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Rapu Mātauranga Hauora mo te Taiao – Aotearoa

Related indicators

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Number of motor vehicles

This factsheet presents an analysis of the the growth of the motor vehicle fleet in New Zealand, particularly regarding fuel types and electric vehicles.

Despite slower than usual growth in 2020 due to the COVID-19 pandemic, the New Zealand vehicle fleet continues to expand to record sizes, rising to just over 4.4 million in 2020.

The number of motor vehicles per capita remains high compared to other countries, at 795.6 vehicles per 1,000 people.

While electric vehicles still represent less than 1.0% of the light vehicle fleet, the introduction of the Clean Car Discount resulted in a near-threefold increase in the representation of EVs in monthly vehicle registrations.

The number of electric vehicles per 1,000 people increased in all parts of the country, though they are mostly concentrated in more urbanised regions like Wellington and Auckland.

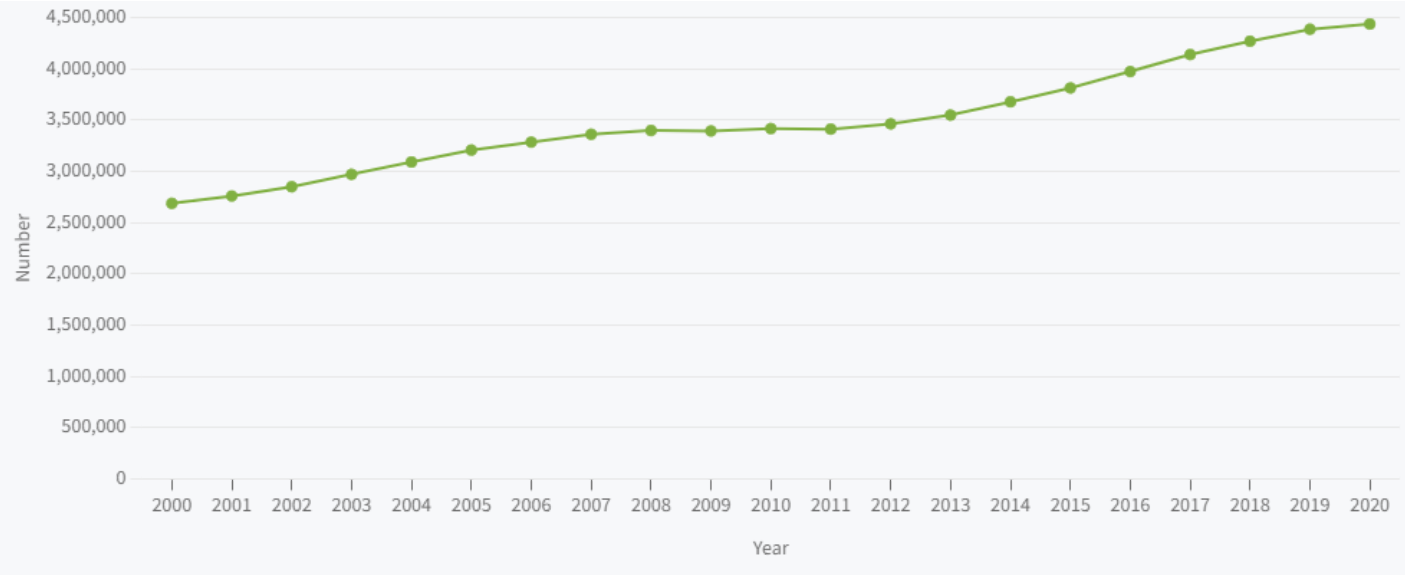
The vehicle fleet continues to grow

Since the start of the millennium, the number of motor vehicles in New Zealand has increased by 65.1%, rising from 2.7 million in 2000 to just over 4.4 million in 2020.

On average, the vehicle fleet grew by 87,500 vehicles each year. However, fleet growth accelerated from 2013/14 to 2019, gaining up to 160,000 extra vehicles annually.

