Number of motor vehicles

This report presents an analysis of the growth of the motor vehicle fleet in Aotearoa New Zealand, particularly regarding different fossil fuel types and electric vehicles. These data are sourced from the Ministry of Transport's Annual and Quarterly Fleet Statistics.

Key facts

- In 2023, there were 4.7 million vehicles in New Zealand, up from 2.9 million in 2004.
- The number of light vehicles per capita remains high relative to other countries at 817 vehicles per 1,000 people in 2023.
- While electric vehicles represented just over 2.4% of the light fleet in 2023, the EV fleet doubled in size relative to 2021, driven by rapid growth in EV registrations linked to the now-discontinued Clean Car Discount.
- Light EV ownership per capita was highest in more urbanised regions.

Why is the number of motor vehicles important for environmental health?

The use of motor vehicles can impact human health through air pollution, crashes and accidents, noise, and by accelerating climate change. In particular, motor vehicle emissions from petrol and diesel combustion affect outdoor air quality and human health. It has been estimated that motor vehicle emissions caused 2,247 premature deaths in 2016 (Kuschel et al. 2022) – compared to 327 deaths from road traffic accidents that year (Ministry of Transport 2023).

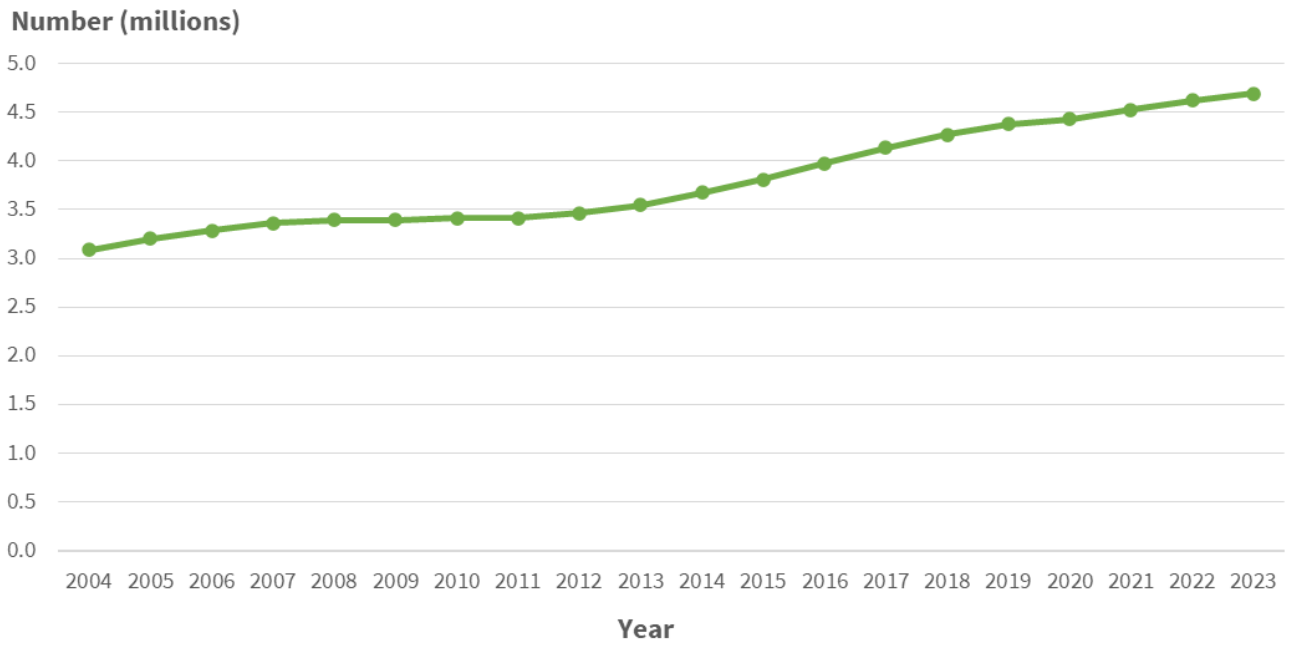
Evidence also shows that diesel engine fumes can cause lung cancer (IARC, 2023). Road traffic noise can also affect health, particularly through high blood pressure resulting from stress associated with road noise (van Kempen and Babisch 2012).

The size of the vehicle fleet continues to grow

Between 2004 and 2023, the number of motor vehicles in New Zealand increased by just over 52%, rising from 3.1 million to 4.7 million. This contrasts with a growth in population of 28% over the same 20-year period.

