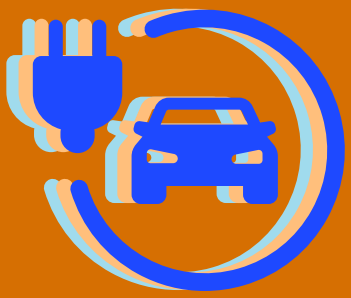
Jewish Climate Network

Transport Resource

Learning about, choosing, sourcing and purchasing an e-bike, e-scooter, EV or PHEV can be confusing.

This resource will help you get started on your journey.



If you're looking to rent/buy an Electric Vehicle or Plug-in Electric Vehicle (PHEV), skip to page 8.

Why is this action impactful?

Shifting commuters to lower-emission transportation is a huge step in achieving a net-zero future. **The global transportation sector is responsible for 23% of greenhouse gas emissions.**

However, modelling indicates that over the next 30 years a widespread adoption of e-bikes can reduce carbon dioxide emissions by a cumulative 1.14 Gt, **the same as taking eight million cars off the road.**

As leading climate think-tank, Project Drawdown, explains: "The decrease in car trips and increase in bicycle trips has concomitant benefits in **congestion, air quality, noise, stress, and travel delay**.

Additionally, e-bikes:

- are cheaper.
- emit less emissions.
- use less materials than cars when produced.
- do not cause congestion.
- can be faster in congested traffic than cars.

Additional benefits of e-bikes include improvements to **health and positive impacts on the local economy** because bike users tend to shop in their local community."

What is an e-bike or e-scooter?

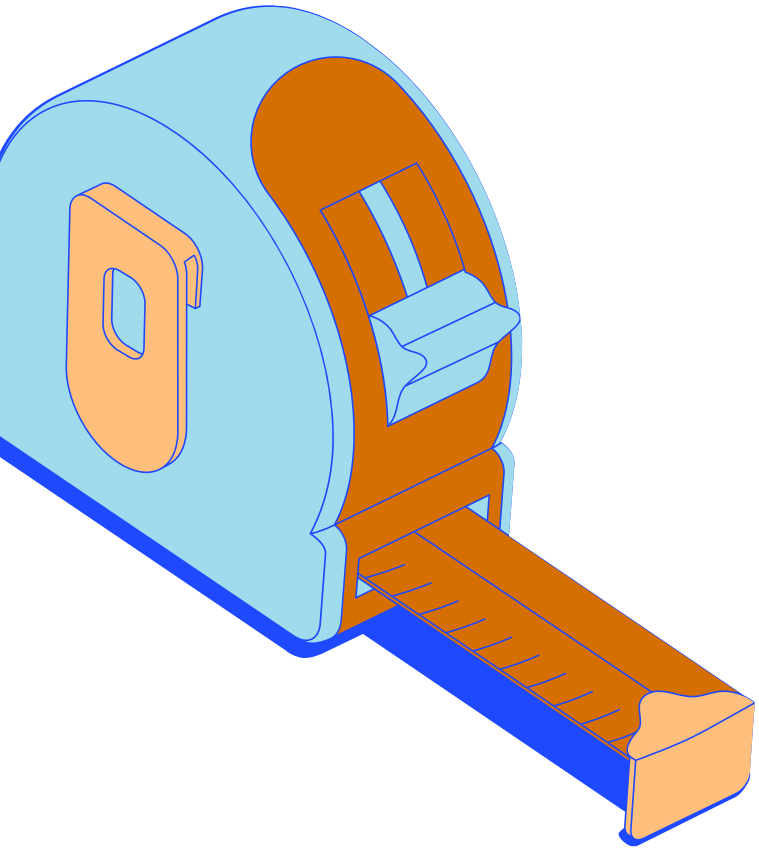
An electric bike, or “e-bike”, is a bicycle that is fitted with an electric motor that assists the rider when pedalling - making it far easier to ride. **It can feel as if you are always riding downhill!**

Batteries on modern e-bikes are sufficiently large to enable long trips of up to 100 km on a single charge. However in the event a battery runs out during a ride, **the user can simply continue to pedal** as they would on a conventional bike.

