# **Electric vehicles**

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# What are electric vehicles?

Electric vehicles are vehicles charged from an external electricity source.

They can be powered in two ways:

- 1. Solely by electric batteries known as pure electric vehicles or,
- 2. A combination of batteries and a conventional engine called plug-in hybrid electric vehicles.

# New Zealand is well suited to electric vehicles

New Zealand is well placed to benefit from electric vehicles. More than 80 percent of electricity is generated from renewable sources and there is enough supply for widespread adoption of EVs. Even if every light vehicle was electric, there is sufficient generation capacity to charge these provided the majority are charged at off-peak times.

• High renewable energy levels mean that the emission reduction benefits of electric vehicles in New Zealand are greater than in most other countries, producing 80 percent fewer greenhouse gas emissions.

- New Zealand's electricity system makes for easy charging from existing outlets.
- More than 85 percent of New Zealand homes have off-street parking. This makes overnight home charging easy and convenient.

• New Zealanders have a low average commute. Urban drivers only travel 22 kilometres a day — a distance the batteries in current electric vehicles can easily handle.

• Read the fact sheet on why electric are particularly well suited to New Zealand [PDF, 624 KB]

For further information, read the questions and answers about electric vehicles on the Energy Efficiency and Conservation Authority website(external link).

Read about reducing transport emissions with electric vehicles

Reducing transport emissions requires a range of measures, of which increasing the use of low emissions vehicles is just one.

• Read about other government measures to reduce greenhouse gas emissions in the transport sector

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#### **Electric Vehicles Programme**

On 5 May 2016, the Government announced its Electric Vehicles Programme. This includes measures to increase the number of electric vehicles in New Zealand and has a goal of reaching approximately 64,000 electric vehicles on our roads by the end of 2021.

The Government's aim is to help develop the electric vehicle market in New Zealand by reducing some of the barriers and investigating ways to further support the uptake of electric vehicles.

Barriers include misconceptions about electric vehicles, and limited public charging infrastructure.

- Read the Minister of Transport's media release about the launch of the Electric Vehicles Programme in May 2016(external link)
- Read about the development of the Electric Vehicles Programme

The Electric Vehicles Programme includes a number of initiatives:

Extending the Road User Charges (RUC) exemption on light vehicles until they make up two percent of the light vehicles fleet

On 22 September 2016, the RUC exemption for light electric vehicles was extended until 31 December 2021.

This will save the average electric vehicle driver approximately \$600 per vehicle each year.

RUC exemption for heavy electric vehicles until they make up 2 per cent of the heavy vehicle fleet

The Energy Innovation (Electric Vehicles and Other Matters) Amendment Act includes legislation to introduce a RUC exemption for heavy electric vehicles.

This will result in significant savings for heavy electric vehicle drivers. This will be dependent on the type of vehicle and the distance it travels in a year.

This exemption took effect from 1 September 2017.

Work across government and the private sector to investigate the bulk purchase of electric vehicles In December 2016, New Zealand Government Procurement (NZGP) added 15 new electric vehicle models to the all of government vehicles contract to support the uptake of electric vehicles.

NZGP is continuing to work to increase EV fleet purchases and is undertaking a pilot programme to assess EV demand across public and private sector organisations.

# • Read the NZGP media release about the addition of electric vehicles to the all of government vehicles contract and the panel of electric vehicle suppliers(external link)

Government agencies coordinating activities to support the development and roll-out of public charging infrastructure including providing information and guidance

The New Zealand Transport Agency (NZTA) has worked closely with local and central government agencies, power companies, technology providers and the motor industry to produce guidance on public charging infrastructure for electric vehicles.

This guidance(external link), released earlier this year, clarifies standards and provides recommendations to help electric vehicle infrastructure investors set up a network of charging facilities that can be used by as many drivers as possible.

- Read about the nationwide charging infrastructure plans(external link)
- Read the Minister of Transport's media release on the public charging infrastructure guidance(external link)

\$1 million annually for a nationwide electric vehicle information and promotion campaign over five years

The Minister of Transport launched the electric vehicles information campaign(external link) in September 2016, which includes a useful and insightful electric vehicle web portal (external link) and television and internet advertisements(external link).

A contestable fund of up to \$6 million per year to encourage and support innovative low emission vehicle projects

The Government established a contestable fund to encourage innovation, investment and help accelerate uptake of electric and other low emission vehicles in New Zealand. The 15 projects approved for funding from the first round of the Low Emission Vehicles Contestable Fund were announced in early 2017.

The successful projects for funding from the second round of the low Emission Vehicles Contestable Fund were announced in August 2017.

More details about approved projects can be found here:

https://www.eeca.govt.nz/funding-and-support/low-emission-vehicles-contestable-fund/low-emission-vehicles-contestable-fund-successful-projects/previously-approved-projects/

The third round of funding opened on 14 August 2017 and will close on 27 September 2017.

• Read more about the Low Emission Vehicles Contestable Fund(external link)

Enabling road controlling authorities to allow electric vehicles into special vehicle lanes on the State Highway network and local roads

The Government agreed to an initiative to enable road controlling authorities to make bylaws to allow electric vehicles access to special vehicle lanes (including transit, high occupancy vehicle, priority bypass, and bus lanes).

Changes to the Land Transport Act 1998 which were led by the Ministry of Transport and the New Zealand Transport Agency were made through the Energy Innovation (Electric Vehicles and Other Matters) Amendment Act.

#### Read more about the required legislative change

Review of tax depreciation rates and the method for calculating fringe benefit tax, for electric vehicles to ensure electric vehicles are not being unfairly disadvantaged

Inland Revenue has been asked to review the tax depreciation rate, and the method used to calculate fringe benefit tax, for electric vehicles to ensure it is fair. Inland Revenue has received information from a number of stakeholders that have made their own analysis or assessment of electric vehicles, to aid in its review.

### Review ACC levies for plug-in hybrid electric vehicles

ACC levy rates for 2017/18 and 2018/19 will see owners of all electric vehicles (including owners of plugin hybrid electric vehicles) pay reduced ACC levies as part of their annual vehicle licensing. This reflects a saving of around \$68 per annum for electric vehicle owners. The changes took effect on 1 July 2017.

The change is a temporary measure that supports the Electric Vehicles Programme, and allows further work to be done on how the ACC levy system accommodates new vehicle technologies.

# • Read the Minister for ACC's media release about the 2017/18 and 2018/19 ACC levies (external link)

Establishing an electric vehicles leadership group across business, local and central government In August 2016, the Transport Minister, Simon Bridges, announced the members of the Electric Vehicles Programme Leadership Group.

The Leadership Group will champion the Programme and proactively promote the initiatives within it. It will share information between central and local government and industry, and provide feedback to test ideas and decisions before they are put into practice.

Members of the group are:

- Peter Mersi, Secretary for Transport, Chair
- Andrew Caseley, Chief Executive, EECA
- Abbie Reynolds, Executive Director, Sustainable Business Council

- Mark Gilbert, Chair, Drive Electric
- Julia Jack, Chief Marketing Officer, Mercury
- David Crawford, Chief Executive, Motor Industry Association
- Simon Mackenzie, Chief Executive, Vector Limited
- Mike Noon, General Manager Motoring Affairs, AA
- David Vinsen, Chief Executive, Imported Motor Vehicle Industry Association
- Steve West, Chief Executive, ChargeNet
- Catarina Gutierrez, ebike representative.