Annual growth in the vehicle fleet has varied over time in response to policy changes, financial conditions, and other significant events such as the COVID-19 pandemic. After slowing in the years following the 2007–2008 global financial crisis, the fleet grew strongly between 2013 and 2019. Growth then slowed during 2020 due to the COVID-19 pandemic before increasing again, with 3.6% growth in 2023 (Figure 1).

Figure 1: Number of motor vehicles (all types), 2004–2023



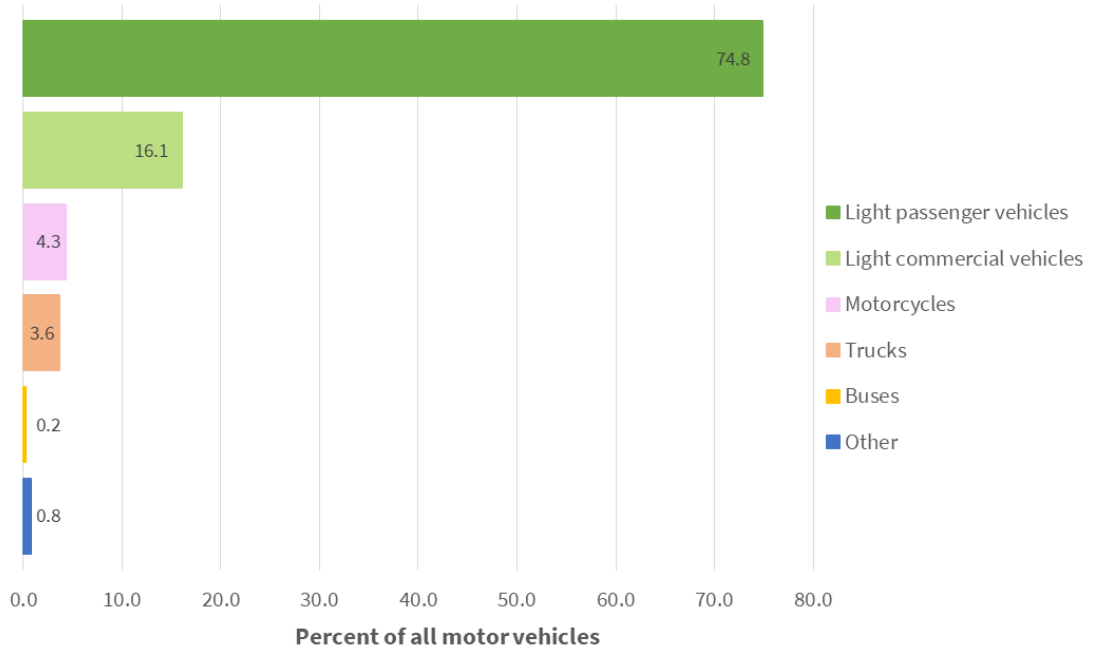
Source: Ministry of Transport 2025a

The vehicle fleet is almost exclusively composed of light vehicles

In 2023, light vehicles made up 90.9% of the total vehicle fleet. Light passenger vehicles continue to be the most common type of vehicle, at 74.8% of the total fleet (3.5 million vehicles). Light commercial vehicles accounted for a further 16% of the fleet (755,025 vehicles) (Figure 2).

The remainder consisted of 199,393 motorcycles (4.3% of the fleet), 164,958 trucks (3.6%), 11,464 buses (0.2%) and 38,182 vehicles of other types (0.8%). These proportions have remained largely unchanged over the past 20 years.