The downturn in the global vehicle trade caused by the COVID-19 pandemic led to a smaller than average growth in 2020 - just 57,700 new vehicles entered the fleet compared to 117,000 in 2019.

Figure 1 Number of motor vehicles, 2000–20

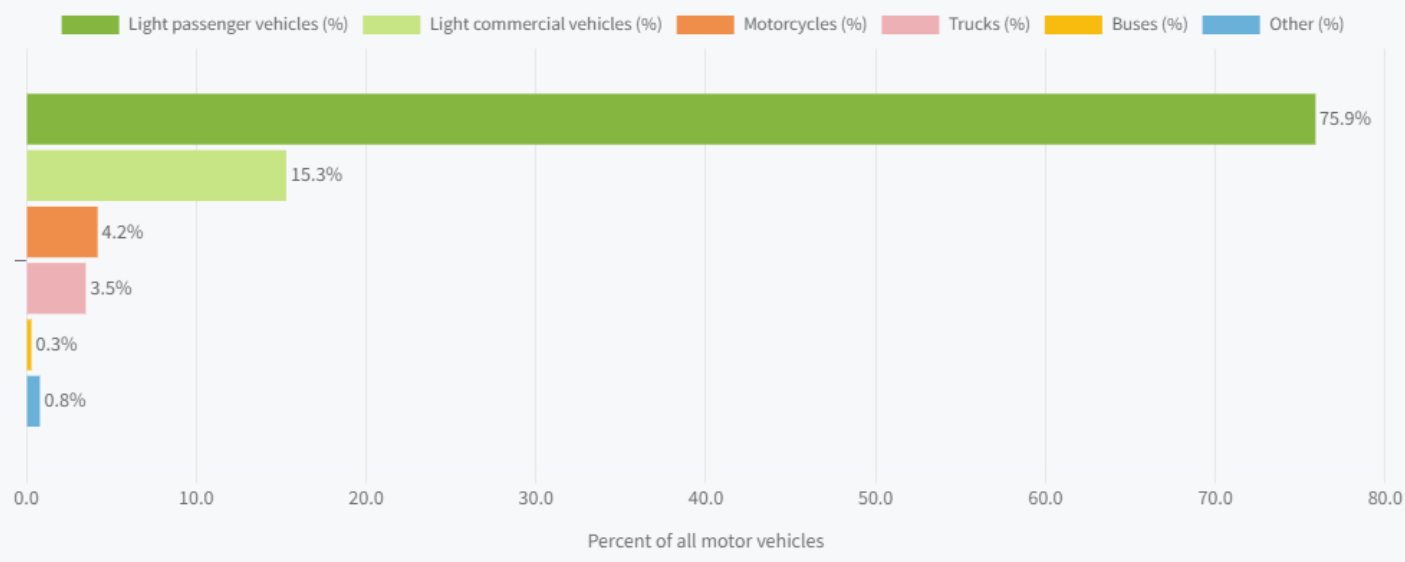


Source: Ministry of Transport, 2021

The vehicle fleet is almost exclusively composed of light vehicles

Light passenger vehicles continue to be the most common type of vehicle, with 3.4 million vehicles making up 75.9% of the total fleet in 2020 (Figure 2). Light commercial vehicles accounted for 15.3% of the fleet (678,600 vehicles). Overall, light vehicles made up 91.2% of the total vehicle fleet. The remainder consisted of 188,200 motorcycles (4.2% of the fleet), 155,900 trucks (3.5%) 11,400 buses (0.3%) and 35,000 vehicles of other classes (0.8%). These proportions have remained largely unchanged since 2000.

