

## *Taxing Energy Use 2018*

### **Luxembourg**

This note describes the taxation of energy use in Luxembourg. 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 Luxembourg:

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

Figure 2: Effective tax rates on energy use in EUR/tCO<sub>2</sub>, 2015, including electricity output taxes and energy use from biomass

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

Figure 4: Effective tax rates on energy in 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 Luxembourg

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

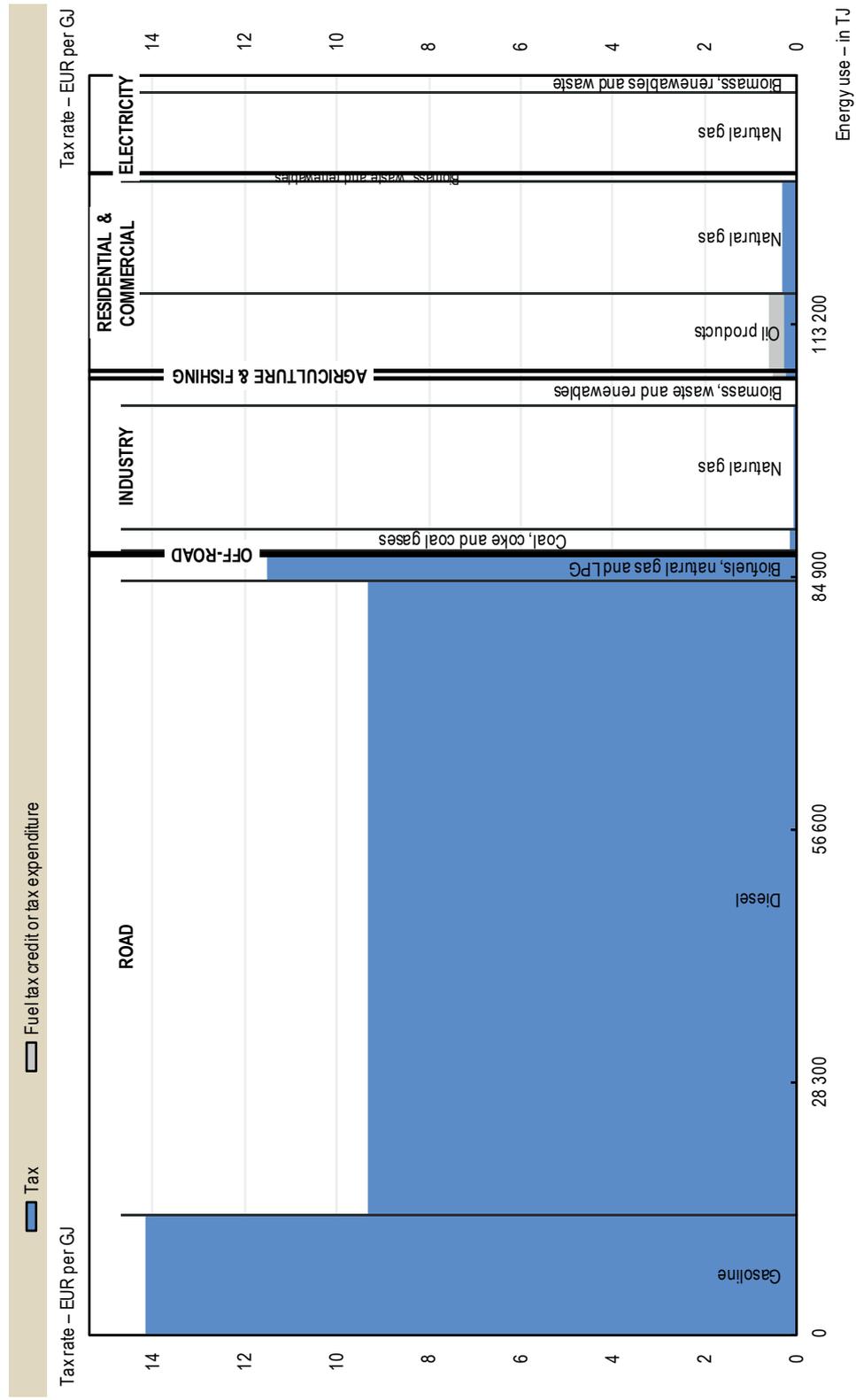


Figure 2. Effective tax rates on energy use in EUR/tCO<sub>2</sub>, 2015, including electricity output taxes and carbon emissions from biomass

