

Number of motor vehicles in New Zealand

HIGHLIGHTS:

- In 2017, there were about 4.2 million vehicles in New Zealand—the highest number ever.
- Diesel vehicle numbers continue to increase, and now make up 18.5% of all light vehicles.
- In 2017, there were 792 light vehicles per 1,000 people.
- The size of the electric vehicle fleet is steadily increasing.



Relevance of motor vehicles to environmental health

Vehicle use can impact human health through air pollution, motor vehicle crashes, road traffic noise and greenhouse gas emissions. In particular, vehicle emissions from burning petrol and diesel affect outdoor air quality. Vehicles release carbon monoxide, particulate matter, nitrogen dioxide and other gases, which can lead to health problems (Kjellström 2004). Diesel vehicles are disproportionately more polluting than petrol vehicles in terms of particulate matter and total nitrogen oxides (Sridhar et al. 2014). Recent evidence also shows that diesel engine fumes can cause lung cancer (Benbrahim-Tallaa et al. 2012). Additionally, motor vehicles emit carbon dioxide, contributing to climate change. Road traffic noise can also affect health, particularly through high blood pressure (van Kampen and Babisch 2012).

Electric vehicles in New Zealand

Electric vehicles (EV) are charged externally from an electricity source. Pure electric vehicles are powered solely by electric batteries, while plug-in hybrid vehicles use a combination of both batteries and a conventional engine.

More than 80% of electricity in New Zealand is generated from renewable sources, meaning greenhouse gas emission reduction benefits of electric vehicles in New Zealand are greater than in most other countries. For more information, please visit www.electricvehicles.govt.nz



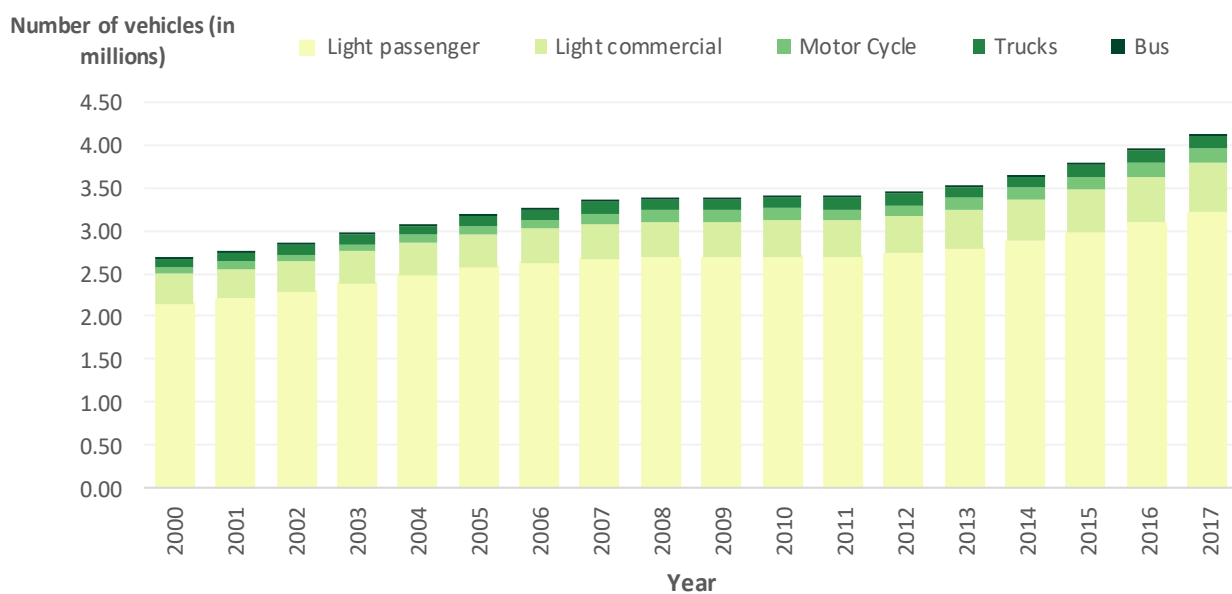
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More vehicles on our roads

There were about 4.2 million motor vehicles in New Zealand in 2017—the highest ever number (Figure 1). Between 2000 and 2017, the number of motor vehicles in New Zealand increased by almost 55%, from 2.7 million in 2000 to about 4.2 million motor vehicles in 2017.

