

Taxing Energy Use 2019: Country Note - New Zealand

This note explains how New Zealand 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 New Zealand 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 New Zealand

As at 1 July 2018,¹ the main taxes on energy use in New Zealand are the following:

- Excise taxes, earmarked to the National Land Transport Fund (NLTF), apply to gasoline, LPG and CNG, methanol when used for propellant purposes.
- As at 1 July 2018, gasoline and diesel used in the Auckland region is additionally subject to a surcharge of NZD 0.10 per litre.²
- In addition, several levies apply at very low rates, compared to the excise taxes. The Motor Vehicle (MV) levy additionally applies to gasoline when used for propellant purposes. The Petroleum or Engine Fuel Monitoring (PEFM) levy additionally applies to gasoline, as well as to automotive diesel and biodiesel. The Local Authorities Fuel (LAF) tax applies to gasoline and methanol, as well as to automotive diesel and biodiesel. The Gas Safety, Monitoring, and Energy efficiency (GSMEE) levy applies to natural gas used for purposes other than

¹ Changes to gasoline and diesel taxes after that date are not taken into account.

² Based on population data, TEU assumes that 35% of energy use in the road sector takes place in the Auckland region.

electricity generation and non-energy use in transformation processes (e.g. methanol production).

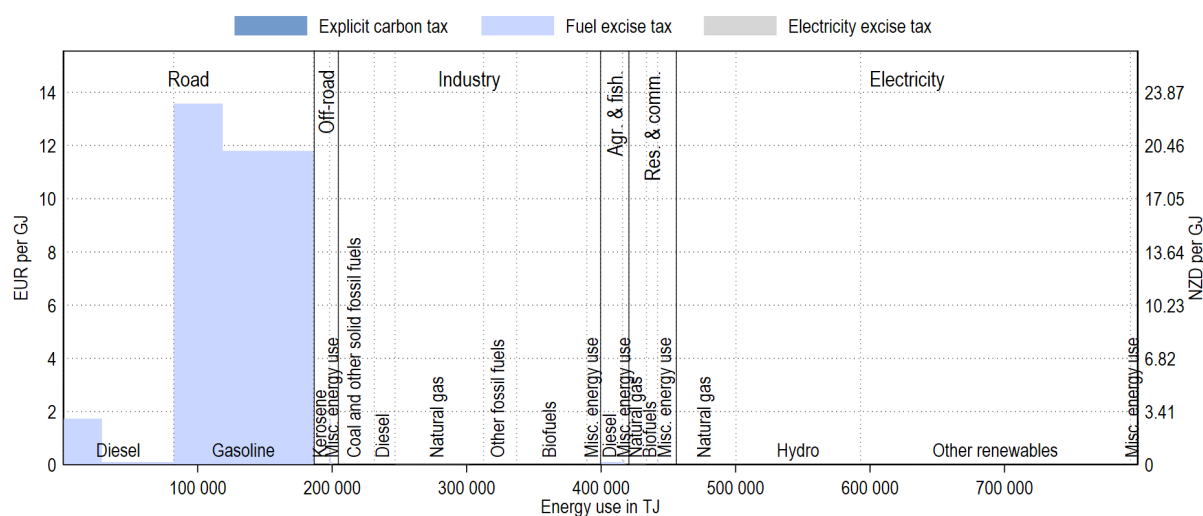
Road user charges, based on distance travelled and the type and weight of the vehicle, apply to the consumption of diesel for road use. Since road user charges affect different behavioural margins than a tax on fuel use (e.g. distance-based charges do not create a direct incentive to economise on fuel use), they are not included in the TEU database and do not show in the energy tax profiles for New Zealand.

New Zealand operates an emissions trading system that covers CO₂ and other greenhouse gas emissions from energy use (OECD, 2018^[1]). Permit prices are not shown in the energy tax profiles.