Figure 2: Vehicle types as a proportion of the combined vehicle fleet, 2023



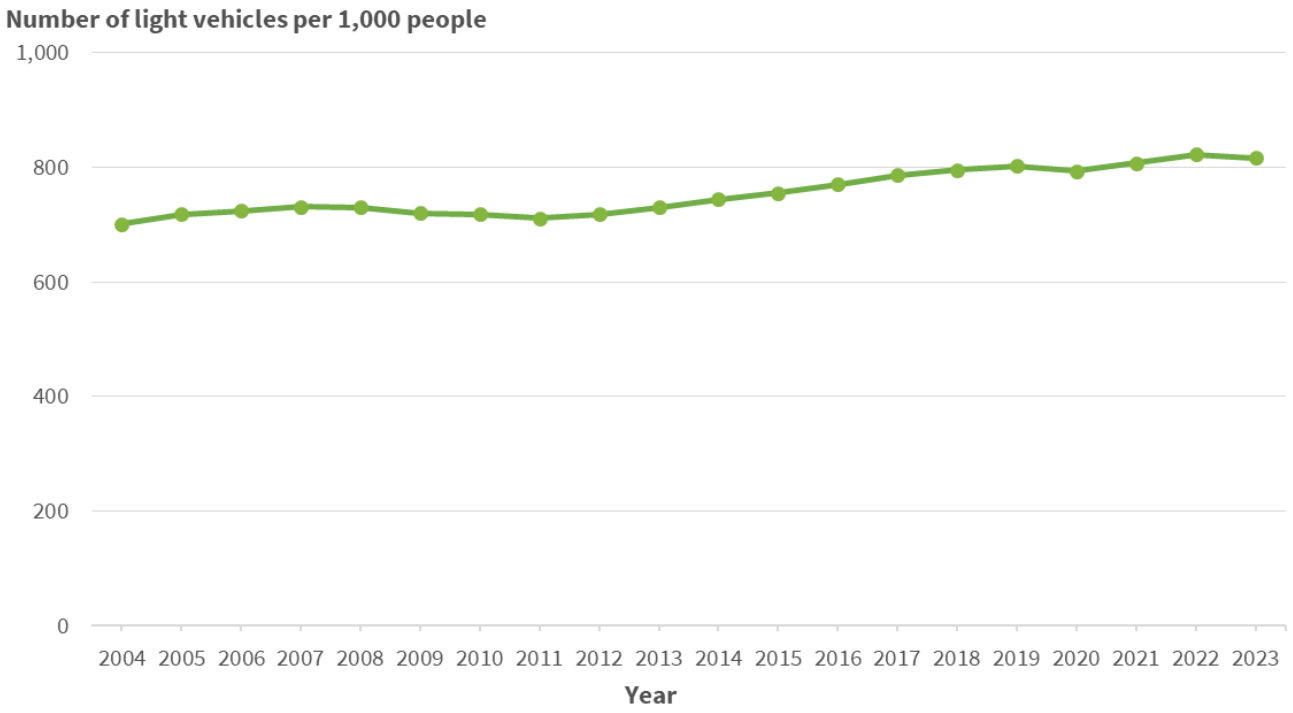
Notes: The total for all types does not add to 100% due to rounding. 'Other' vehicles include mobile machines, special-purpose vehicles, tractors and agricultural equipment.
Source: Ministry of Transport 2025a

Vehicle ownership per capita is high relative to other countries

New Zealand has one of the world's highest rates of motor vehicle ownership (Ministry of Transport 2024). The number of light vehicles per capita increased from 701 vehicles per 1,000 people in 2004 to 817 per 1,000 people in 2023 (Figure 3).

A minor decrease occurred in 2020, but this is likely a result of imports slowing during the coronavirus pandemic; the rates have increased every year since. In general, the rate of ownership levels off or drops during periods of economic uncertainty.