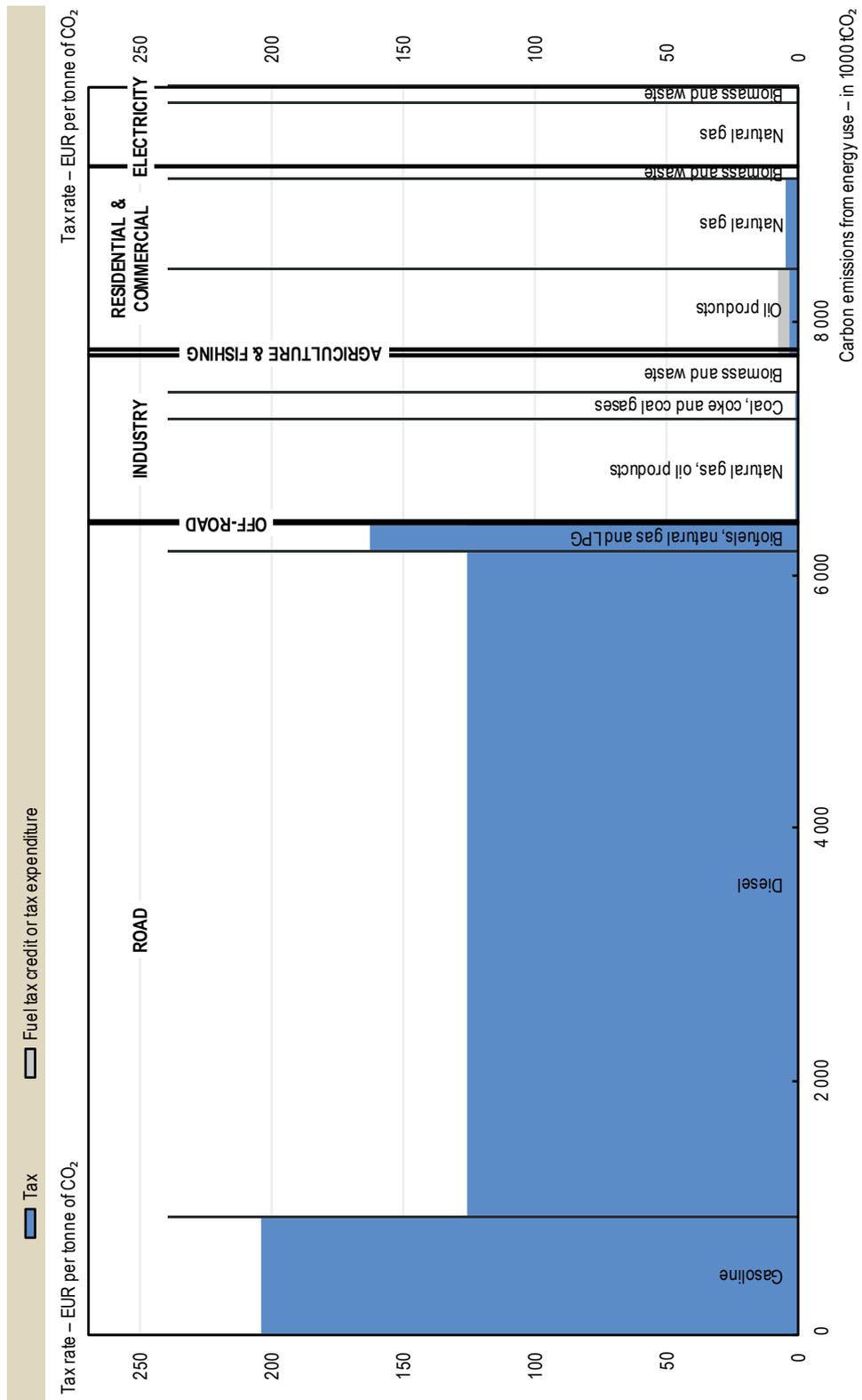


Figure 3. Effective tax rates on energy use in EUR/tCO<sub>2</sub>, 2015, excluding taxes on electricity output, including carbon emissions from biomass

