# Taxing Energy Use 2018

# **Turkey**

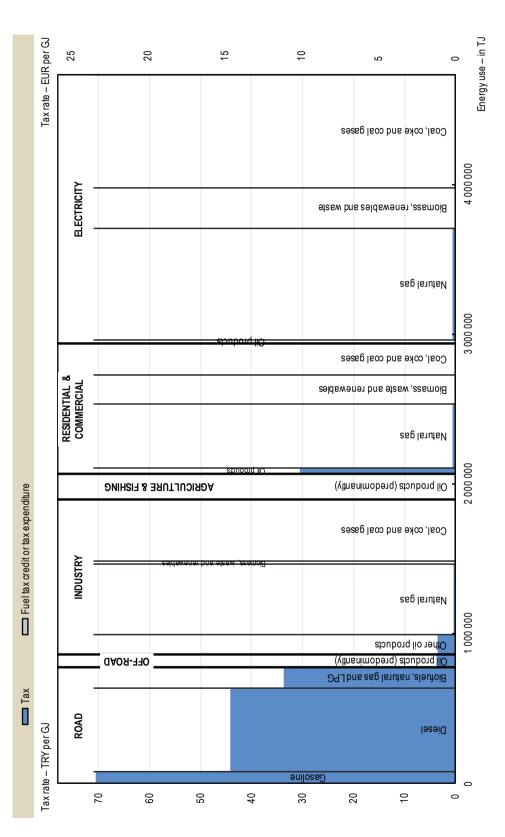
This note describes the taxation of energy use in Turkey. It contains the country's energy tax profiles, followed by country-specific information to complement the general discussion in *Taxing Energy Use 2018* (OECD, 2018). The note contains four energy tax profiles for Turkey:

- 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/tCO<sub>2</sub>, 2015, including electricity output taxes and energy use from biomass
- Figure 3: Effective tax rates on energy use in national currency and EUR/tCO<sub>2</sub>, 2015, excluding taxes on electricity output, including carbon emissions from biomass
- Figure 4: Effective tax rates on energy in national currency and EUR/tCO<sub>2</sub>, 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 Turkey

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



 $268\,000$  Carbon emissions from energy use – in  $1000\,\text{tCO}_2$ Taxrate - EUR per tonne of CO<sub>2</sub> 350 300 250 200 150 100 20 0 Coal, coke and coal gases ELECTRICITY Figure 2. Effective tax rates on energy use in national currency and EUR/tCO<sub>2</sub>, 2015, including electricity output taxes and carbon emissions from biomass Natural gas 201 000 Coal, coke and coal gases RESIDENTIAL & COMMERCIAL Biomass and waste Natural gas Oil products (predominantly) AGRICULTURE & FISHING 134 000 Euel tax credit or tax expenditure Coal, coke and coal gases NDUSTRY Natural gas 000 29 Oil products Oil products (predominantly) OFF-ROAD Biofuels, natural gas and LPG Tax rate – TRY per tonne of CO<sub>2</sub> Tax ROAD Diesel 0 1 000 0 800 900 400 200

 $268\,000$  Carbon emissions from energy use – in  $1000\,\text{tCO}_2$ Taxrate - EUR per tonne of CO<sub>2</sub> 350 300 250 200 150 100 20 Coal, coke and coal gases ELECTRICITY Figure 3. Effective tax rates on energy use in national currency and EUR/tCO<sub>2</sub>, 2015, excluding taxes on electricity output, including carbon emissions from biomass Natural gas Biomass and waste 201 000 RESIDENTIAL & COMMERCIAL Coal, coke and coal gases Natural gas Oil products (predominantly) AGRICULTURE & FISHING 134 000 Euel tax credit or tax expenditure Coal, coke and coal gases NDUSTRY Natural gas 000 29 Oil products OFF-ROAD Oil products (predominantly) Biofuels, natural gas and LPG Tax rate – TRY per tonne of CO<sub>2</sub> Tax ROAD Diesel 0 1 000 0 800 900 400 200