Figure 3: Light motor vehicle ownership per capita, 2004–2023

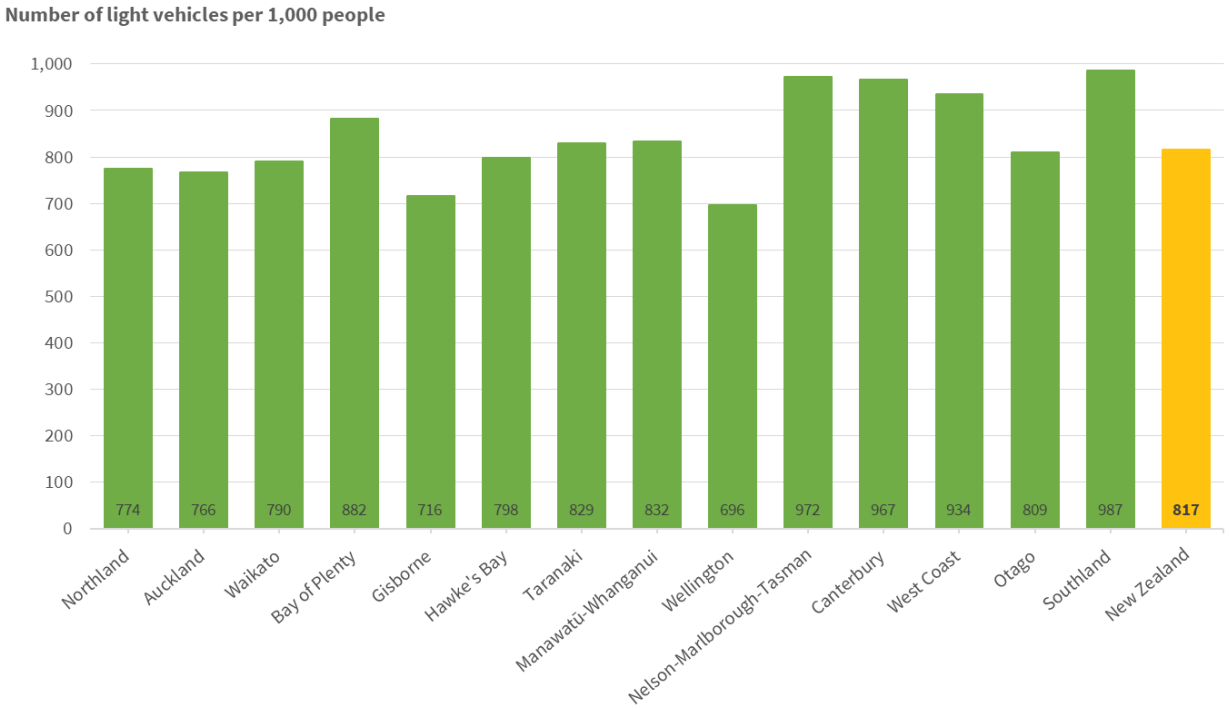


Source: Ministry of Transport 2025a

Light vehicle ownership across New Zealand

Light vehicle ownership rates varied across the country in 2023 (Figure 4). The regions with the highest rates were Southland (987 vehicles per 1,000 people), Nelson-Marlborough-Tasman (972), Canterbury (967) and West Coast (934). The Wellington region had the lowest ownership rate in 2023 (696 vehicles per 1,000 people), followed by Gisborne (716).

Figure 4: Light motor vehicles per capita, by region, 2023

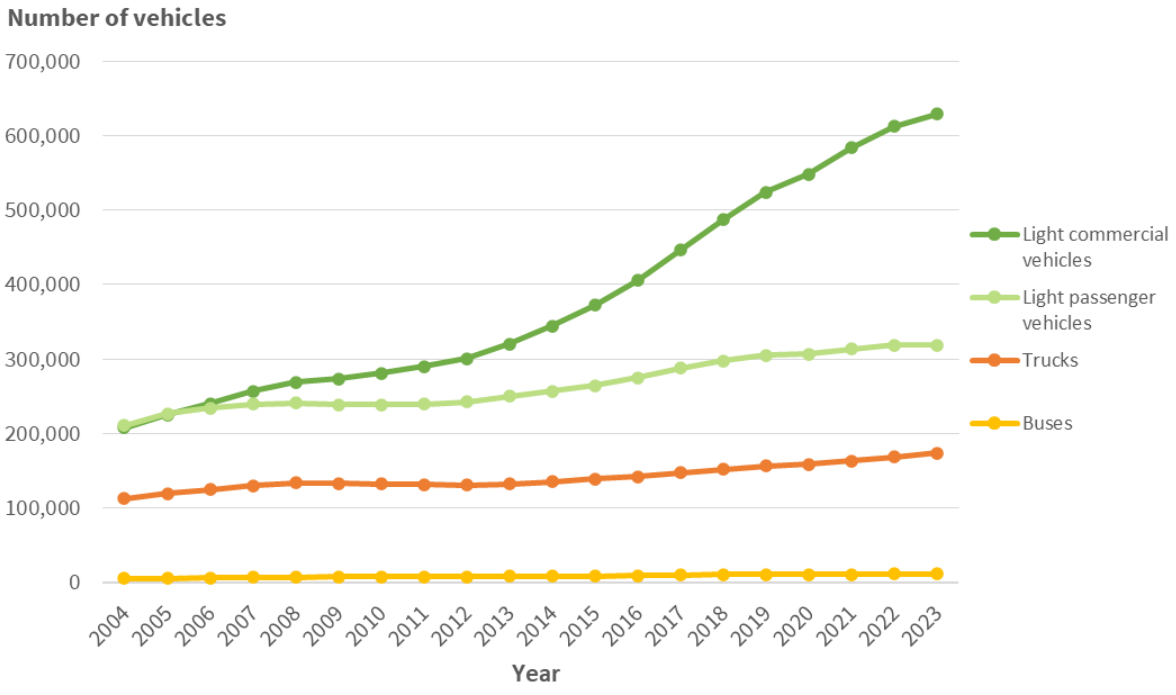


Source: Ministry of Transport 2025a

Diesel vehicle numbers are still increasing

The number of diesel-powered vehicles has increased steadily, with particularly strong growth occurring in the light commercial fleet from 2012 onwards (Figure 5).