Figure 2 Vehicle types as a proportion of the combined vehicle fleet, 2020



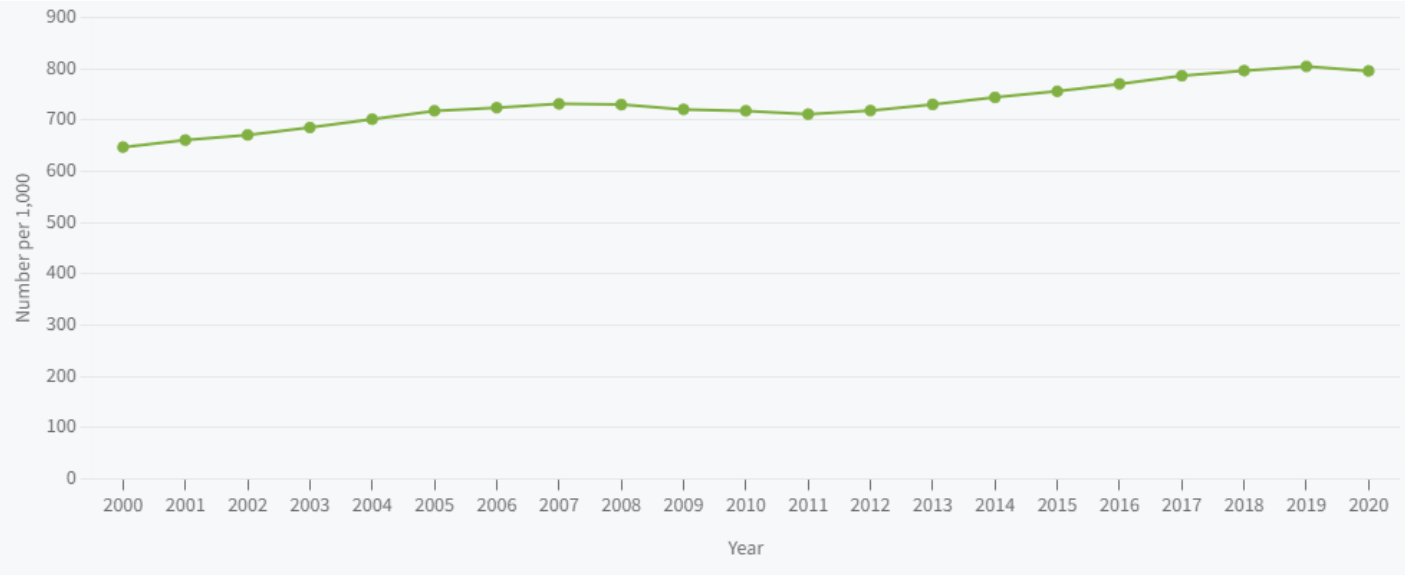
Note: Values may not add up to 100% due to rounding. 'Other' vehicles include mobile machines, special-purpose vehicles, tractors and agricultural equipment.

Source: Ministry of Transport 2021

Vehicle ownership per capita decreased for the first time in 10 years

Between 2000 and 2020, the number of light vehicles per capita increased from 647.0 to 795.6 vehicles per 1,000 people (Figure 3). Though this rate represents one of the highest levels of car ownership in the world (Ministry of Transport 2020), 2020 was the first time that ownership per capita decreased since 2011.

