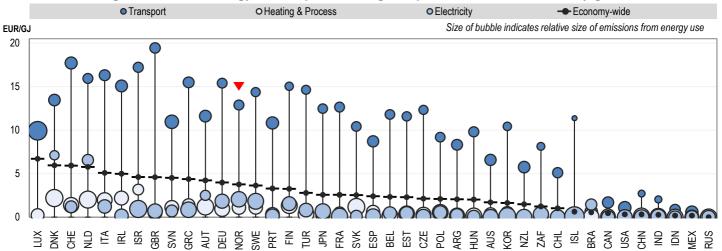
<sup>1</sup>Data from OECD.Stat include all OECD countries (except Latvia) and Argentina, Brazil, China, India and South Africa. Please see OECD.Stat for country specific notes.

#### Taxes on energy use in Norway<sup>2</sup>

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.

- Norway has higher average tax rates on transport fuels (12.89 EUR/GJ) than on fuels used for heating and process purposes (1.1 EUR/GJ) or electricity generation (2.06 EUR/GJ);
- Norway has the 13th highest tax rate on energy on an economy-wide basis, at EUR 3.77 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



<sup>2</sup>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.

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### **Effective Carbon Rates**

Pricing CO, through taxes and emissions trading systems

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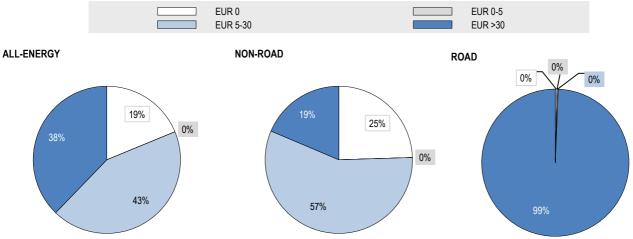
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#### **Effective carbon rates in Norway**

The OECD's Effective Carbon Rates (2016) publication presents the combined price signal on CO<sub>2</sub> emissions from taxes on energy and emissions trading systems (ETS), or the effective carbon rate (ECR).<sup>3</sup> The charts below show shares of CO<sub>2</sub> 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<sub>2</sub> emissions.

- In Norway, 19% of carbon emissions from energy use face no price signal at all; 81% face a price at or above EUR 5 per tonne of CO<sub>2</sub>; and 38% face a price at or above EUR 30 per tonne of CO<sub>2</sub>. 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, 25% of carbon emissions from energy use in Norway face no price signal at all; 75% face a price at or above » EUR 5 per tonne of CO<sub>2</sub>; and 19% face a price at or above EUR 30 per tonne of CO<sub>2</sub>. 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<sub>2</sub> emissions from energy use in Norway



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

#### CO<sub>2</sub> emissions priced and average rates in Norway

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

- » Norway 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 Norway price 65% of CO<sub>2</sub> emissions from energy use; and the EU ETS prices 45%. 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 industry (83%) and electricity (58%).

Share of emissions priced and average price signals from tax & ETS. Norway

	CO <sub>2</sub> emissions by sector (in t CO <sub>2</sub> )	Average price (in EUR/tCO <sub>2</sub> )	Share of emissions priced	Average price (in EUR/tCO <sub>2</sub> )	Share of emissions priced	Overlap of tax and ETS <sup>5</sup>	Emissions not priced by tax or ETS
Agriculture & Fishing	2 043	78.4	98%	0.0	0%	0%	2%
Electricity	332	1344.4	100%	7.2	58%	58%	0%
Industry	21 116	53.7	54%	7.2	83%	54%	16%
Offroad transport	3 865	20.7	69%	7.2	30%	21%	22%
Residential & Commercial	4 508	77.5	23%	7.2	0%	0%	77%
Road transport	9 912	240.3	100%	0.0	0%	0%	0%
Total <sup>4</sup>	41 776	89.2	65%	3.3	45%	30%	19%

Access the data for all 41 countries:

http://oe.cd/emissionsdata

<sup>&</sup>lt;sup>3</sup>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

<sup>&</sup>lt;sup>4</sup>Total average prices are weighted by the share of emissions in each sector that is priced in the country.

<sup>&</sup>lt;sup>5</sup>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.