 $256\,000$  Carbon emissions from energy use – in  $1000\,\text{tCO}_2$ Tax rate - EUR per tonne of CO<sub>2</sub> 350 300 250 100 200 150 20 Coal, coke and coal gases Figure 4. Effective tax rates on energy use in national currency and EUR/tCO<sub>2</sub>, 2015, excluding taxes on electricity output and carbon emissions from biomass ELECTRICITY Natural gas 192 000 RESIDENTIAL & T Coal, coke and coal gases Natural gas AGRICULTURE & FISHING Oil products (predominantly) 128000 Euel tax credit or tax expenditure Coal & coke INDUSTRY Natural gas 64 000 Oil products OFF-ROAD Oil products (predominantly), natural gas Natural gas and LPG Tax rate – TRY per tonne of CO<sub>2</sub> 1 200 **r** Tax ROAD Diesel Gasoline 1 000 800 009 400 0 200

## 2. Country-specific notes

This note describes the taxation of energy use in Turkey. 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

The main taxes on energy use in Turkey are the following:

- The Special Consumption Tax applies to oil products and natural gas across all sectors. The rates at which this tax applies differ across fuels and different users, as described below.
- Except natural gas, the fuels used to generate electricity are untaxed. Electricity output is taxed.

The Electricity Consumption Tax is quoted on an *ad valorem basis*. Electricity sales prices for industrial and residential users were used to calculated tax rates per MWh. Households pay electricity consumption tax at 5% of their bill, the rate for industrial and commercial users is 1%.

These taxes are included in the energy tax profiles of Turkey, but the tax on electricity output is only included when separately indicated (see below). 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 Turkey's energy use¹ to calculate effective tax rates on energy use (in TRY/TJ and EUR/TJ) or CO₂ emissions from energy use (in TRY/tCO₂ 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) for Turkey 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 at the highest rates, both in terms of the fuels' energy and carbon content. Within the road sector, gasoline is taxed at the highest effective tax rate, diesel is taxed at a lower rate in terms of TJ and in terms of CO<sub>2</sub>. LPG and natural gas are taxed at lower statutory and effective rates. Biodiesel is taxed at a lower statutory rate than its fossil fuel equivalent, biogasoline is untaxed.

<sup>1.</sup> 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.

- The tax rate on gasoline for more than 98 octanes is used in the analysis of energy use and taxation in Turkey, on the assumption that this fuel accounts for the majority of gasoline use. It is also assumed that diesel with sulphur content below 0.05% accounts for the majority of diesel use. These assumptions have been arrived at in consultation with national delegates.
- Fossil fuels used in the **off-road** sector are taxed, but at lower effective rates than fuel use in road transport. Fuels used for domestic navigation and aviation purposes are untaxed
- Fossil fuels used in the **industry**, **residential** and **commercial** and **agriculture** sectors are taxed, with the exception of coal and coke products.
- Electricity output is taxed, natural gas used to generate electricity is also taxed.

The Electricity Consumption Tax is charged based on the prices of electricity output. The rates are 1% for industrial and 5% for residential users, and they were converted into rates per MWh by national delegates. To perform this exercise, electricity sales prices were obtained from tariffs published in the website of Energy Market Regulatory Authority of Turkey.

#### Assumptions and caveats

The tax rates on fuel oil used for heating and process purposes differ according to sulphur content. In the absence of information on the proportions of fuel oil use at different grades, the simple average rate on fuel oil was included in the *Taxing Energy Use* data.

### Reported tax expenditures and rebates

The following tax expenditure is included in the *Taxing Energy Use* data for Turkey:

Fuels used for domestic aviation and domestic navigation are untaxed.

Furthermore, a full tax reduction applies to petroleum products used for oil exploration and production activities, as well as to fuels used by vehicles carrying export goods. Due to a lack of further information on the corresponding tax bases, these reduced rates are not included in the graphs.

## 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 general sources included in OECD (2018) and consultation with national delegates, no country-specific sources were used.