Figure 3 Light motor vehicle ownership per capita, 2000-20

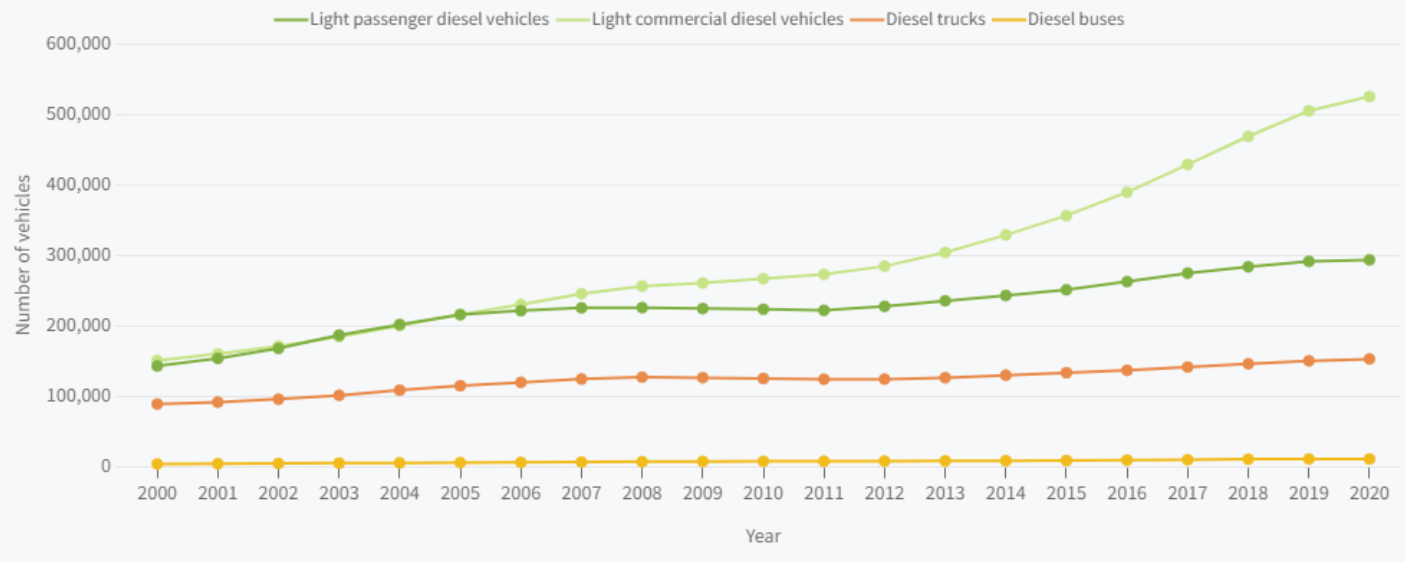


Source: Ministry of Transport 2021

Diesel vehicle numbers are still increasing

The number of diesel-powered vehicles has increased steadily since 2000, with the light commercial fleet growing the fastest (Figure 4).

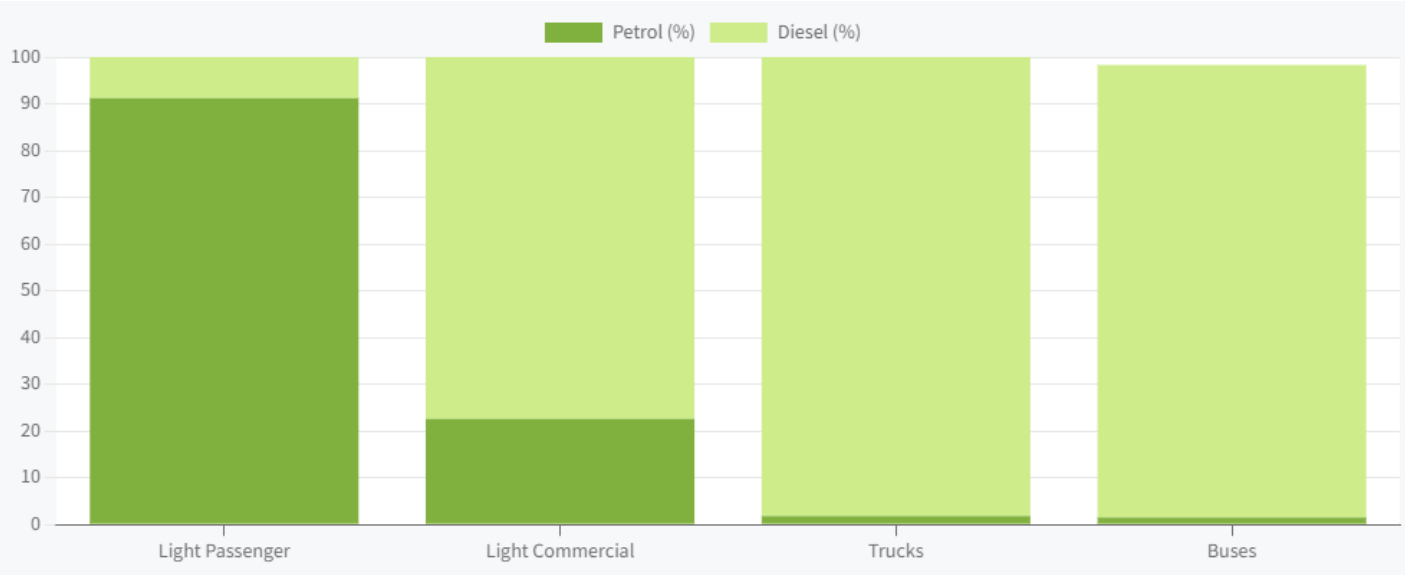
Figure 4 Number of diesel vehicles, by vehicle type, 2000–20



