

# Fact sheet – Electric vehicles

Number 18, 2016

Part of the <u>Tranzinfo Hot Topics</u> series, this fact sheet offers a selection of recent (2015-2016) material on electric vehicles. Although autonomous vehicles have dominated news headlines in recent times, there is also strong interest in the benefits of electric vehicles, with governments both in Australia and abroad working towards increasing their uptake.

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# Glossary

A list of terms and acronyms used to describe different types of electric vehicles and associated technology can be found <u>here</u>.

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# Latest reports & research

Can today's EVs make a dent in climate change? MIT News, United States, 15 August 2016 Around 90 per cent of personal vehicles on the road today could be replaced by low-cost electric vehicles that meet owners' travel needs, according to a study by researchers at MIT. Click here for article abstract

#### Zero Carbon Australia Electric Vehicles report

Beyond Zero Emissions, Australia, 12 August 2016

Australia could shift to 100 per cent electric vehicles in 10 years at little or no extra cost, according to a new report by research organisation Beyond Zero Emissions.

#### Green still a dream, petrol tipped to drive Australian car market in 2030

Queensland University of Technology, 21 June 2016 Petrol-powered vehicles will still dominate the Australian car market in 2030, with hybrid vehicles second and battery powered vehicles third, according to a study by Queensland University of Technology researchers.

#### £51bn a year boost to economy if Government acts now on electric cars

Institute of the Motor Industry, United Kingdom, 8 April 2016 Major benefits could flow to the UK economy if the Government invests significantly in electric vehicle charging infrastructure and associated technical services, according to an academic report commissioned by the UK's Institute of the Motor Industry.

# New research shows electric cars 50 percent cleaner compared to gasoline over their lifetime

Union of Concerned Scientists press release, United States, 11 November 2015 U.S. science advocacy group Union of Concerned Scientists has released a study that compares the emissions from building, driving, and disposing of two popular battery electric vehicle models with petrol-powered vehicles of a similar size.

#### Dynamic ridesharing services can make a big environmental impact

Mineta Transportation Institute, United States, 20 October 2015 A new report from the Mineta Transportation Institute examines the environmental impacts that could result from the increased use of ridesharing services and electric vehicles.

#### Electric vehicle charging habits revealed

Idaho National Laboratory news release, United States, 30 September 2015 The best locations for electric vehicle charging stations are homes, workplaces and public 'hot spots', according to a study from the Idaho National Laboratory which analysed how drivers use public and private charging stations.

#### New EPRI-NRDC report finds widespread adoption of electric transportation could curb greenhouse gas emissions and improve air quality

Natural Resources Defense Council (NRDC), United States, 17 September 2015 Widespread use of electric vehicles - including lawn and garden equipment and heavy industrial equipment such as forklifts - could result in improvements in air quality, according to a study released by the Electric Power Research Institute (EPRI) and the Natural Resources Defense Council (NRDC).



#### Where electric vehicles actually cause more pollution than gas cars

Atlantic CityLab, United States, 29 June 2015

A new study from a US nonprofit research organisation compares electric with conventional vehicles in terms of the pollution they cause.

Electric cars could cut oil imports 40% by 2030, says study

The Guardian, United Kingdom, 10 March 2015

A report commissioned by the European Climate Foundation argues that widespread use of electric vehicles and low carbon vehicle technologies could have a positive impact on the economy and the environment.

Electric-car driving range and emissions depend on where you live

American Chemical Society, United States, 25 February 2015 A recently published US study has highlighted the impact that temperature conditions, including hot weather, can have on electric vehicle energy efficiencies.

#### Report: utilities must plan electric car future

National Rural Electric Cooperative Association, United States, 12 January 2015

A review of consumer behaviour at electric vehicle charging stations offers utility companies an insight into demand growth and peak-period activity if electric vehicle adoption increases as predicted, according to a US Department of Energy-funded report released late last year.