Figure 5: Number of diesel vehicles, by vehicle type, 2004–2023



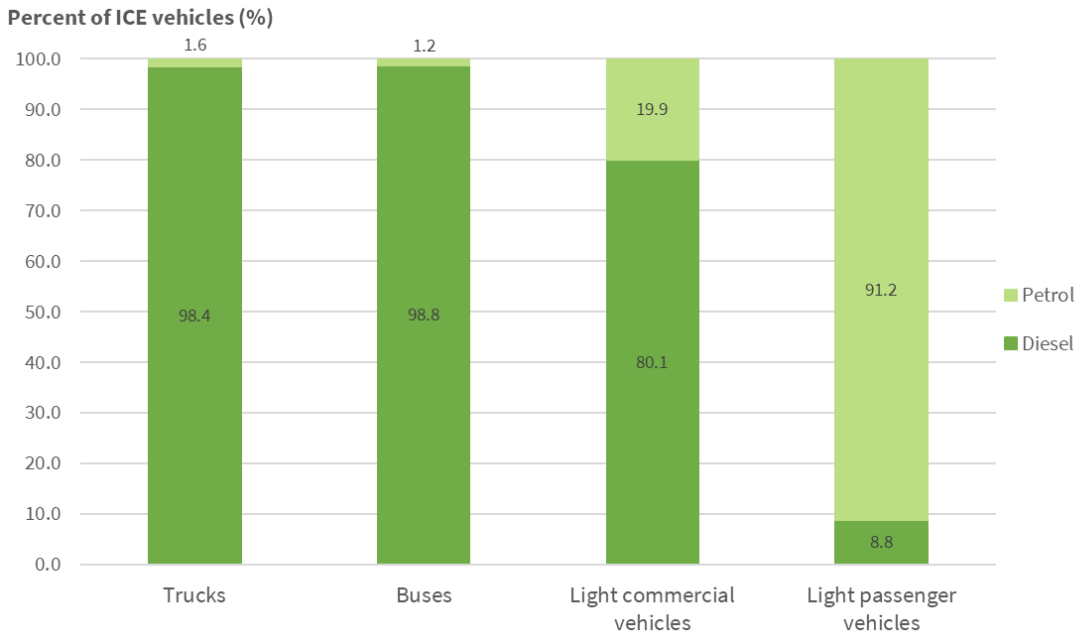
Source: Ministry of Transport 2025a

Almost all trucks and buses are diesel-powered

In 2023, 24.8% of all internal combustion engine (ICE) vehicles were diesel-powered, though diesel fuels are limited primarily to heavy and commercial vehicles (Figure 6). Nearly all trucks and non-electric buses were diesel-powered (over 98% in both cases) as were 80.1% of light commercial vehicles. There were more than twice as many electric buses as petrol-powered ones, with 350 electric (equal to 3.0% of all buses) compared to 134 petrol-fuelled ones.

The proportion of diesel vehicles within the light commercial fleet has grown over the past 20 years – in 2001, only 45.8% of these were diesel-powered.

Figure 6: Percentage of internal combustion engine vehicles, by fuel and type, 2023



Note: This graph only includes vehicles powered by internal combustion engines (ICE). This includes petrol hybrids, but not pure electric vehicles.
Source: Ministry of Transport 2025a