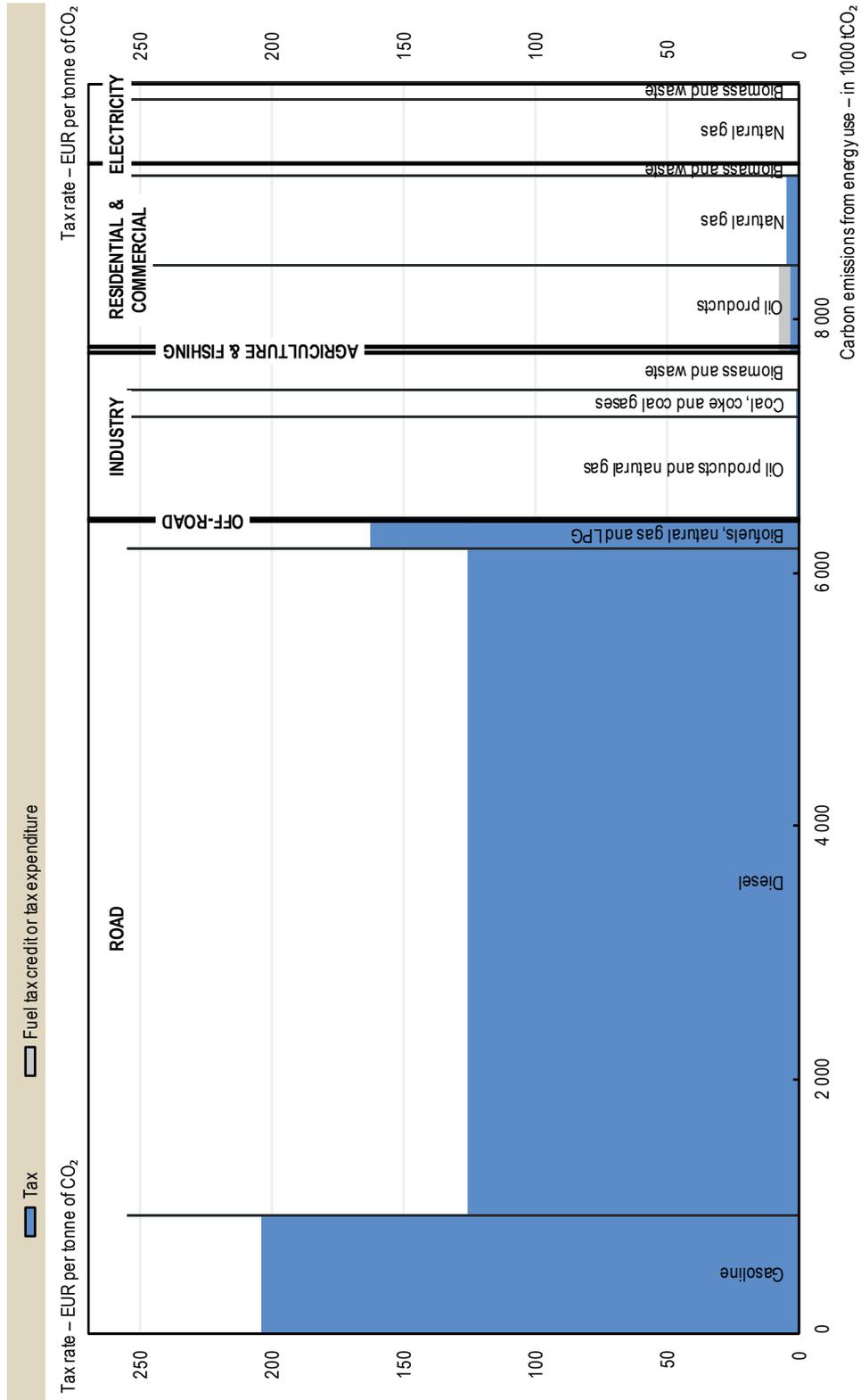