Source: Ministry of Transport 2021

In 2020, 20.3% (818,324 vehicles) of the total light vehicle fleet (excluding pure electric vehicles) was diesel-powered, mainly due to the prevalence of diesel-powered light commercial vehicles, 524,936 (77.4%) of which used diesel fuel (Figure 6). The proportion of diesel vehicles within the light commercial fleet has grown over the past 20 years – in 2000, only 43.4% of these were diesel-powered. The truck and bus fleets almost entirely consist of diesel vehicles, with petrol vehicles representing just 1.8% and 1.5% (respectively) of each vehicle type. A further 1.0% of the bus fleet (119 vehicles) was electric-powered.

Figure 5 Composition of vehicle fleets by fuel type



Source: Ministry of Transport 2021

Electric vehicles in New Zealand

Electric vehicles (EVs) are charged externally from a power source. There are two types of electric vehicles in New Zealand:

- Battery electric vehicles (BEVs) are 'pure' electric vehicles powered solely by batteries.
- Plug-in hybrid electric vehicles (PHEVs) use a combination of batteries and a conventional fuel-burning engine

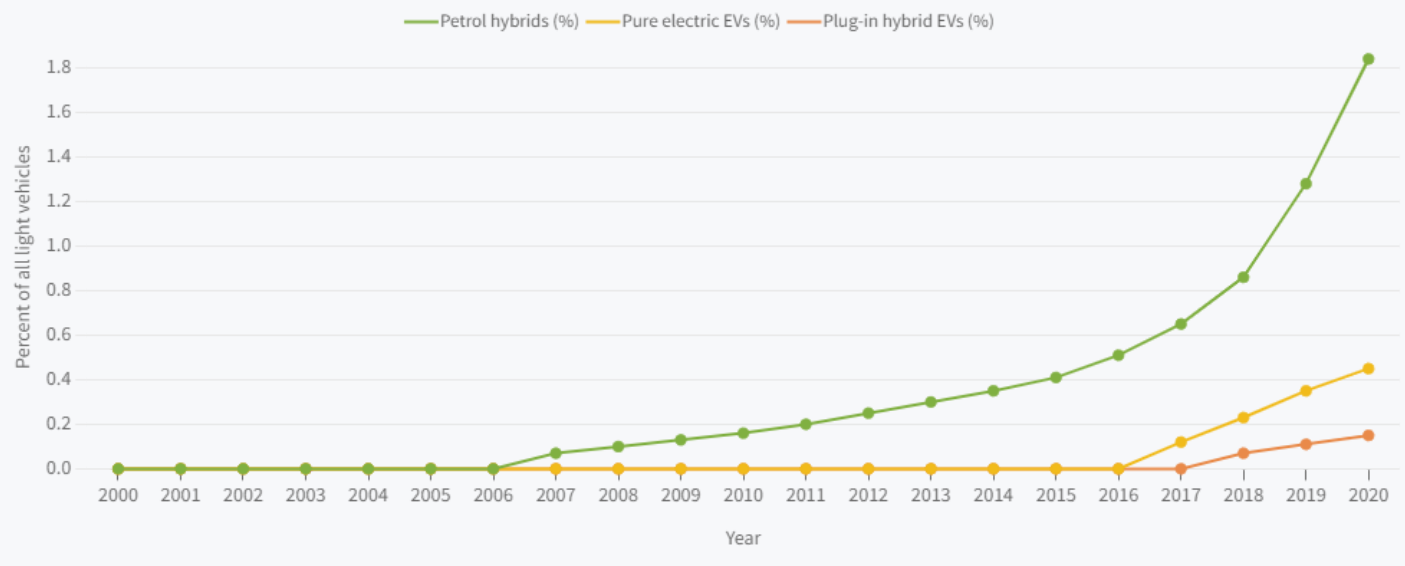
Petrol hybrid vehicles are not rechargeable from external electrical power sources and are not counted as 'electric vehicles' in the statistics used to produce this factsheet.