Electric and petrol hybrid vehicles are a growing minority

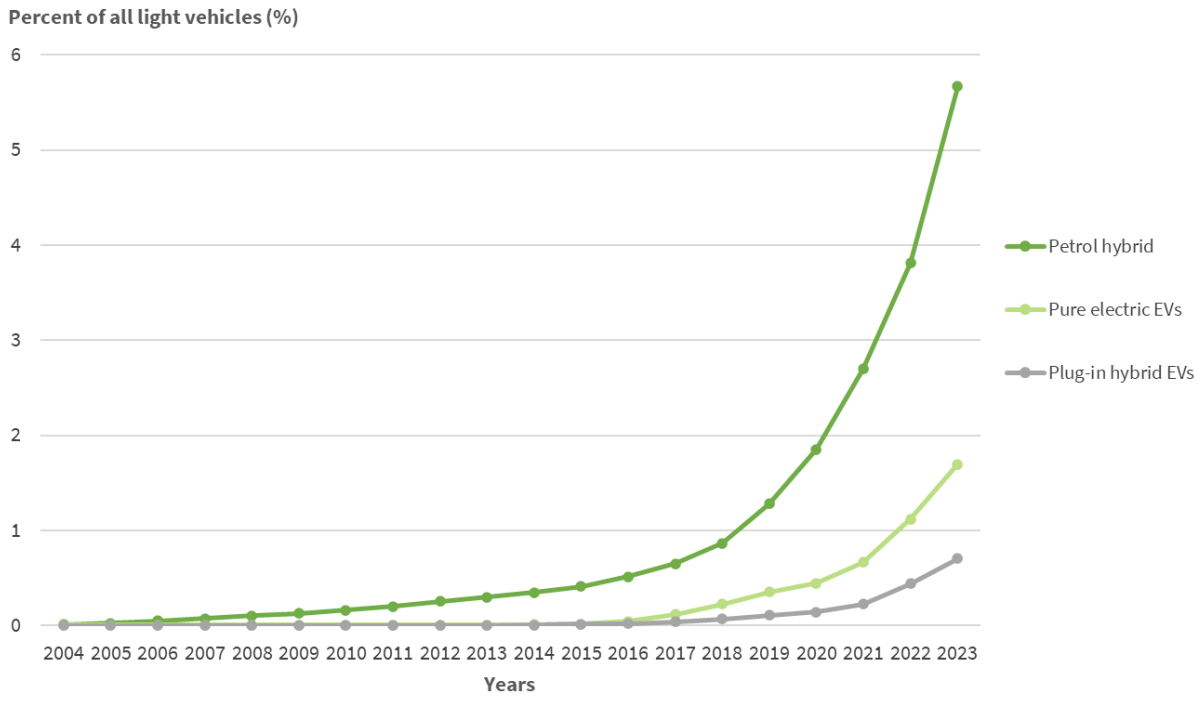
Electric vehicles (EVs) are charged externally from a power source. There are two types of electric vehicles in New Zealand:

- Pure electric vehicles are powered solely by batteries
- Plug-in hybrid electric vehicles use a combination of externally charged batteries and a conventional fuel-burning engine

Petrol hybrid vehicles are not counted as ‘electric vehicles’ in this report, as they are not rechargeable from external electrical power sources. Instead, their batteries are charged from onboard sources - using electricity generated by their ICE engine and regenerative braking.

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, with growth accelerating since 2016. However, the proportions remain very low, with petrol hybrids making up 5.7% of the light fleet in 2023, while pure EVs and plug-in hybrid EVs combined made up only 2.4% of the fleet (Figure 7).

Figure 7: Electric and petrol hybrid vehicles as a percentage of the light fleet, 2004–2023

