

Taxing Energy Use 2019: Country Note - United Kingdom

This note explains how the United Kingdom 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 the United Kingdom 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 United Kingdom

Energy taxes in United Kingdom 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 United Kingdom are the following:

- Climate Change Levy (CCL) applies to solid fossil fuels, LPG, natural gas and electricity when supplied to business and public sector users.
- Fuel Duty, classified as a “fuel excise” according to the TEU methodology, applies to liquid fuels (including bioethanol and biodiesel), as well as to LPG and natural gas (including biogases) when used as motor and heating fuels.

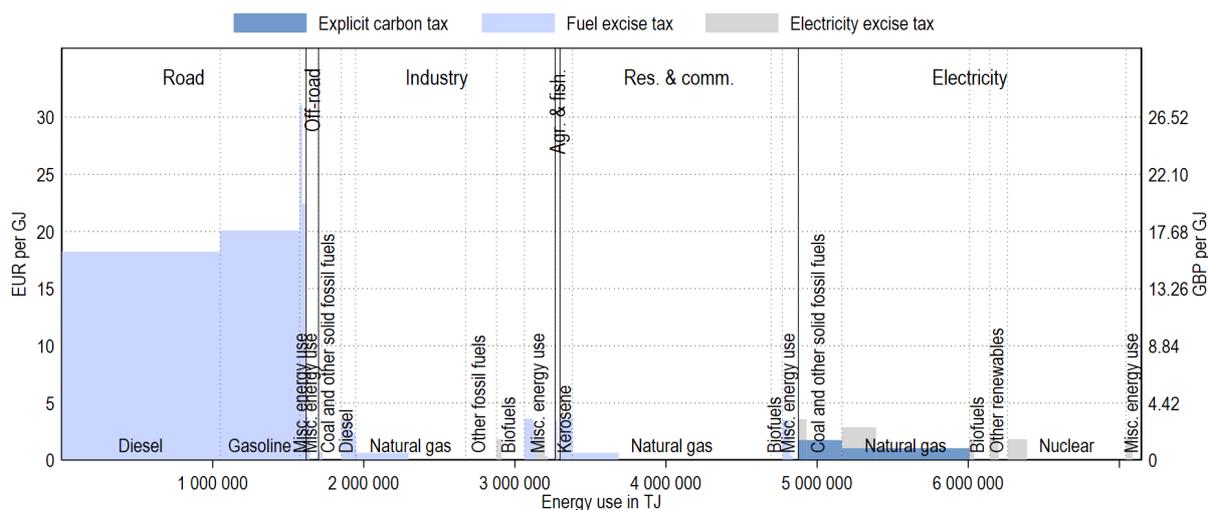
The United Kingdom participates in the EU emissions trading system (ETS) (OECD, 2018^[1]). Permit prices, which apply in addition to energy and carbon taxes, are not shown in the energy tax profiles.

- The Carbon Price Floor (CPF) – implemented through Carbon Price Support (CPS) rates of CCL and Fuel Duty – is a domestic instrument which sits alongside EU ETS and has the effect of setting a floor price for carbon used in electricity generation. The CPS, which is classified as a carbon tax according to the TEU methodology, is set at a nominal rate of GBP 18.00 per tonne of CO₂.

Effective tax rates on energy use in United Kingdom

Tax rates can differ across energy products and users, as described below. Figure 1 provides an overview of how energy and carbon 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.