In 2017, light passenger vehicles were the most common type of vehicle (3.2 million vehicles, 77% of the fleet), followed by light commercial vehicles (581,000 vehicles, 14% of the fleet). Together, light vehicles made up over 91% of the total vehicle fleet. Increases in numbers were seen for all vehicle types since 2000. Between 2000 and 2017, the number of light vehicles and trucks both increased by about 50%. Motorcycles and buses had the largest growth, both increasing more than 100% between 2000 and 2017.

Figure 1: Number of motor vehicles in New Zealand, by vehicle type, 2000–2017

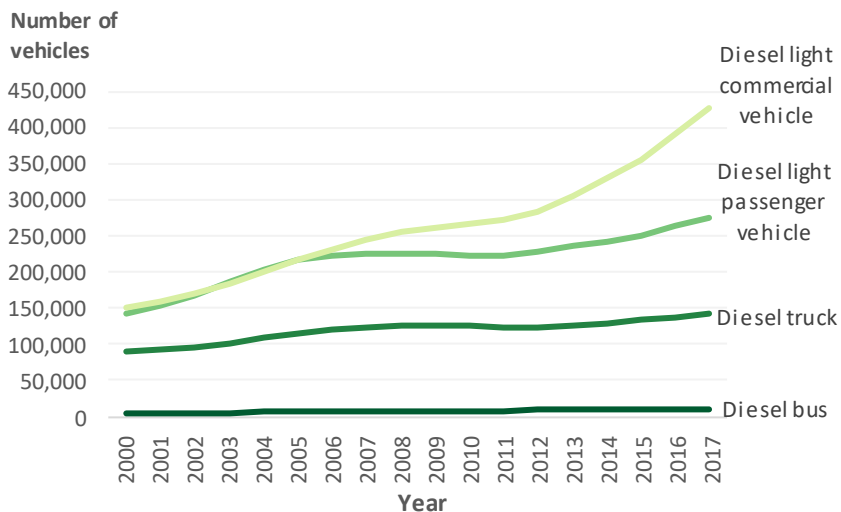


Source: Ministry of Transport 2019

Diesel vehicle numbers continue to increase

The number of diesel vehicles has increased steadily since 2000, particularly light diesel vehicles (Figure 2).

Figure 2: Number of diesel vehicles in New Zealand, by vehicle type, 2000–2017



Source: Ministry of Transport 2019

In 2017, light diesel vehicles made up 18.5% (over 700,000 vehicles) of the light vehicle fleet (passenger and commercial), up from 11.8% in 2000. Diesel light commercial vehicles made up 74% of the light commercial fleet in 2017, while only 8.6% of the light passenger fleet was diesel.

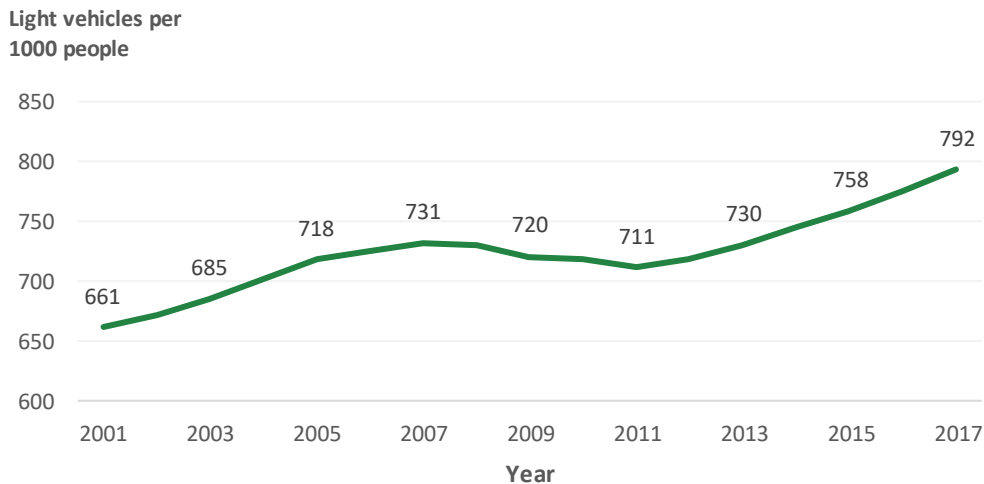
The truck and bus fleet almost entirely consist of diesel vehicles.