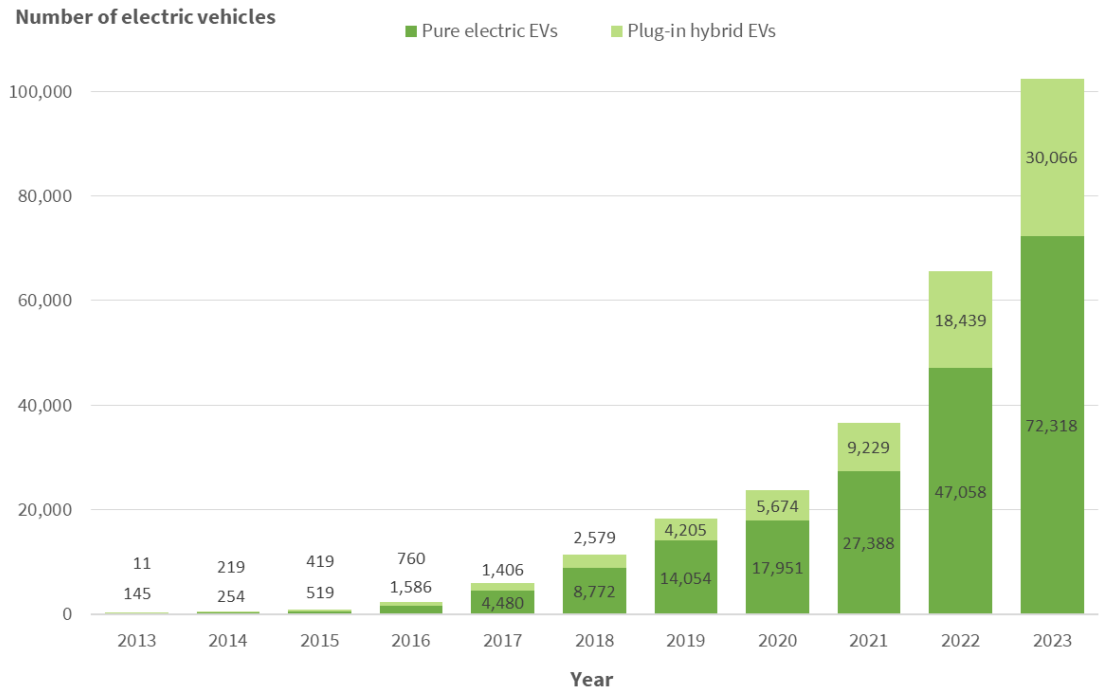


Source: Ministry of Transport 2025a

The EV fleet increased by more than 50 percent in 2023

The electric vehicle fleet in New Zealand is almost exclusively composed of light passenger vehicles. In 2023, there were 102,384 electric vehicles, up from 65,497 in 2022 (Figure 8). Pure electric EVs comprise just over 70% of the light EV fleet; the remainder are plug-in hybrid vehicles.

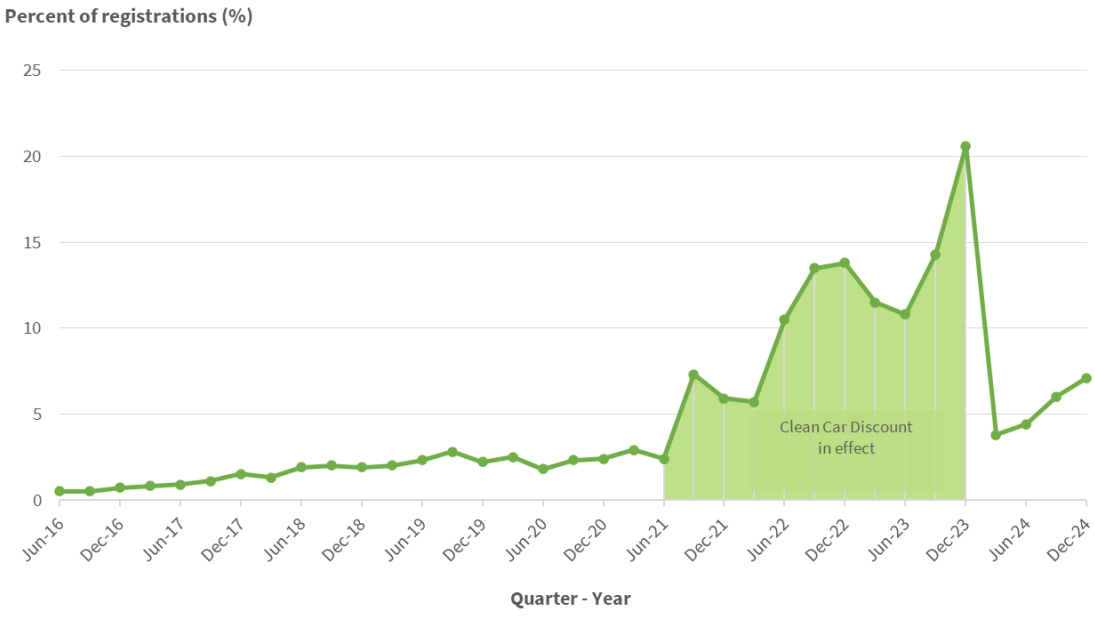
Figure 8: Number of light electric vehicles, 2013-2024



Source: Ministry of Transport 2025a

The percentage of new car registrations that were electric vehicles dropped in the quarter to March 2024, after the Clean Car Discount scheme ended. This scheme ran from July 2021 to December 2023 and was associated with rapid growth in the share of quarterly registrations that were EVs. There was a spike in registrations at the end of the scheme, at 20.6% of new registrations before a drop to 3.8% in March 2024. There has been some recovery since, with EV registrations making up 7.1% of new vehicle registrations in December 2024 (Figure 9).