Effective tax rates on energy use in New Zealand

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

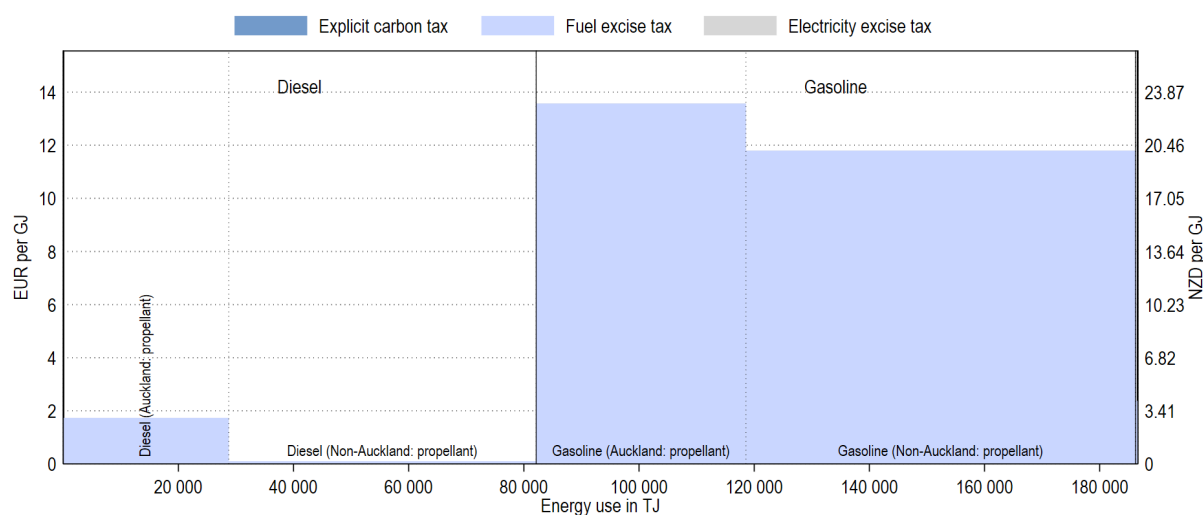


Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the bottom) that represent less than 1% of a country's energy consumption are grouped into "misc. energy use" and may not be labelled.

Road

Figure 2 shows that within the road sector, gasoline is taxed at a substantially higher effective tax rate than diesel. Notice that diesel vehicles are, however, all subject to distance-based road user charges, which is not included in TEU. Gasoline and diesel used in the Auckland region is additionally subject to a surcharge of NZD 0.10 per litre.

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

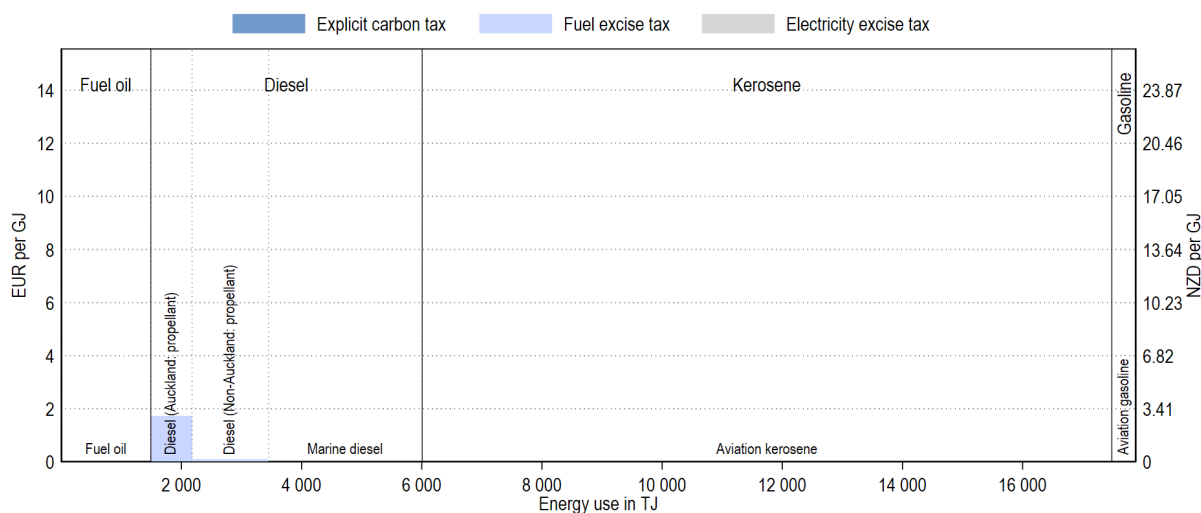


Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled.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

Off-road

In the off-road sector (Figure 3), diesel used for railway transport is taxed. Fuel oil is not taxed. Diesel used for domestic navigation (“marine”) is subject to the PEFM, albeit at a significantly lower rate than when used for road purposes, which is not discernible in the figure. Aviation fuels are not taxed.