Recharging the battery is as simple as plugging the bike into the wall at home, and some bikes have removal batteries for easy charging access.

Jargon explained

Wrapping your head around the jargon of e-bikes will go a long way to helping you choose the best e-bike for you.
Most important e-bike terms are related to the type of battery and motor used on the bike, which explain the range and power of the bike respectively.



'Range'

In Australia, an e-bike's battery capacity will be described in either Ah **(amp hours)** or Wh **(watt hours)**.

The higher this number, the larger the capacity, and the further you can travel with the assistance of the motor **before needing to recharge.**

The range of an e-bike can vary widely depending on a number of factors, including...

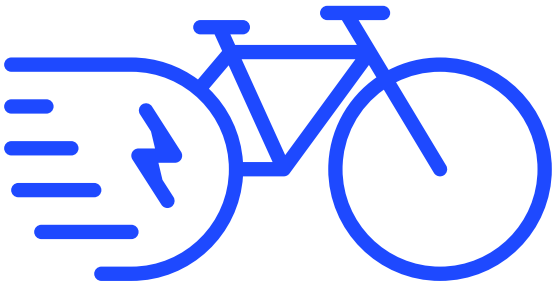
- the size of the tires.
- the weight of the bike & rider.
- the terrain.
- the level of pedal assist used.

That being said, below is a table showing the **approximate range of an e-bike in kilometres** based on the **Watt-hours or Amp-hours of its battery:**

Battery capacity (Wh)	Battery capacity (Ah)	Range (km)	Price
300	8.5	25-40	$
400	11	35-50	$
500	14	45-65	$$
600	16.5	55-75	$$
700	19.5	60-90	$$$
800	22	70-100	$$$$

'Power'

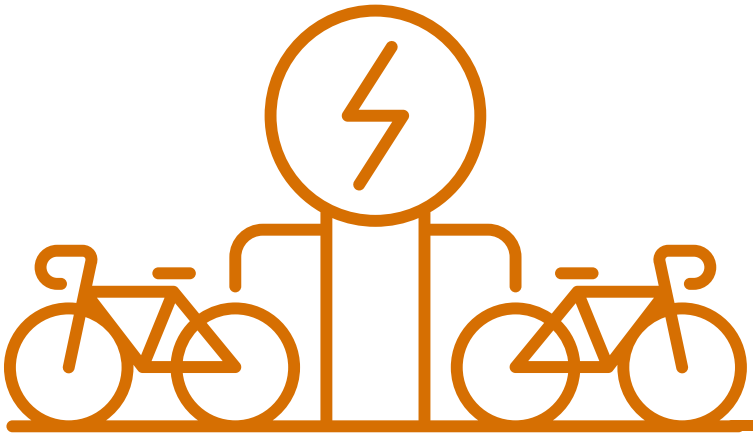
E-bikes are often advertised with a particular **power rating**, usually given in **watts** (e.g. 250 W or more).



Simply, the higher the watts, the more power the motor can produce.

However, currently in Australia e-bike motors are restricted by law to 250 watts when used on the road.

E-bikes advertised with larger motors can only be used off-road such as for recreational mountain bike riding. These more powerful bikes are often more expensive too.



Aussie e-bike brands

Below is an overview of the many e-bike brands currently on sale in Australia. It provides you with information on the **brand, price ranges, images and different model types**. Have a look through the link below to see if there is a model that stands out to you:

https://www.canstarblue.com.au/vehicles/ebike-brands-australia/

Renting e-bikes

Below are a number of e-bike rental companies in Melbourne and Sydney. **You may want to try renting** one for a month or two before looking to buy.