Figure 9: EVs as a percentage of quarterly light vehicle registrations, 2016–2024



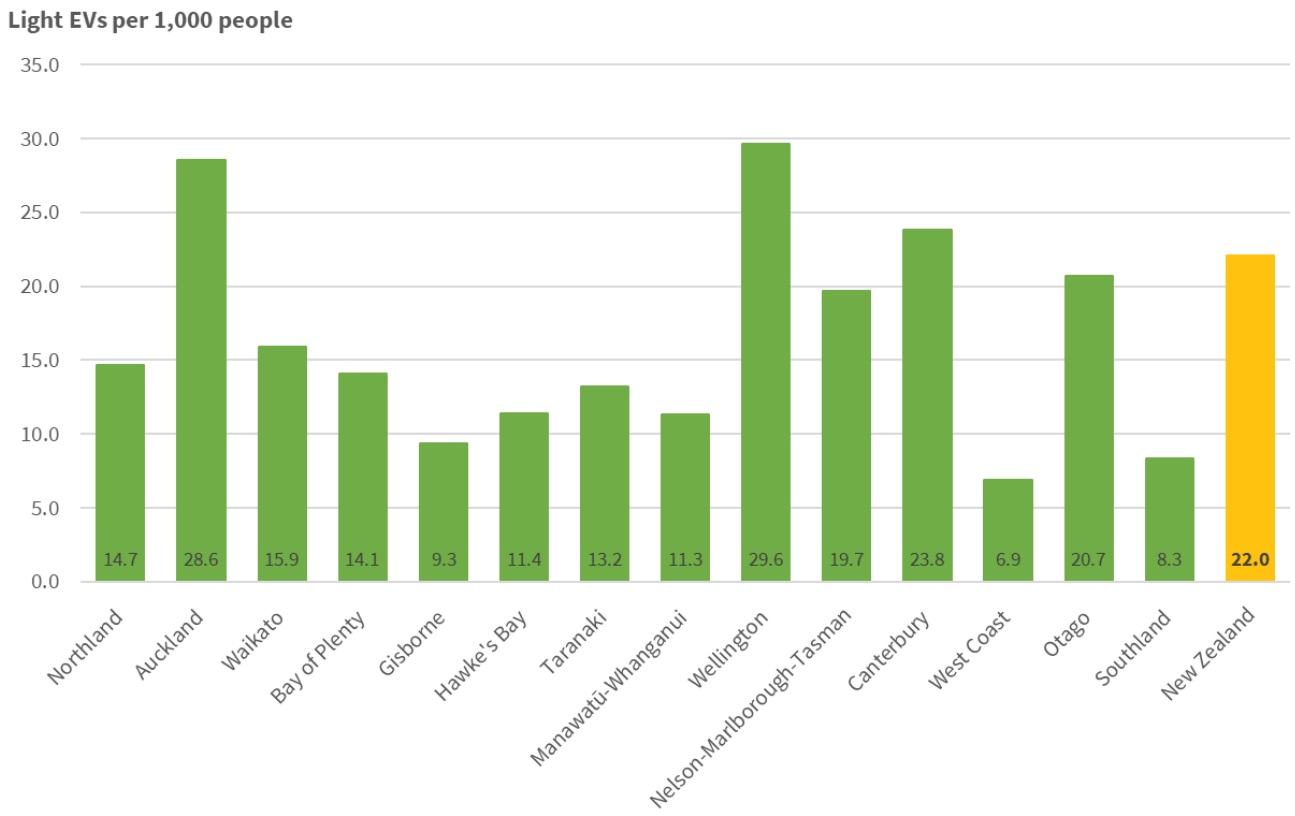
Source: Ministry of Transport 2025b

Light electric vehicles across New Zealand

In 2023, there were 22.0 light EVs per 1,000 people in New Zealand (Figure 10), up from 12.7 in 2022. Ownership per capita increased in all regions but was still markedly higher in major urban centres.

The regions with the highest rates were Wellington (29.6 EVs per 1,000 people) and Auckland (28.6 EVs per 1,000 people), followed by Canterbury (23.8). The per capita ownership rates in these areas were almost double what they were in 2021. Regions with relatively low EV ownership rates included West Coast (6.9 EVs per 1,000 people), Southland (8.3) and Gisborne (9.3).

Figure 10: Light electric vehicles per capita, by region, 2023



Source: Ministry of Transport 2025b

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 February 2025.

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 quarterly electric vehicle registrations and cover two forms of light electric vehicles:

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

The data includes all vehicles on the Motor Vehicle Register, excluding those exempt from having a license (not used on roads) and those with an expired license (if the license has not been renewed within 6 months).

For additional information, see the Metadata sheet.

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