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

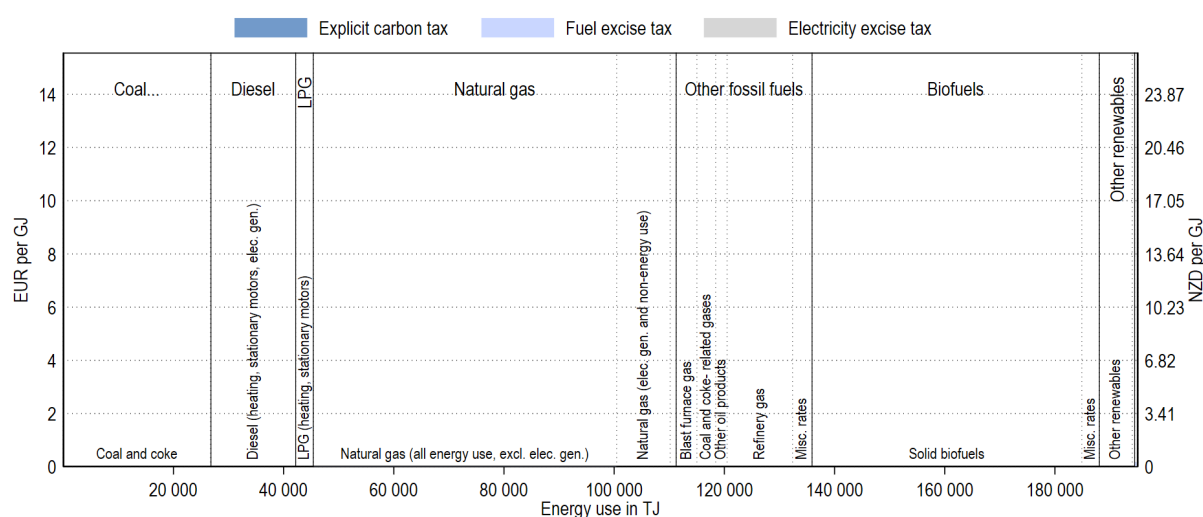


Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector’s energy consumption are grouped into “misc. energy use” and may not be labelled.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

Industry

Fossil fuels used in the industry are taxed in generally not taxed (Figure 4).³ Biofuels and other renewables are not taxed.

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



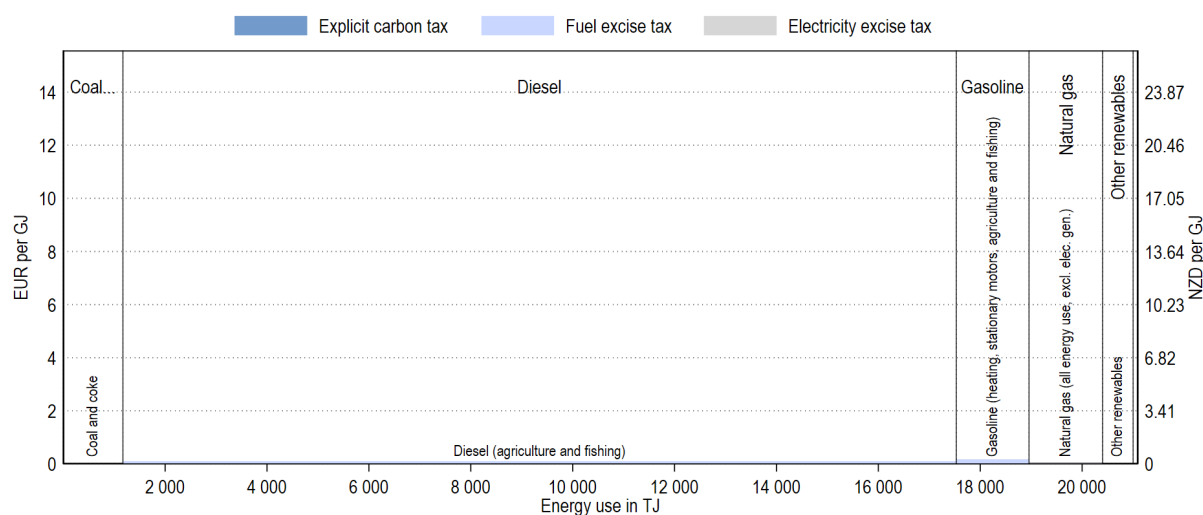
Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled.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

³ Gasoline use benefits from a full refund on the excise tax and the MV levy, and is thereby only subject to the PEFM levy and the LAF tax (New Zealand Transport Agency, 2018^[3]). Gasoline consumption in industry is however low and not visible in the figure.

Agriculture and fisheries

Coal and coke used in agriculture and fisheries sector is not taxed (Figure 5). Diesel and gasoline are taxed, albeit at low rates that are barely discernible in the figure (TEU uses the same scale for all sectors to facilitate inter-sectoral comparisons within countries). Natural gas is not taxed. Other renewables are not taxed either.