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Car ownership per capita continues to increase in New Zealand

Between 2001 and 2017, the number of light vehicles per 1,000 people increased by over 16%. In 2017, New Zealand's car ownership rate was 792 light vehicles per 1,000 people, the highest rate over the 17-year period (Figure 3). This rate represents one of the highest levels of car ownership in the world (Ministry of Transport 2019).

Figure 3: Light motor vehicle ownership 2001-2017 (rate per 1,000 people)



Source: Ministry of Transport 2019

Light vehicle ownership rates varied across the country. The three regions with the highest ownership rates were all in the South Island: Nelson-Marlborough (1,007 light vehicles per 1,000 people), Southland (914 light vehicles per 1,000 people) and Canterbury (912 light vehicles per 1,000 people) (Figure 4). The regions with the lowest light vehicle ownership rates were Wellington, with 661 light vehicles per 1,000 people, closely followed by Gisborne with 658 light vehicles per 1,000 people.

Figure 4: Light vehicle ownership, by region, in 2017 (rate per 1,000 people)



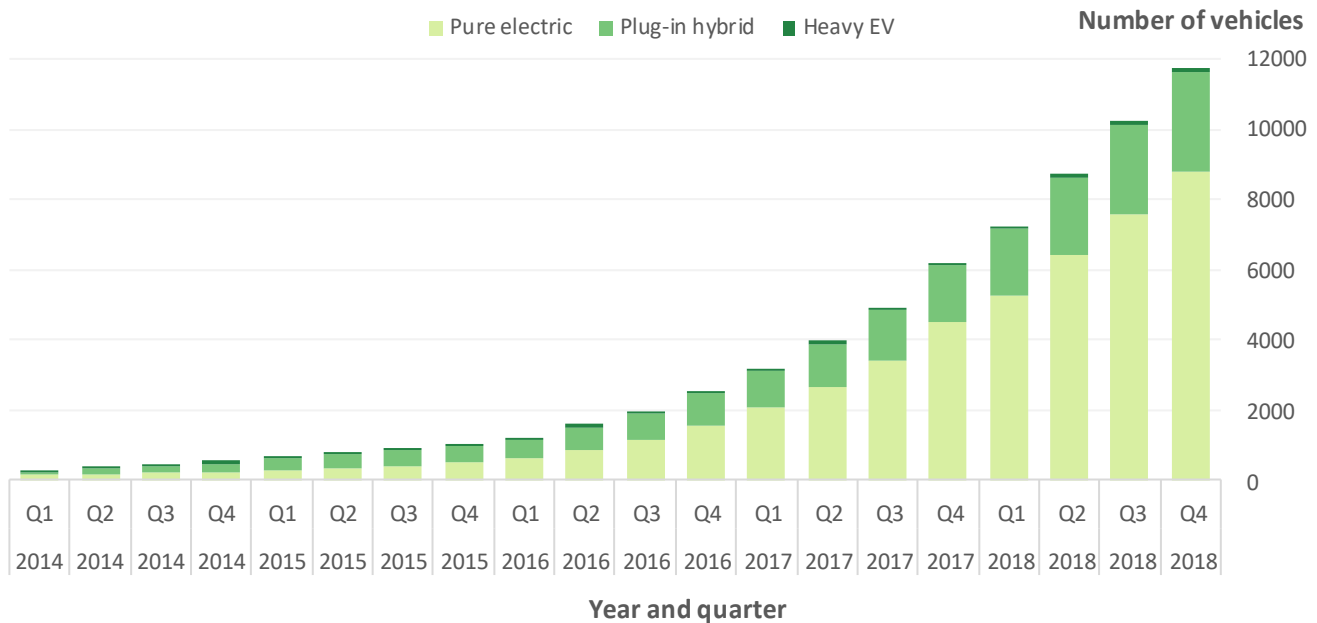
Source: Ministry of Transport 2019

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Number of electric vehicles in New Zealand motor vehicle fleet is increasing rapidly

The electric vehicle fleet in New Zealand mainly comprises light vehicles. In the fourth quarter of 2018 (October to December), there were 8,462 pure electric and 2,759 plug-in hybrid vehicles in the New Zealand motor vehicle fleet (Figure 5). These numbers have been rapidly increasing since March of 2014 (149 pure electric and 31 plug-in hybrid vehicles).