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

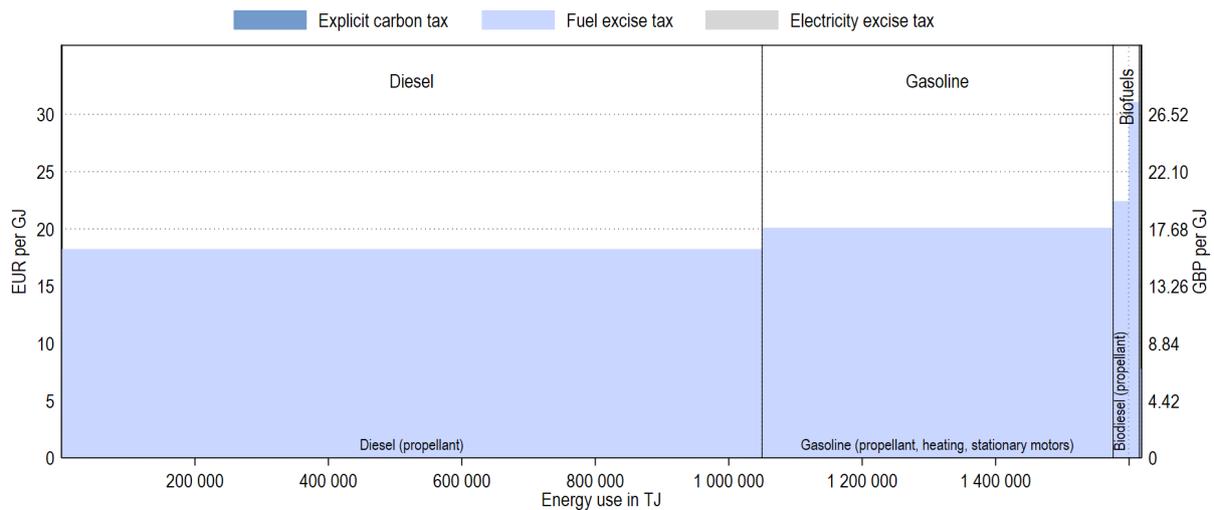


Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the bottom) that represent less than 1% of a country's energy consumption are grouped into "misc. energy use" and may not be labelled.

Road

Figure 2 shows that within the road sector, gasoline is taxed at a higher effective tax rate per GJ than diesel, even though both are taxed at the same statutory rate per litre. The reason the effective rate is higher for gasoline is that its energy content per litre is lower. For the same reason, biofuels, which are also taxed at the same statutory rate, are shown to have a higher effective tax rate per GJ than their fossil fuel equivalents.

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



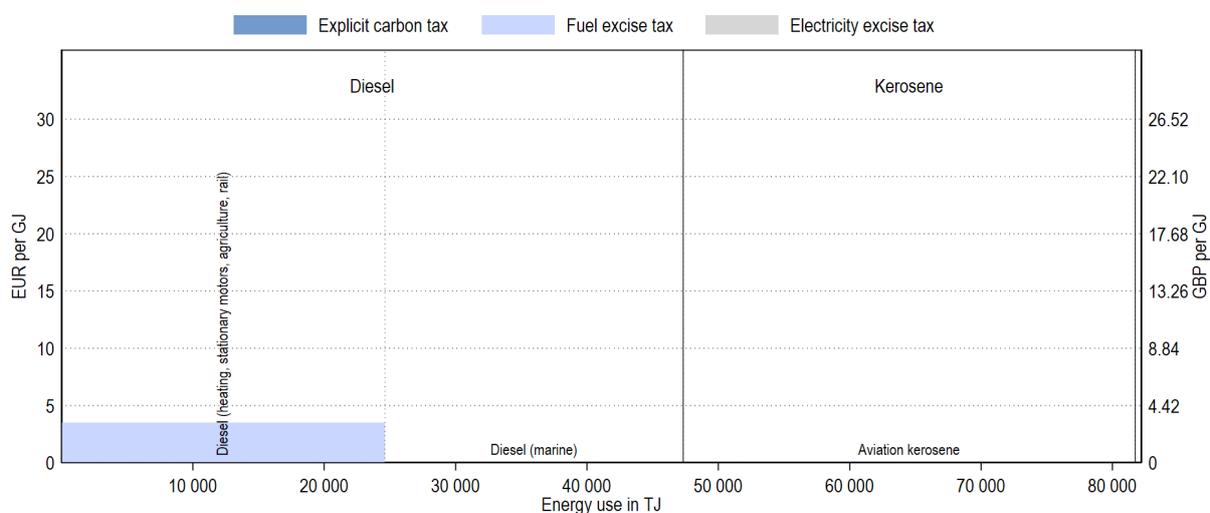
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Off-road

Diesel used for railway transport is taxed. Diesel used in commercial navigation (“marine”) is relieved from Fuel Duty and consequently shown as untaxed. Commercial aviation fuels are untaxed. Diesel and kerosene used in private pleasure craft and private planes are taxed, but the associated use is very low and not visible in the figure.

There is a limited exemption from CCL for energy products used in transport in certain circumstances – mainly this relates to public transport.