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# Government initiatives to increase uptake (Australia & international)

Electric car sales in Denmark plummet after change in tax policy

Gas2, 12 September 2016

Sales of electric vehicles in Denmark have dropped significantly after the government decided to reduce its generous incentives.

Mayor unveils first fully electric bus routes for central London Mayor of London press release, 9 September 2016 London will soon own Europe's largest fleet of electric buses.

Electric vehicle information campaign launched

New Zealand Government media release, Monday 12 September 2016 The New Zealand Government has launched an electric vehicles website as part of an information campaign to mark International Drive Electric Week. <u>View website</u>



#### Road user charges exemption for electric vehicles extended

New Zealand Government media release, Friday 9 September 2016 The NZ Government has announced an extension to the road user charges (RUC) exemption for light electric vehicles (EVs) which could save drivers up to \$600 a year.

Leading edge of electric vehicle market development in the United States: an analysis of California cities

International Council on Clean Transportation, white paper, September 2016 Study analyses electric vehicle markets at the city level in California in 2015. Includes a detailed analysis of the 30 California cities with the highest rates of electric vehicle penetration, examining how local organizations like regional and city governments, utilities, businesses, and nonprofits are promoting electric vehicles through a wide array of activities.

# OLEV and Innovate UK announce £24m low emission freight and logistics trial competition

Low Carbon Vehicle Partnership (UK), 19 August 2016 The competition's aim is to trial or develop low emission vehicles in the freight, logistics, utilities and emergency industries.

#### Queensland to speed ahead with electric vehicles

GovNews, Australia, August 2016

The Queensland Government is planning a strategy to facilitate the uptake of electric vehicles (EVs) and the installation of fast chargers on an EV superhighway from the Gold Coast to Cairns.

Obama administration announces federal and private sector actions to accelerate electric vehicle adoption in the United States

White House press release, United States, 21 July 2016 The US Government has announced a series of actions designed to accelerate the uptake of electric vehicles and the deployment of charging infrastructure.

#### National electric vehicle charging signage launched

New Zealand Government media release, 10 June 2016 The New Zealand Government has unveiled an easily-recognisable symbol to identify where electric vehicles can be recharged across the country.

#### Govt driving the switch to electric vehicles

New Zealand Government media release, 5 May 2016 The New Zealand Government has announced a package of measures to increase the uptake of electric vehicles. <u>Click here for more information on the Electric Vehicles Programme</u>

#### AGL Energy, Tesla in alliance to drive uptake of electric vehicles

Sydney Morning Herald, Australia, 7 April 2016

A broad coalition of electric-vehicle industry representatives, businesses, local governments and not-for-profit groups has released a report with policy recommendations to encourage the uptake of electric vehicles in Australia. <u>Click here for full report</u>

#### Vehicle Emissions Discussion Paper

Department of Infrastructure and Regional Development, Australia, 11 February 2016

The Federal Government's Vehicle Emissions Ministerial Forum has released a discussion paper canvassing ways to reduce the impact of vehicle emissions, including alternative fuels, electric vehicles, and fleet purchasing policies.

#### New plug-in grant will treble number of greener cars on Britain's roads

Department for Transport, United Kingdom, 17 December 2015 The UK Government has announced a £400 million package to increase the uptake of ultra low emission vehicles.

#### New website will raise awareness of electric vehicles

ACT Government Ministerial Media Statement, 26 November 2015 The ACT Government has launched a new website to help motorists compare the running costs of electric vehicles (EVs) with conventional vehicles, and search for the location of charging points across Canberra. <u>Click here for website</u>

And here for media article on ACT Government's electric vehicles push

#### Canberra launches ambitious bid to host US giant Tesla Motors

The Age, Australia, 9 October 2015

The ACT Government has asked electric vehicle and energy innovation company Tesla Motors to consider establishing a research and development hub in Canberra.