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



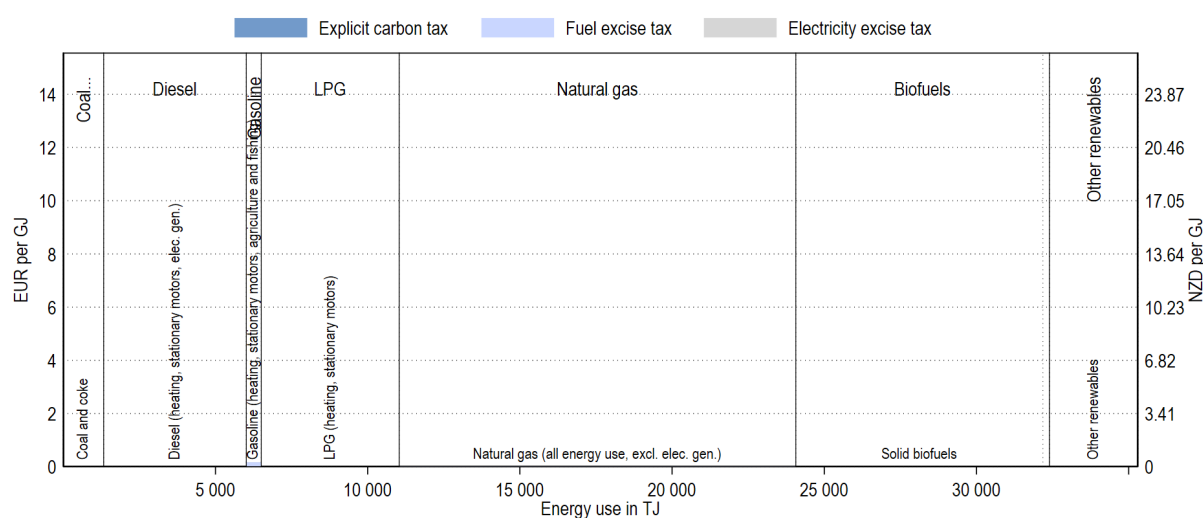
Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled.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

Residential and commercial

In the residential and commercial sector (Figure 6), fossil fuels are not taxed, with the exception of gasoline, which is subject to the PEFM levy and the LAF tax. Solids biofuels and other renewables are not taxed, as in the other sectors.

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

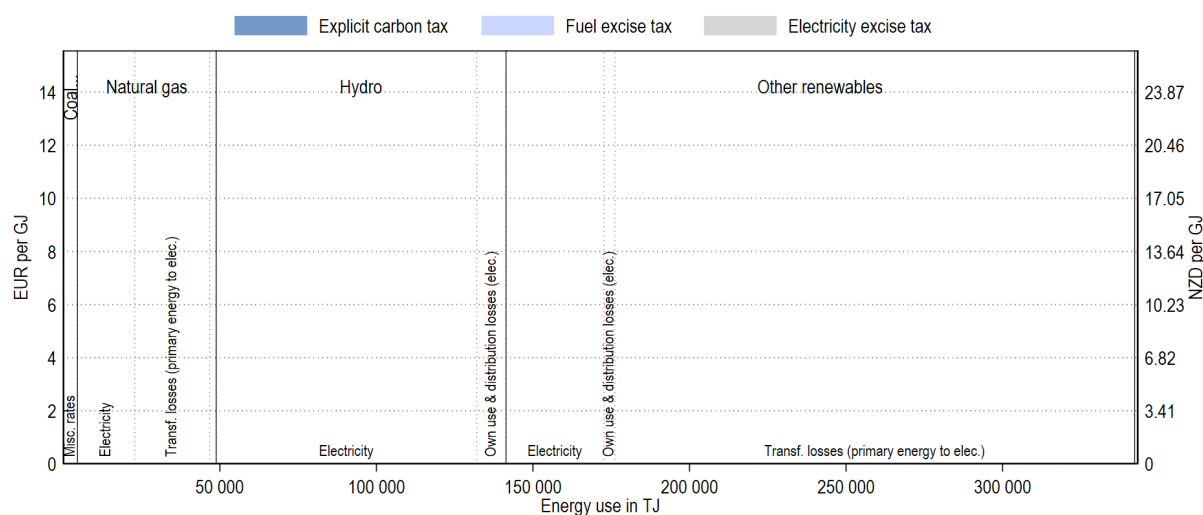


Note: Tax rates applicable on 1 July 2018. Energy use data is for 2016 and adapted from IEA (2018^[2]), *World Energy Statistics and Balances*. Energy categories (labelled at the top) that represent less than 1% of a sector's energy consumption are grouped into "misc. energy use" and may not be labelled.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

Electricity

Figure 7 shows that no specific taxes on energy use apply in the electricity sector.

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]
- New Zealand Transport Agency (2018), *Excise duty refunds*, <https://www.nzta.govt.nz/vehicles/licensing-rego/road-user-charges/ruc-rates-and-transaction-fees/excise-duty-refunds/>. [3]
- OECD (2018), *Effective Carbon Rates 2018: Pricing Carbon Emissions Through Taxes and Emissions Trading*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264305304-en>. [1]