Taxing Energy Use 2019: Country Note – Estonia

This note explains how Estonia taxes energy use. The note shows the distribution of effective energy tax rates – the sum of fuel excise taxes, explicit carbon taxes, and electricity excise taxes, net of applicable exemptions, rate reductions, and refunds – across all domestic energy use. It also details the country-specific assumptions made when calculating effective energy tax rates and matching tax rates to the corresponding energy base

The note complements the Taxing Energy Use 2019 report that is available at http://oe.cd/TEU2019. The report analyses where OECD and G20 countries stand in deploying energy and carbon taxes, tracks progress made, and makes actionable recommendations on how governments could do better to use taxes to reach environmental and climate goals.

The general methodology employed to calculate effective energy tax rates and assign tax rates to the energy base is explained in Chapter 1 of the report. The official energy tax profile for Estonia can be found in Chapter 2 of the report. Chapter 3 additionally shows effective carbon tax rates per tonne of CO₂, and presents the corresponding carbon tax profiles for all countries. The report also contains StatLinks to the official data.

Structure of energy taxation in Estonia

Energy and carbon taxes in Estonia are levied within the framework of the 2003 European Union (EU) Energy Tax Directive, which sets minimum rates for the taxation of energy products in EU member states. Within this framework, as at 1 July 2018, the main taxes on energy use in Estonia are the following:

- The Excise Duty on Fuels (*Kütuseaktsiis*) applies to liquid, solid and gaseous fossil fuels and liquid biofuels, including oil shale;
- The Excise Duty on Electricity (*Elektriaktsiis*) also applies to electricity output.
- Estonia also has a carbon tax of EUR 2 per tonne of CO₂ that applies to all CO₂ emissions from thermal energy producers, with the exception of biofuel emissions.

Estonia participates in the EU emissions trading system (ETS) (OECD, 2018_[1]). Permit prices, which apply in addition to the carbon tax, are not shown in the energy tax profiles.

Effective tax rates on energy use in Estonia

Tax rates can differ across energy products and users, as described below. Figure 1 provides an overview of how energy and CO₂ taxes apply to different energy categories across the economy. The remainder of this document discusses details on tax rates and tax bases for each of the six economic sectors.

Explicit carbon tax Fuel excise tax Electricity excise tax Road Industry Electricity Agr. & fish & comm. 25 Res. Other electricity and heating sources EUR per GJ and other solid fossil fuels 15 10 nse Other fossil fuels energy i Natural gas 5 Soal Diesel Coal and other solid fossil fuels 0 120 000 140 000 Energy use in TJ 160 000 20 000 40 000 60 000 80 000 200 000 100 000 180 000 220 000 240 000

Figure 1. Effective tax rates on energy use by sector and energy category

Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018_[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the bottom) that represent less than 1% of a country's energy consumption are grouped into "misc. energy use" and may not be labelled.

Road

Figure 2 shows that within the road sector, gasoline is taxed at a higher effective tax rate than diesel. Natural gas is also taxed. Biofuels are taxed at the same statutory rates as their fossil fuel equivalents, which translates into higher effective tax rates according to the TEU methodology, given that their energy content per litre is lower.

Explicit carbon tax Fuel excise tax Electricity excise tax Gasoline Diesel 25 20 EUR per GJ 10 5 Gasoline (propellant, local heating, stationary m 0 15 000 Energy use in TJ 5 000 20 000 30 000 10 000 25 000

Figure 2. Effective tax rates on energy use in the road sector

Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018_[2]), World Energy Statistics and Balances. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled. Similarly, rate labels (shown at the bottom) are grouped into "misc. rates" using the same threshold.

Off-road

Fossil fuels used in the off-road sector are untaxed when used for commercial navigation ("marine"), commercial aviation, or rail, as shown in Figure 3.¹ Fossil fuels used for other purposes are generally taxed at their propellant rates.

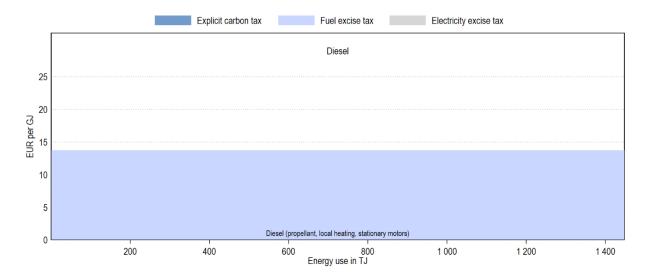


Figure 3. Effective tax rates on energy use in the off-road sector

Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018_[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled. Similarly, rate labels (shown at the bottom) are grouped into "misc. rates" using the same threshold.