Electric vehicles are a growing minority

While the light vehicle fleet remains dominated by vehicles powered exclusively by fossil fuels, both EVs and petrol hybrids have grown as a proportion of the fleet, particularly since around 2016 (Figure 6). Nevertheless, as of 2020, petrol hybrids represented just 1.84% of the fleet, while BEVs and PHEVs combined made up only 0.59% of the fleet.

Between 2016–20, the proportion of the fleet represented by EVs grew by 0.1% per year. If this rate holds, EVs will account for around 2.1% of the light vehicle fleet by 2035 – the point at which the Government has proposed that 30% of the light vehicle fleet should be EVs (Ministry for the Environment 2021). To meet this target, EVs will need to replace 2.1% of the light fleet every year between 2021–2035, a growth rate over 20 times that of the latter part of the 2010s, demonstrating the need for policies designed to drive faster adoption of EVs into general use.

Figure 6 Electric vehicles and petrol hybrid vehicles as a percentage of the light vehicle fleet, 2000–20

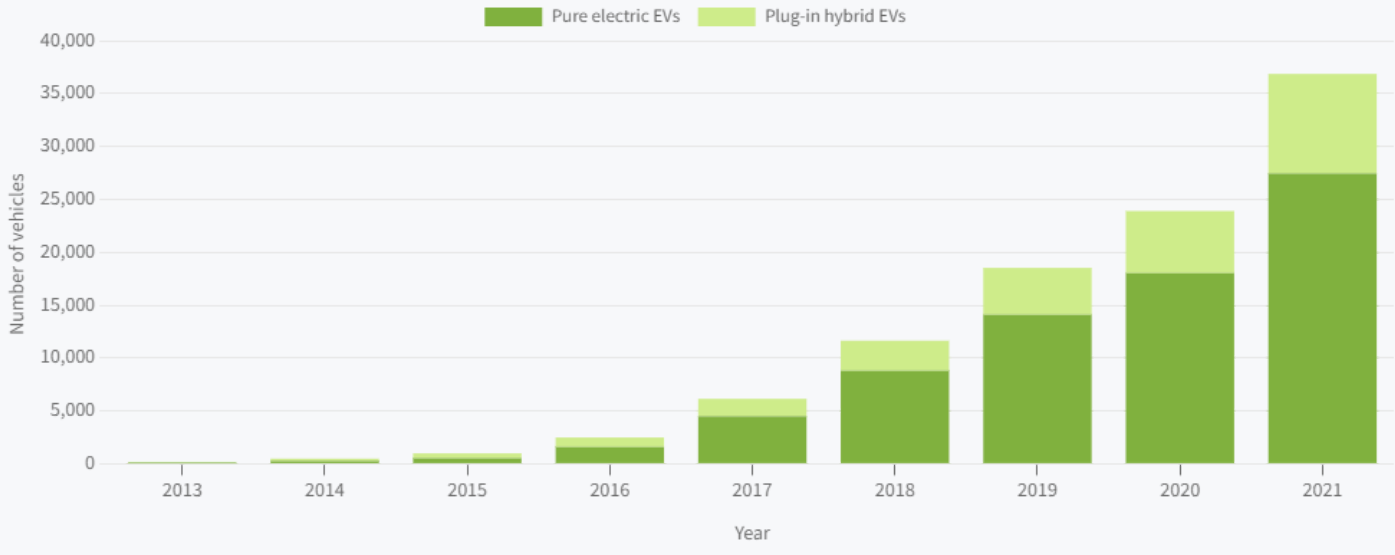


Source: Ministry of Transport 2021

The majority of EVs are pure electric vehicles

The electric vehicle fleet in New Zealand is almost exclusively composed of light passenger vehicles. In 2021, there were nearly 37,000 electric vehicles, up from only 161 in 2013 (Figure 7). Pure electric BEVs comprise around 75% of the light EV fleet; the rest of the fleet consists of plug-in hybrid vehicles.

Figure 7 Number of light electric vehicles, 2013–21



Source: Ministry of Transport 2021

Light electric vehicles are also becoming better represented among new registrations of light vehicles (Figure 8). EVs accounted for 6.9% of the light vehicle registrations in December 2022, compared to 0.1% in December 2014.

The boost in monthly registration rates from July 2021 coincides with the introduction of the Clean Car Discount. Between July and December that year, the average share of monthly registrations that were EVs (6.1%) was roughly 2.5 times that of the same period in 2020 (2.3%).

Figure 8 EVs as a percentage of monthly light vehicle registrations, December 2014–December 2021