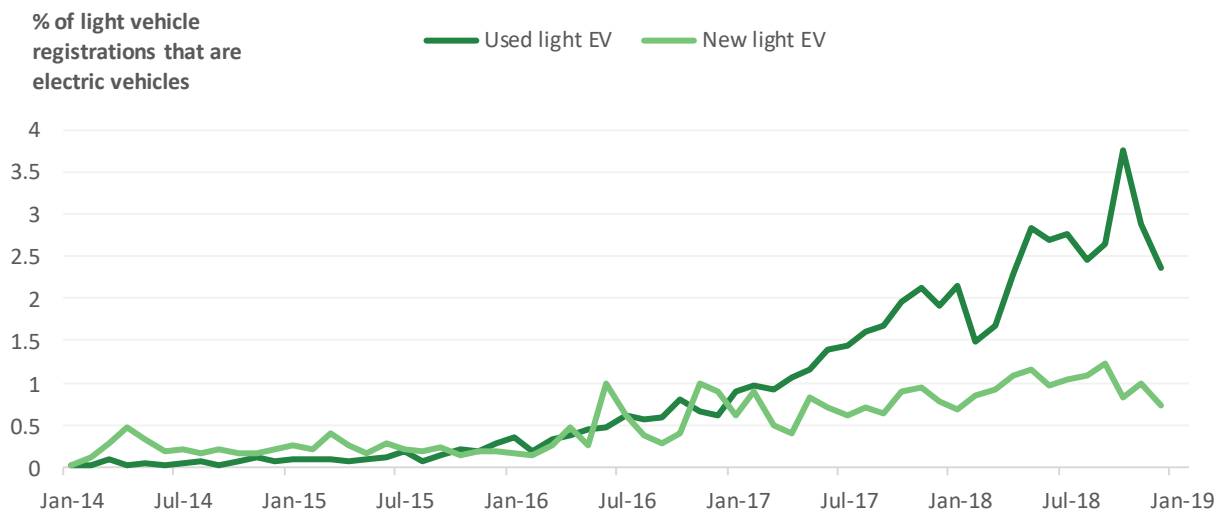
Figure 5: Number of electric vehicles in New Zealand, by vehicle type, 2014 (quarter one)–2018 (quarter four)



Note: Quarter refers to the count as at the last month of the quarter
 Q1: Jan to Mar, Q2: Apr to Jun, Q3: Jul to Sept, Q4: Oct to Dec

Light electric vehicles are increasingly becoming a larger percentage of light vehicle registrations (Figure 6). In December 2018, used light electric vehicles accounted for 2.4% of all used light vehicle registrations, compared to 0.03% in January 2014. 0.73% of new light vehicle registrations were electric vehicles in December 2018. The majority of electric vehicle registrations were used imports.

Figure 6: Percentage of light vehicles that are electric vehicles, by vehicle type, January 2014–December 2018



Source: Ministry of Transport 2019

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Vehicle types

- Light vehicles include light passenger vehicles and light commercial vehicles:
 - ‘Light passenger vehicles’ include passenger cars and vans.
 - ‘Light commercial vehicles’ include the following, if under 3500kg: goods vans, trucks, utilities, buses, motor caravans.
- ‘Trucks’ include the following, if over 3500kg: goods vans, trucks, utilities, motor caravans.
- ‘Motorcycles’ include motorcycles and mopeds.
- ‘Buses’ include buses over 3500kg.

FURTHER INFORMATION

Related environmental health indicators for Transport and Air Quality are available on the [EHINZ website](#).

DATA FOR THIS INDICATOR

Data comes from Ministry of Transport Vehicle Fleet Statistics (2019). For more information about this indicator data, please see the [Metadata sheet](#).

REFERENCES

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More information on Electric Vehicles is available at this URL: <https://www.electricvehicles.govt.nz/>

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CITATION

Environmental Health Indicators. 2019. Number of Motor Vehicles in New Zealand. [Factsheet]. Wellington: Environmental Health Indicators Programme, Massey University.