# ELECTRIC VEHICLES THE FACTS

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#### **SO... WHAT IS AN ELECTRIC VEHICLE?**

This term covers all types of vehicles that use an electric motor/s as part or all of their drive system. They are charged with electricity from the grid and store it in rechargeable batteries that power their electric motor. Electric vehicles entering the market this year offer an average battery drive range of 400km. Battery electric vehicles have fewer moving parts than a conventional petrol/diesel vehicle with less frequent, cheaper and relatively easy servicing.

The transition has begun with

**33,410** ELECTRICAL VEHICLES

sold in Australia in 2022.

A 94% increase from 2021

Australia is still lagging behind the global average, but as Electric Vehicle prices came down in 2022, this is starting to change.

Industry experts are predicting that no new petrol cars will be sold in Australia by 2027. Many car manufacturers have already set timelines to becoming 100% electrical, including Mercedes and Jaguar Land Rover who have both announced strategies to cease production of petrol and diesel vehicles beyond 2025. Quite simply change is inevitably coming, and you don't want to be left behind!

The Australian Government has recently released the <u>National Electric Vehicle</u> <u>Strategy</u> outlining initiatives to support the transition to electric vehicles.

#### **ELECTRIC VEHICLE INFRASTRUCTURE IS VITAL**

The lack of charging infrastructure constitutes one of the primary barriers to electric vehicle uptake in Australia and particularly in regional areas. Electric vehicles charging infrastructure should not be pursued as a revenue raising exercise but as a way of attracting new business and contributing towards a more sustainable future. Developing 'destination charging' capacity encourages public patronage and increases local economic benefits.

## THE BENEFITS

Not just benefitting the environment, but the economy too, including the consumers hip pocket. A petrol or diesel vehicle contributes well over twice the amount of annual CO2 tail pipe emissions than all-electric vehicle. Emissions associated with electric vehicles come from the source of the power; as the grid becomes cleaner, so do electric vehicles!



to achieve  $\ensuremath{\mathsf{Paris}}$  Agreement targets from the transport sector

#### HOW MUCH DOES IT COST TO RUN AN ELECTRIC VEHICLE?

The cost to 'fill up' on electricity is a lot less than petrol or diesel! The average cost of running an electric car is \$0.33 per elitre (based on an assumed rate of \$0.22 per kwh) compared to the cost of running a car on fuel at around \$1.50 per litre on average. The average battery electric vehicle driving range has increased around 50% since 2016, meaning your charge lasts longer.



An electric vehicle uses approximately 1 kWh of battery electricity for every 5-6km of travel.



This means that the average electric vehicle uses 15-20kWH for every 100km.



If you pay 25 cents per kWh for your electricity, this would equate to \$3.75 - \$5 per 100km. Or equivalent to paying \$0.50 per litre at peak electricity prices!

Electric Vehicles Report, Australian Parliament House 2019

#### WHAT IS AN ELECTRIC VEHICLE CHARGING STATION?

Like a petrol pump, but supplying electricity instead!

Level 2 chargers use a 240-volt electricity supply and are the most popular choice for home and public use. These chargers allow for a wide range of charging speeds, up to a maximum of 19.2 kilowatts (about 112kms per hour of charging). Most common and cost effective is a three phase, 22kw charger.

#### WALL MOUNTED OR FLOOR MOUNTED?

Basic wall chargers start at \$1000 with installation around \$1200. There are several options and features to consider such as output, socket type, WiFi and cloud billing capability, LED display and 4G connection. Like most technology based hardware, the more features the higher the price.



A Level 2, 3 phase 22kw wall box charger with flexible output, does not require much space and provides sufficient 'top-up' charging capabilities for one vehicle at a time.



A floor mounted charging station generally comes with the added benefit of a dual plug, so can charge two vehicles simultaneously. Level 2 public charging stations usually charge between \$0.20 - \$0.25 per kWh.

## WHY GET ONE NOW?

Research tell us that EV drivers plan their trip according to where they can charge, repeatedly returning to the same locations. So why not future-proof your business and add a new service? Charge for charge or complimentary – your choice.

An EV charging location app (such as PlugShare, ChargeFox etc) will identify your business as a place that is electric vehicle charge friendly, drawing drivers to 'charge up' and alleviate their 'range anxiety', spending time and money at your business and those nearby. By providing electric vehicle charge stations you can promote your business as environmentally conscious and supportive of green initiatives!

### **LEAD THE WAY!**

As a major tourist destination the Capricorn Coast needs to be Electronic Vehicle friendly. Installation of an electric vehicle charger could put your business on the map!

Why not lead the way and entice electric vehicles drivers off the highway and make your business their next destination.

#### QUEENSLAND ELECTRIC SUPER HIGHWAY USAGE

**Queensland Electric Super Highway usage** 



Electric Vehicle Snapshot, Queensland Government 2023