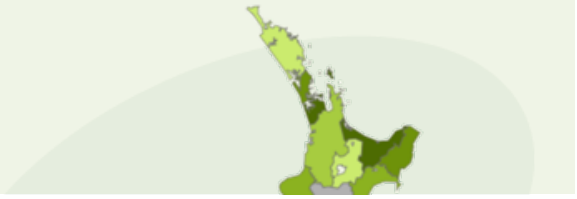
Source: Ministry of Transport 2022

Regional information

In 2021, there were 7.8 light EVs per 1,000 people in New Zealand (see the 'Regional Council' factsheet), up from 4.9 in 2020. Ownership per capita increased in all regions but was still markedly higher in major urban centres.

Continue to read this factsheet at the Regional Council (REGC) level

Interactive regional dashboard



Data for this indicator

This factsheet is an analysis of the most recent data from the Ministry of Transport's annual vehicle fleet statistics, published in December 2021.

The following categories of vehicles are used:

- Light vehicles, which includes:
  - Light passenger vehicles (passenger vehicles weighing up to 3,500 kg)
  - Light commercial vehicles (the following if under 3,500 kg: goods vans, trucks, utilities, buses, and motor caravans)
- Trucks (the following if over 3,500 kg: goods vans, trucks, utility vehicles, and motor caravans)
- Buses (those over 3,500 kg, including minibuses)
- Motorcycles (including mopeds and quadbikes/ATVs)

Data on electric vehicle numbers and registrations come from the Ministry of Transport's monthly electric vehicle registrations and cover two forms of light electric vehicles:

- Plug-in hybrid electric vehicle (PHEV), and
- Battery electric vehicles (BEV).

For additional information, see the metadata link below.

References

Ministry for the Environment. 2021. *Te hau mārohi ki anamata / Transitioning to a low-emissions and climate-resilient future: Have your say and shape the emissions reduction plan*. Wellington: Ministry for the Environment.

Ministry of Transport. 2020. *Annual vehicle fleet statistics 2019*. Wellington: Ministry of Transport.

Ministry of Transport. 2021. *Annual vehicle fleet statistics 2020*. Wellington: Ministry of Transport.

Ministry of Transport. 2022. *Monthly EV statistics*. Wellington: Ministry of Transport.

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Further information
For descriptive information about the data Metadata Sheet

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