For Melbourne

https://lug-carrie.webflow.io/

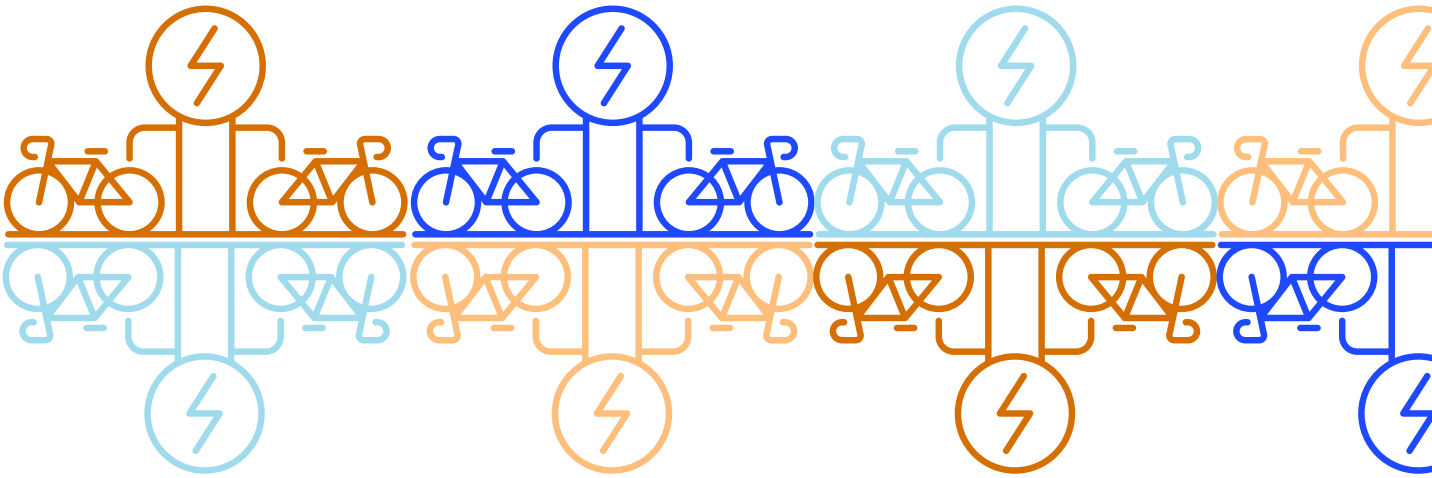
https://www.electricbikesuperstore.com.au/ebike-rental/

For Sydney

https://sydneyebikerentals.com.au/

https://sydney-electric-bikes.myshopify.com/

Buying e-bikes



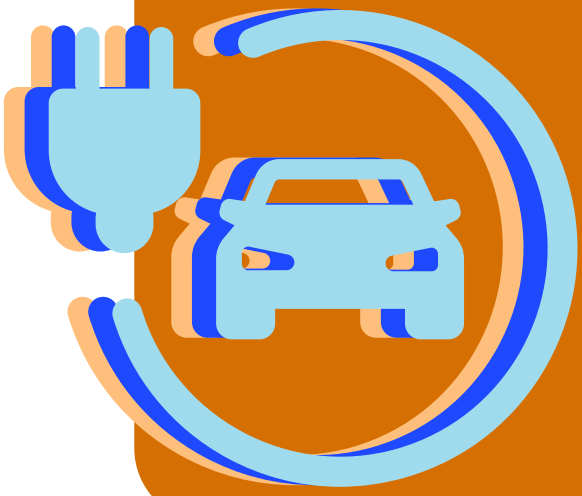
Your local bicycle retailer will have one or more e-bike models available, so visit in-store to speak to a professional and test ride a model.

If you are looking to consider a wider range of models, there are many Australian online stores with large selections of e-bikes and e-scooters.

Here are some examples:

- Pedl
- 99 Bikes
- JB-Hifi
- Bike Scooter Hub

Buying an Electric Vehicle (EV) or Plug-in Hybrid Electric Vehicle (PHEV) ...



Why is this action impactful?

Choosing low-emissions transportation is a huge step towards the zero emissions world we need.

The passenger vehicle sector is responsible for 10% of Australia's greenhouse gas emissions.

Electric vehicles however, powered by home solar or renewable energy from the grid, **produce no emissions.**

EVs are the vehicles of the future - their widespread adoption is only a matter of time.

What is an EV or PHEV?

