Taxing Energy Use 2018

United States

This note describes the taxation of energy use in the United States. It contains the country's energy tax profiles, followed by country-specific information to complement the general discussion in *Taxing Energy Use 2018* (OECD, 2018). The note contains four energy tax profiles for the United States:

- Figure 1: Effective tax rates on energy use in national currency and EUR/GJ, 2015, including electricity output taxes and energy use from biomass
- Figure 2: Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, including electricity output taxes and energy use from biomass
- Figure 3: Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, excluding taxes on electricity output, including carbon emissions from biomass
- Figure 4: Effective tax rates on energy in national currency and EUR/tCO₂, 2015, excluding taxes on electricity output and carbon emissions from biomass

The main insights from the second vintage of the *Taxing Energy Use* database, including a systematic comparison of patterns of the taxation of energy use across countries, sectors and fuels are available in *Taxing Energy Use 2018* (OECD, 2018) at: http://oe.cd/TEU2018.

1. Energy tax profiles for The United States

Figure 1. Effective tax rates on energy use in national currency and EUR/GJ, 2015, including electricity output taxes and energy use from biomass

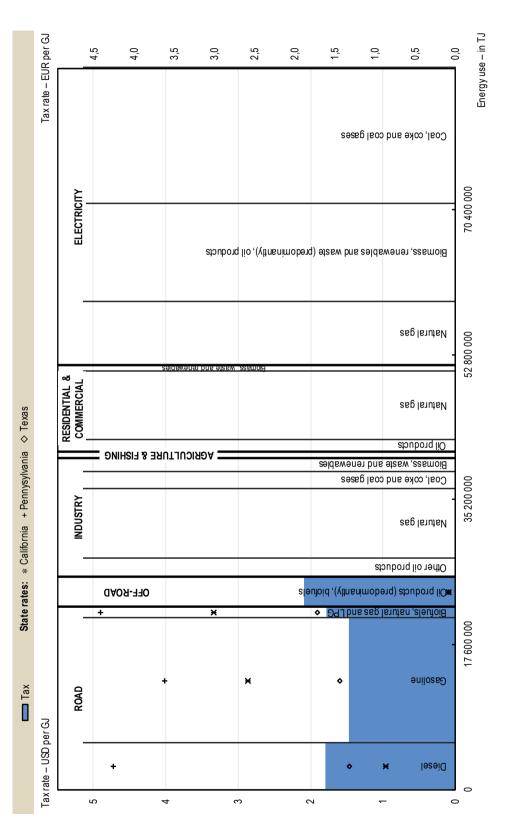


Figure 2. Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, including electricity output taxes and carbon emissions from biomass

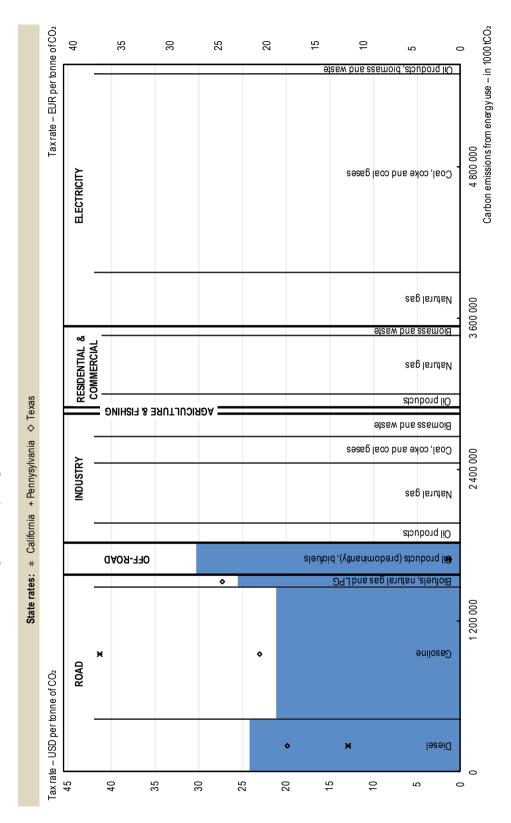
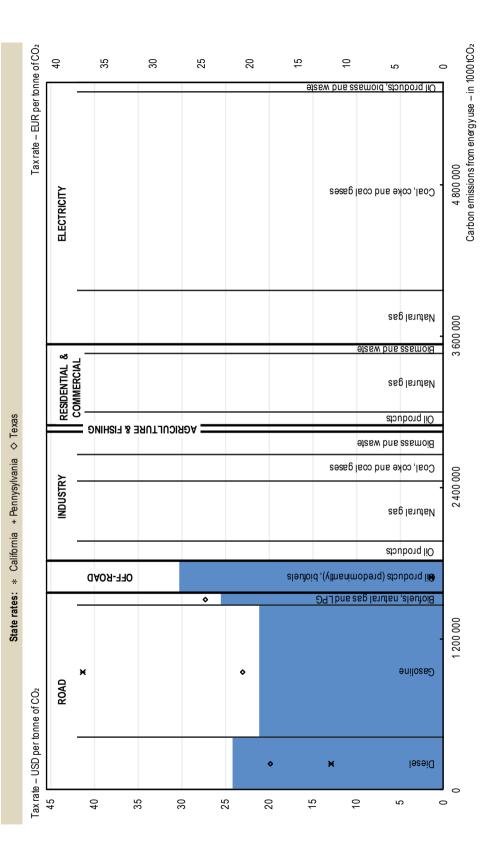


Figure 3. Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, excluding taxes on electricity output, including carbon emissions from biomass