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



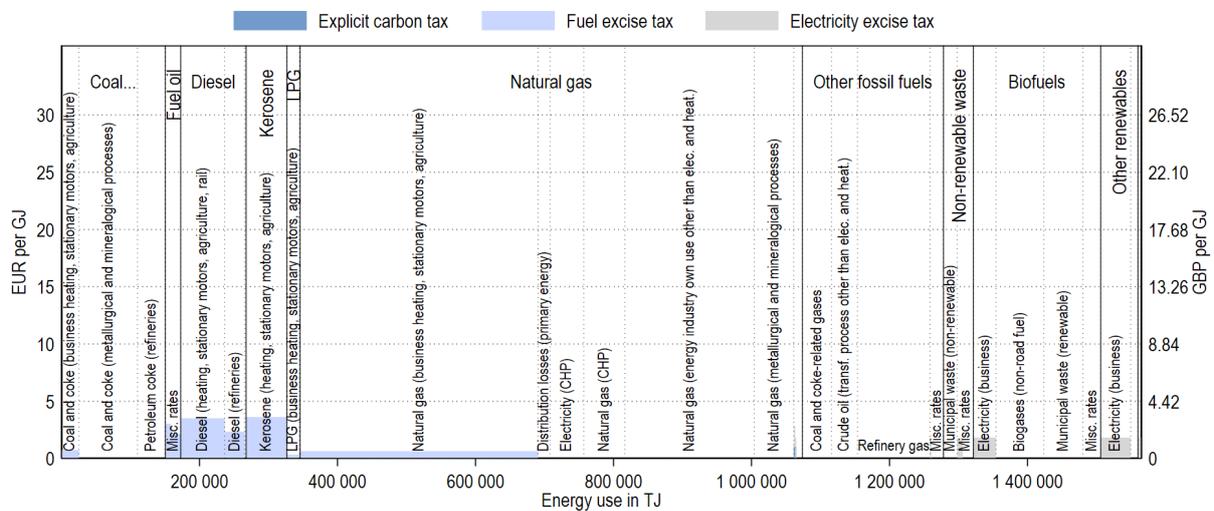
Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector’s energy consumption are grouped into “misc. energy use” and may not be labelled.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

Industry

Fossil fuel use in industry is generally taxed. However, CCL does not apply to solid fuels, LPG, and natural gas, and when supplied for use in metallurgical and mineralogical processes or for non-fuel uses. Fuels subject to the Fuel Duty benefit from a refund equivalent to one-third of the excise duty paid when used for energy transformation purposes. The treatment of fuels used by combined heat and power (CHP) plants is complex but is designed to recognise the environmental benefits of such plants where they are of high quality.

Electricity from autogenerator electricity plants is generally subject to the electricity tax (called “electricity excise tax” in TEU)

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

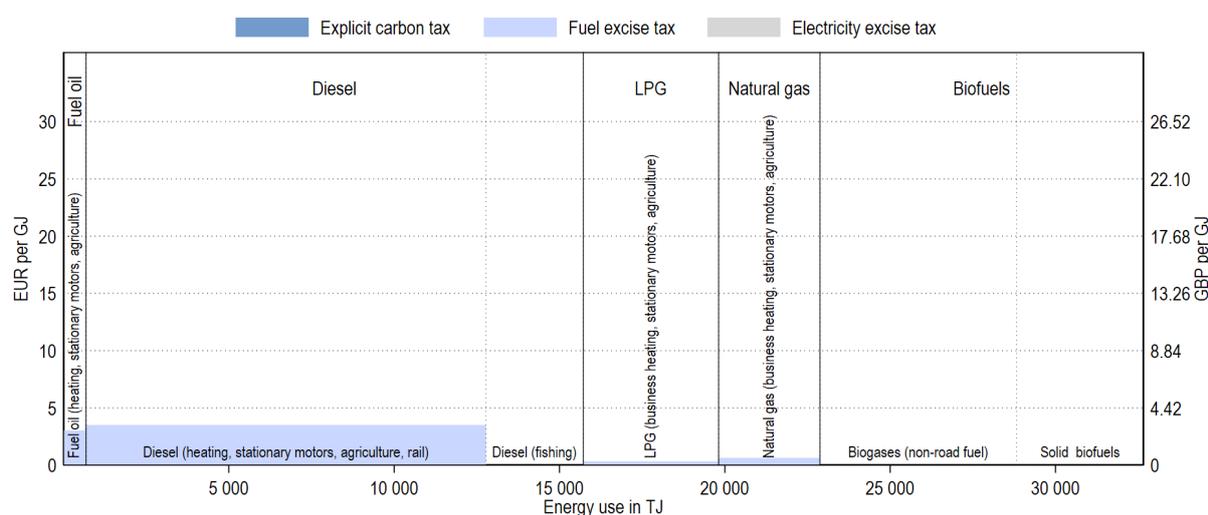


Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector’s energy consumption are grouped into “misc. energy use” and may not be labelled. 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 taxed. Fossil fuels used for fishing are untaxed. Biofuels are not taxed.