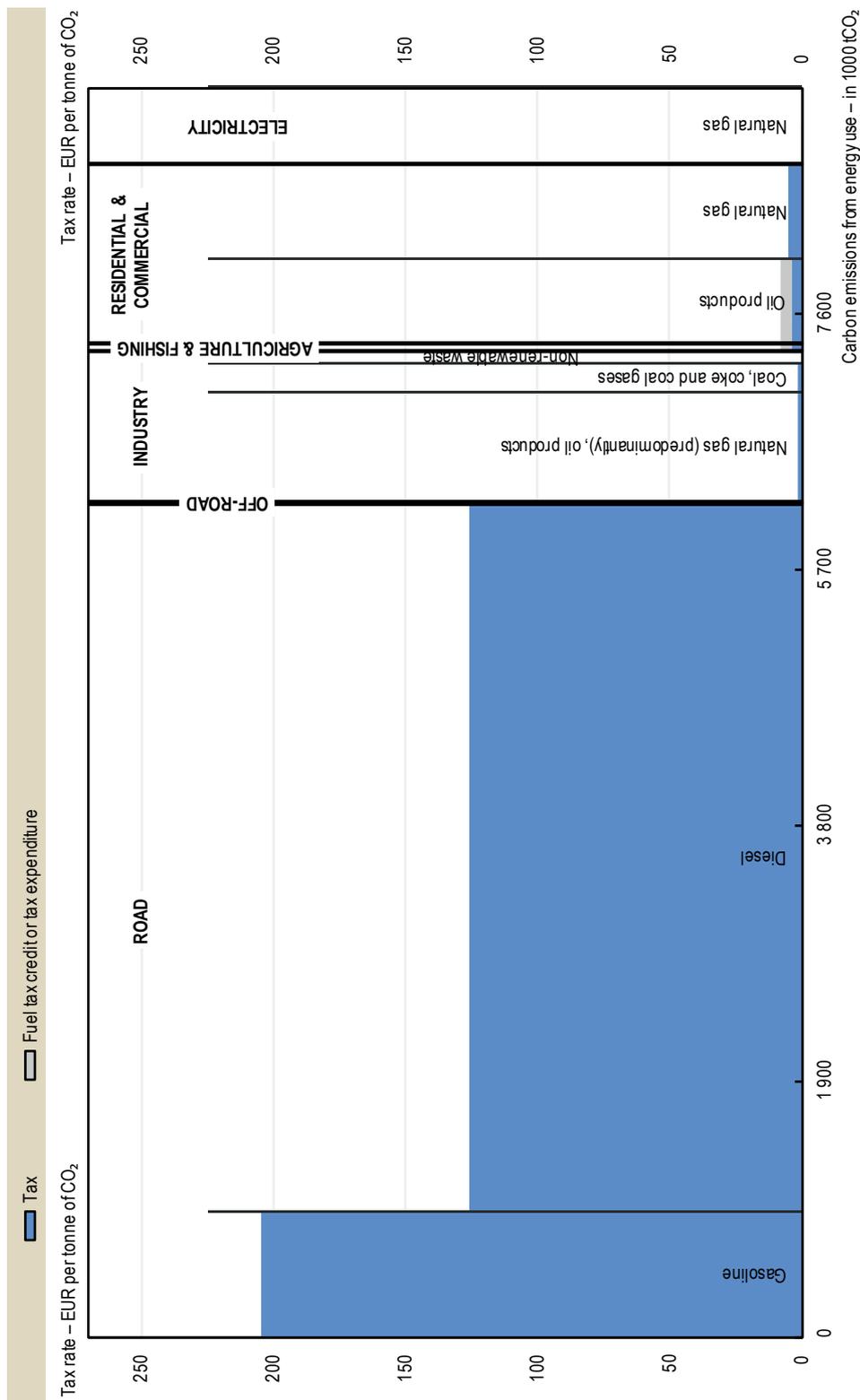