Carbon emissions from energy use - in 1000 tCO₂

Taxrate - EUR per tonne of CO₂ Coal, coke and coal gases Figure 4. Effective tax rates on energy use in national currency and EUR/tCO₂, 2015, excluding taxes on electricity output and carbon emissions from biomass ELECTRICITY Natural gas 3 300 000 RESIDENTIAL & COMMERCIAL Natural gas State rates: * California + Pennsylvania > Texas Oil products AGRICULTURE & FISHING Coal and coke (predominantly), non-renewable waste 2 200 000 INDUSTRY Natural gas Oil products ₩il products, natural gas OFF-ROAD 1 100 000 Gasoline ROAD Tax rate - USD per tonne of CO₂ Tax ۰ Diesel 0 0 9 9 20 49 30 20

20

40

30

20

9

2. Country-specific notes

This note describes the taxation of energy use in the United States. It contains the country's energy tax profiles, accompanied by country-specific information to complement the general discussion in *Taxing Energy Use 2018* (OECD, 2018). Tax rates are those applicable in April 2015, energy use data are for 2014.

The data shown in the energy tax profiles is from the OECD's *Taxing Energy Use* (TEU) Database. More detail on the TEU Database, the calculation of effective tax rates on energy use and the interpretation of the energy tax profiles can be found in *Taxing Energy Use 2018* (OECD, 2018).

Energy and carbon taxes

In the United States, an excise tax¹ applies to oil products used in the road and off-road transport sectors, at the federal level. States also levy taxes on transport fuels and they are are added to the federal tax rates. These are shown on an illustrative basis for three states, chosen for their significance in terms of population (California and Texas) and level of energy taxes (Pennsylvania).

The rates at which these taxes apply differ across fuels and different users, as described below.

These taxes are included in the energy tax profiles of the United States. Where more than one tax rate applies to an energy user or fuel, the energy tax profile shows their sum.

Effective tax rates on energy use for different fuels and users

The tax rates on different fuels and uses are linked to the United States's energy use² to calculate effective tax rates on energy use (in USD/TJ and EUR/TJ) or CO₂ emissions from energy use (in USD/TJ and EUR/tCO₂). Energy use and the CO₂ emissions associated with it are shown for six economic sectors: road transport, domestic offroad transport, industry, agriculture and fishing, residential and commercial, and electricity.

The energy tax profiles (Figures 1 and 2) of the United States show effective tax rates for different fuels and uses in terms of the fuels' energy and carbon content, respectively. Figures 1 and 2 include energy use and carbon emissions from biomass and they show output taxes on electricity. Figure 3 is identical to Figure 2, except that taxes on electricity output are excluded. Figure 4 excludes carbon emissions from biomass and taxes on electricity output.

• Of the six economic sectors, the **road** sector is taxed relatively highly. Diesel is taxed at a higher statutory rate than gasoline, gasoline is taxed at a lower effective rate in terms of TJ and in terms of CO₂. Since biofuels are taxed at the same rates as their fossil fuel equivalents, the effective tax rate on these fuels is the highest among all fuels within the road sector.

Alternative Fuel Credits (AFC) apply to LPG, natural gas and biodiesel, but AFCs are not included in the *Taxing Energy Use* data. The AFCs expired by end of 2017.

^{1.} Revenues generated from the excise tax on gasoline and on diesel use are earmarked to the Highway Trust Fund (Tax Policy Center, Urban Institute & Brookings Institution, 2017).

^{2.} Data on energy use is taken from the IEA's *Extended World Energy Balances*, see Chapter 1 of *Taxing Energy Use 2018* (OECD, 2018) for additional detail.

- Gasoline and kerosene for domestic aviation and marine fuels are taxed at relatively high statutory rates, translating into high effective tax rates on fuels used in off-road transport.
 - Since commercial aviation accounts for 90% of energy use in domestic aviation, the applicable (higher) tax rate for jet kerosene was included in the data.
- Fossil fuels used in all other economic sectors (industry, residential and commercial, agriculture and fishing and electricity) are untaxed at the federal level.

Reported tax expenditures and rebates

The United States recognizes tax expenditures as only those provisions that operate through the income tax system (business or individual income taxes). Excise tax provisions are not listed as tax expenditures in the United States because the baseline tax system from which tax expenditures deviate is not defined for excise taxes. Therefore, the *Taxing Energy Use* database does not include any tax expenditures for the United States.

Sources

The main insights from the second vintage of the *Taxing Energy Use* database are analysed in:

OECD (2018), *Taxing Energy Use 2018 – Companion to the Taxing Energy Use Database*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264289635-en.

Apart from the sources included in OECD (2018), the following country-specific sources were used:

- California State Board of Equalization (2015), "Tax rates Special Taxes and Fees", www. boe.ca.gov/sptaxprog/tax rates stfd.htm#9a.
- Tax Policy Center, Urban Institute & Brookings Institution (2017) "Key Elements of the U.S. Tax System: What is the Highway Trust Fund, and how it is financed?", www.taxpolicycenter.org/briefing-book/what-highway-trust-fund-and-how-it-financed.
- Pennsylvania Department of Revenue (2015), "Current Tax Rates", <u>www.revenue.pa.gov/</u> GeneralTaxInformation/Current%20Tax%20Rates/Pages/default.aspx#.Veq9RperFpk.
- U.S. Department of Energy (undated), "Alternative Fuels Data Center: Expired, Repealed, and Archived Incentives and Laws", https://www.afdc.energy.gov/laws/laws_expired?jurisdiction=US.
- Texas Comptroller of Public Account (2015), "Diesel Fuel" http://comptroller.texas.gov/taxinfo/fuels/diesel.html.