#### New online tool demystifies cost of EVs

New Zealand Government media release, 21 October 2015 The New Zealand Government has launched an online tool to help fleet managers to compare the total cost of running electric, hybrid, petrol or diesel cars.

Click here for online tool website

# Transition to a global zero-emission vehicle fleet: a collaborative agenda for governments

International Council on Clean Transportation, United States, 29 September 2015

The International Council on Clean Transportation has released a white paper that summarises electric vehicle policies adopted by governments,

automakers, and advocates around the world and identifies best practices.



#### New investment in electric vehicles

Queensland Government Ministerial Media Statement, 7 September 2015 The Queensland Government has entered into a partnership with Mitsubishi Motors and Ergon Energy to add electric vehicles to the electricity distributor's passenger fleet.

Assessment of leading electric vehicle promotion activities in United States cities

International Council on Clean Transportation, United States, 29 July 2015 The International Council on Clean Transportation has released an analysis of state and local government policies aimed at promoting electric vehicles in a selection of US cities.

#### Australia's first electric highway links Perth to South-West

ABC News, Australia, 23 June 2015 Twelve publicly accessible electric vehicle charging stations are now operating from Perth to Augusta.

#### Why Aussies aren't buying plug-in cars: QUT study

Queensland University of Technology, Australia, 26 May 2015 A Queensland University of Technology researcher is undertaking a study into the slow uptake of electric vehicle use in Australia with an online survey as part of the research.

#### Obama: half of federal fleets must be PHEV or ZEV by 2025

Hybrid Cars, Canada, 25 March 2015

US President Obama has signed an Executive Order requiring half of federal government fleet vehicles to be zero emission vehicles (ZEVs) or plug-in hybrid vehicles (PHEVs) by 2025.

Click here for Executive Order

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### Latest trials & innovations

<u>World-first solar electric cars to be manufactured in Brisbane</u> Queensland Government Ministerial Media Statement, 19 September 2016 Solar car racing team Clenergy TeamArrow has opened a new manufacturing hub in Brisbane, where it aims to produce commercial, roadregistered solar electric vehicles.

New Electric Vehicle owners are invited to join the Electric Nation Community TRL press release, United Kingdom, 14 September 2016

A trial of an electric vehicle smart charging solution between domestic charge points and local electricity networks was launched in the UK this week, with the aim of facilitating an increase in electric vehicle ownership without costly and disruptive upgrades to local electricity infrastructure.



#### Palaszczuk Government investment drives electrical vehicle innovation

Queensland Government Ministerial Media Statement, 9 June 2016 A Brisbane innovation firm funded in part by the Queensland Government has developed new fast charging stations for electric vehicles.

#### Caltrans looking to the sun for transportation

Caltrans press release, United States, 29 March 2016 The California Department of Transportation (Caltrans) has announced that it will explore Dutch technology known as SolaRoad, which uses solar panels in roads to generate electricity to power street lighting, traffic systems, and electric vehicles.

#### <u>Free electric vehicle charging stations destined for Aussie shopping centres</u> The Fifth Estate, Australia, 17 March 2016

AMP Capital Shopping Centres has introduced free electric vehicle charging stations at a shopping centre in new Zealand and is considering introducing them in Australia this year.

#### London gets Uber-style app for zero-emissions eConnect journeys

Traffic Technology Today, United Kingdom, 16 December 2016 eConnect Cars, London's chauffeur-driven hire car service using all-electric vehicles, has launched a new booking app giving passengers the opportunity to book and pay for zero-emission journeys via their smartphone.

#### Airbnb, Tesla partner to make road trips easier for Model S owners

Fortune, United States, 20 August 2015 Electric vehicle company Tesla will provide its home charging stations to eligible Airbnb hosts free of charge.

#### Off road trials for "electric highways" technology

Highways England press release, United Kingdom, 11 August 2015 The UK Government will conduct trials of technology designed to recharge electric and hybrid vehicles while on the move.

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