Figure 4. Effective tax rates on energy use in EUR/tCO<sub>2</sub>, 2015, excluding taxes on electricity output and carbon emissions from biomass



## 2. Country-specific notes

This note describes the taxation of energy use in Luxembourg. 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).

Luxembourg participates in the European Union emissions trading system (ETS), not shown in the energy tax profiles.<sup>1</sup>

### *Energy and carbon taxes*

Energy and carbon taxes in Luxembourg are levied within the framework of the 2003 EU Energy Tax Directive, which sets minimum rates for the taxation of energy products in member states. Within this framework, the main taxes on energy use in Luxembourg are the following:

- An energy tax applies to oil products, natural gas and coal. Statutory tax rates on fuels are higher when used for propellant use than for heating and process purposes. Fuels used for electricity generation are untaxed.<sup>2</sup>
- Electricity consumption is taxed at a lower rate when used in the industry sector and in metallurgical processes than when used in the residential sector.

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

These taxes are included in the energy tax profiles of Luxembourg, 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 Luxembourg's energy use<sup>3</sup> to calculate effective tax rates on energy use (in EUR/TJ) or CO<sub>2</sub> emissions from energy use (in EUR/tCO<sub>2</sub>). Energy use and the CO<sub>2</sub> 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 Luxembourg 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

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1. The OECD's *Effective Carbon Rates* contains information on emissions trading systems.  
 2. The "climate changing tax" is included into the tax rates of gasoline and diesel at EUR 20 per 1000 litres.  
 3. 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.

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 by far, 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>. Due to transit traffic taking advantage of Luxembourg's excise tax being lower than that in neighbouring countries, diesel accounts for more than 80% of energy use and carbon emissions from energy use of the road sector, and for more than 66% of the energy use and carbon emissions from energy use. Biofuels are taxed at the same rates as their fossil fuel equivalents. Natural gas and LPG for road use are also taxed, but at substantially lower rates than gasoline and diesel.
- Fuels used in **offroad transport** are taxed at the same rates as fuels for road use.
- Except for biomass and waste, all fuels used in the **industry** and the **residential and commercial** sector are taxed, but rates are substantially lower for fuels used in industry. The tax rates applied to natural gas used in households vary by consumption volume. Natural gas used for the cogeneration of heat and electricity is untaxed.
- Fuels used in **agriculture and fishing** are taxed at the same rate as when used for heating purposes in households.
- In Luxembourg, the fuels used to generate **electricity** are not taxed. **Electricity output** (per MWh) is taxed, electricity used by industry is taxed at lower rates than electricity use in households.

### *Assumptions and caveats*

- Since data on natural gas consumption volumes in the commercial sector has not been available, the highest applicable tax rate has been included in the profiles.

Where not separately indicated, these assumptions have been arrived at in consultation with national officials, or otherwise are based on previous *Taxing Energy Use* publications.

### *Reported tax expenditures and rebates*

Luxembourg does not report any tax expenditures with respect to the taxes on energy use included in the *Taxing Energy Use* database.

## *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 the *Taxing Energy Use 2018* (OECD, 2018), and consultation with national delegates, the following country-specific source was used:

Tax Administration of Luxembourg (2015), “State Budget”, [www.impotsdirects.public.lu/content/dam/acd/ft/legislation/legi15/Memorial-A---N\\_-242-du-23-decembre-2015.pdf](http://www.impotsdirects.public.lu/content/dam/acd/ft/legislation/legi15/Memorial-A---N_-242-du-23-decembre-2015.pdf).