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



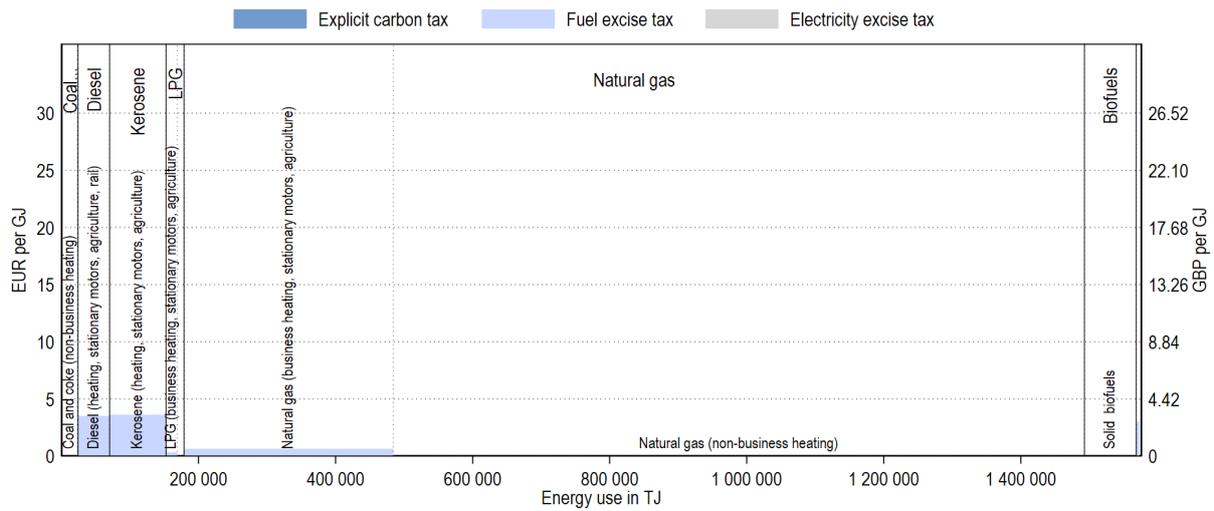
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Residential and commercial

Coal and other solids fossil fuels, LPG, natural gas and electricity supplied for non-business (household) use are not subject to CCL. Other fossil fuel use is taxed. Biofuels are untaxed.

Notice that TEU reports the energy use associated with electricity consumption in the industry and electricity sector as that is where the primary energy consumption occurs.

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



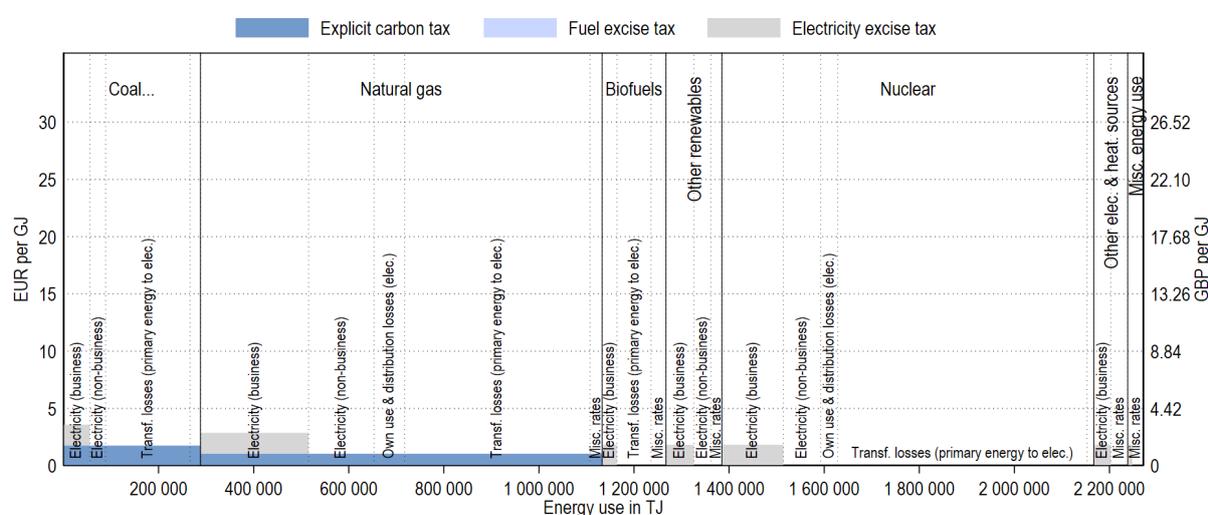
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Electricity

Figure 7 shows how the electricity sector, as defined in TEU, is taxed in United Kingdom. The CPS, classified as a carbon tax according to the TEU methodology, applies to fossil fuels used for electricity generation. In addition, the electricity sector is covered by the EU ETS (OECD, 2018^[1]).

CCL applies to electricity supplied to businesses and the public sector subject to certain exemptions.¹ The non-business use of electricity as well as the electricity industry's own use and transmission and distribution losses are not subject to the electricity tax.

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>. [1]

¹ Originally, electricity generated from renewables other than hydro, including biofuels and waste was not taxed, but this exemption was phased out from 1 August 2015.