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¹ Diesel and kerosene used in private pleasure craft and private planes are taxed (not modelled in TEU due to a lack of consumption data).

Industry

Fossil fuels used in industry are generally subject to fuel excise taxes unless the conditions for non-taxation of the EU Energy Tax Directive are fulfilled. Thermal energy producers are additionally subject to the carbon tax. Fuels used in combined heat and power (CHP) plants that produce electricity and district heating are not subject to input taxes as far as the electricity generation goes. Fuels used for the production of heating in CHP plants are taxed. Biofuels are not taxed.

Electricity from industrial cogeneration is subject to the general electricity tax (called "electricity excise tax" in TEU) (see electricity section below).

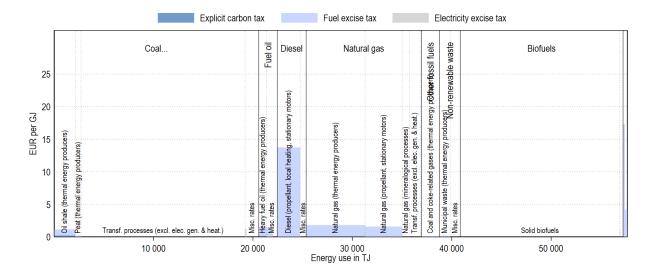


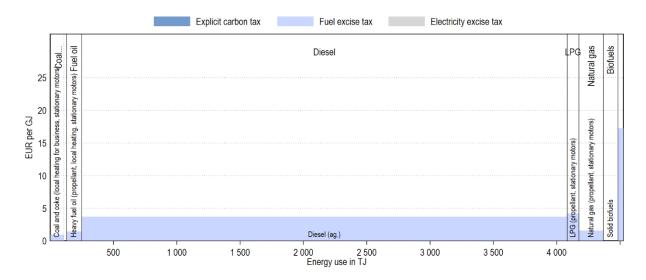
Figure 4. Effective tax rates on energy use in the industry sector

Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018_[2]), World Energy Statistics and Balances. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled. Similarly, rate labels (shown at the bottom) are grouped into "misc. rates" using the same threshold.

Agriculture and fisheries

Fossil fuels used in agriculture are generally taxed (Figure 5). Fishing fuels are not taxed. Biofuels are not taxed.

Figure 5. Effective tax rates on energy use in the agriculture & fisheries sector



Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018_[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled. Similarly, rate labels (shown at the bottom) are grouped into "misc. rates" using the same threshold.

Residential and commercial

Fossil fuel use in the residential and commercial sector (Figure 6) are taxed. Solid biofuels are not taxed. Notice that TEU reports the energy use associated with electricity and district heating consumption in the industry and electricity sector as that is where the primary energy consumption occurs.

Explicit carbon tax Fuel excise tax Electricity excise tax Diesel 🖁 Natural gas Biofuels 25 motors) 20 EUR per GJ stationary 15 (propellant, local hear 10 Solid biofuels 6 000 2 000 10 000 16 000 18 000 20 000 22 000 4 000 8 000 12 000 14 000

Figure 6. Effective tax rates on energy use in the residential & commercial sector

Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018_[2]), World Energy Statistics and Balances. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled. Similarly, rate labels (shown at the bottom) are grouped into "misc. rates" using the same threshold.

Energy use in TJ

Electricity

Figure 7 shows how the electricity sector, as defined in TEU, is taxed in Estonia. The fuels used to generate electricity are not taxed, but the electricity sector is covered by the EU ETS (OECD, 2018_[1]). The use of electricity, on the other hand, is subject to an output tax.

Explicit carbon tax Fuel excise tax Electricity excise tax Biofuels Other fossil fuels Coal. Other elec. & heat, sources 25 20 EUR per GJ tricity (standard rate)
isf. losses (primary energy to elec.)
. rates
. rates use & distribution losses (elec.) Electricity (standard rate ectricity (standard rate) 10 Own use & distribution Electricity (exports) Electricity (exports) 5 20 000 80 000 100 000 40 000 60 000 120 000 Energy use in TJ

Figure 7. Effective tax rates on energy use in the electricity sector

Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018_[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled. Similarly, rate labels (shown at the bottom) are grouped into "misc. rates" using the same threshold.

References

IEA (2018), "Extended world energy balances", *IEA World Energy Statistics and Balances* (database), http://dx.doi.org/10.1787/data-00513-en (accessed on 16 October 2018).

[2]

OECD (2018), Effective Carbon Rates 2018: Pricing Carbon Emissions Through Taxes and Emissions Trading, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264305304-en.

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