Electric Vehicle (EV)

An EV gets its energy from electricity (instead of petrol or diesel), plugged into a charger or wall socket and stores this electricity in a battery (instead of a petrol tank).

Plug-in Hybrid Electric Vehicle (PHEV)

A PHEV has both a petrol and electric motor, with a battery that can be charged via a wall socket.

Unlike standard hybrid vehicles, PHEVs can drive on electric power for trips of up to 80 km before discharging and the petrol engine takes over.

While an EV is preferable to a PHEV because they are entirely emissions-free, PHEVs are currently more affordable and their battery range is still double the average daily commute.

Other benefits?

Emissions aside, EVs promise a range of exciting benefits, including:

Cheaper Fuelling

- Cheaper fuelling costs, approx. $10 cheaper per 100 km compared to a petrol vehicle.

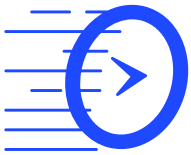
Cleaner

- EVs produce zero tailpipe emissions, making them much cleaner for the environment and public health.

Quieter

- EVs are quieter and provide a more comfortable and peaceful ride, reducing noise pollution in urban areas.

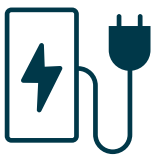
Smoother



- EV motors offer instant torque, providing smooth and immediate acceleration without the need for gear shifting or waiting for the engine to rev up. This can make for a thrilling driving experience!

Less Maintenance

- With fewer moving parts, EVs require less maintenance and can potentially have lower lifetime operating costs.



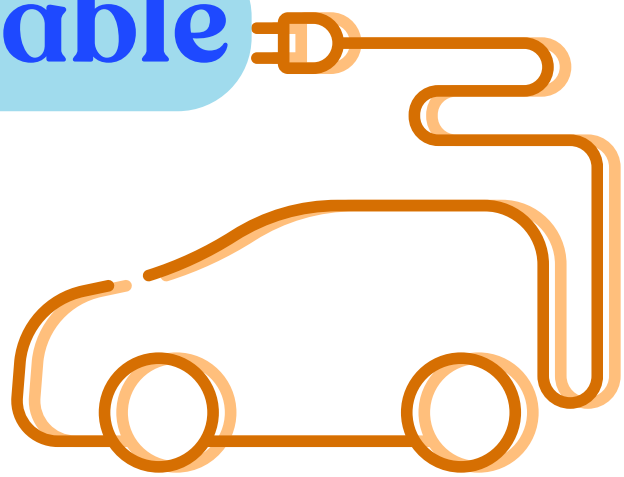
Flexible charging

- EVs can be charged at home or at public charging stations, providing more flexibility and convenience than needing to visit a petrol station.

Understand the costs

The following resource provides a basic understanding of the total savings/cost of ownership of an EV, with and without batteries and solar: https://electricvehiclecouncil.com.au/cost-calculator/

Models available in Aus



The number of EV models is rapidly expanding in Australia, with over 45 to choose from and 95 variants.

More are on the way, as overseas manufacturers realise the potential of the Australian market and as communities like ours advocate for stronger fuel efficiency standards and better incentives.

These resources provide a comprehensive lists of all EV models on offer in 2023, with detailed information on price, range and availability:

- EV models currently available in Australia
- EV Buying Guide in Australia
- PHEV models in Australia

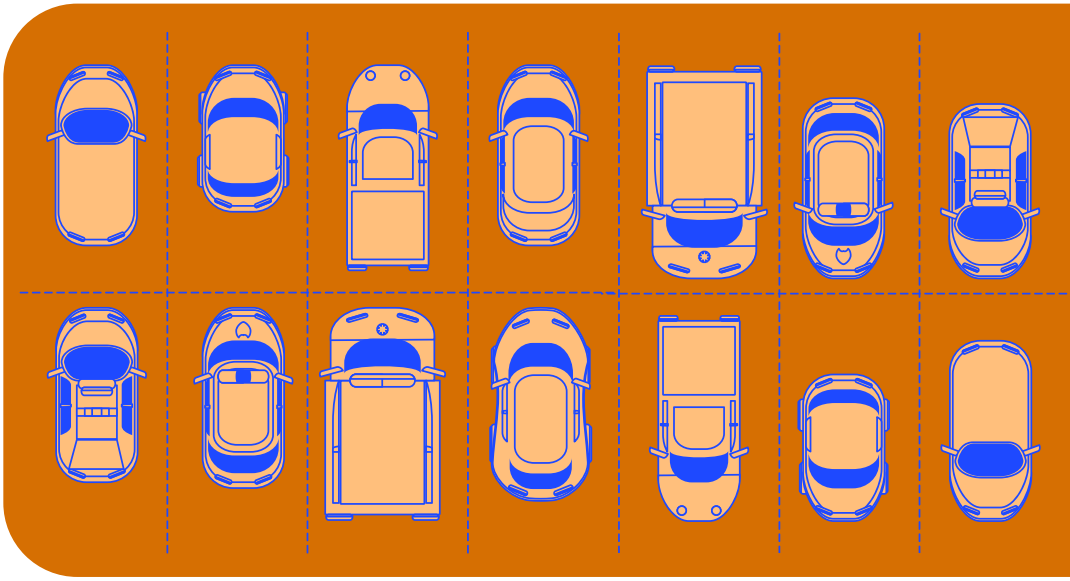
Book a test drive

Get excited and book in a test drive today!

This is the easiest way to get your transport pledge rolling - simply enjoy the unique experience of driving a modern, high-tech EV for free by contacting your local dealer.

We've done half the work for you - here are some links for dealers near you for popular EV brands:

- Tesla
- BYD
- Hyundai
- Polestar
- Nissan
- BMW
- MG
- Kia

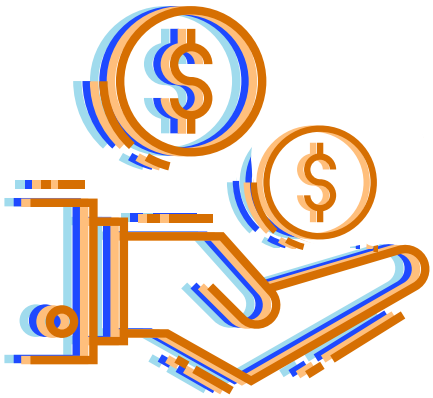


Second-hand

Looking for something a bit cheaper?

The Good Car Co is an excellent place to find quality second-hand electric vehicles, in addition to the broader second hand market.

Financing



Melbourne rebate

To reduce the purchase cost of EVs, eligible households and businesses in Victoria can receive a $3,000 rebate on EV models with a dutiable value of less than $68,740.

This is applied at the point of sale by the car dealership, so when you purchase be sure to remind the dealer that you may be eligible for the rebate. More information here:
https://www.solar.vic.gov.au/zero-emissions-vehicle-subsidy

Sydney rebate

To reduce the purchase cost of EVs, eligible households and businesses in NSW can receive a rebate in addition to the abolition of stamp duty, bringing discounts up to $5540 on EV models with a dutiable value of less than $68,750.

Owners must actively apply for the rebate here:
https://www.nsw.gov.au/driving-boating-and-transport/ev-rebates

Incentives for other states

https://www.whichcar.com.au/news/electric-vehicle-incentives-australia

Bulk buy

Bulk buy (BB) programs are another great option to help **reduce the costs of EVs.** BBs require a group of consumers to join together to purchase the same EV model, and are rewarded with a discounted price.

If you are interested in joining a potential BB program please express your interest here. If there is sufficient interest JCN will look to facilitate a BB program directly with a manufacturer or in tandem with a local council.

Novated Lease

A novated lease is a car financing arrangement where **an employee leases a vehicle through their employer**. The employer pays the lease payments from the employee's pre-tax income, **reducing their taxable income and potentially lowering their tax liability**.

At the end of the lease term, the employee may have the option to **purchase the vehicle outright, refinance the lease, or return the vehicle to the leasing company**. Read more about a novated lease at https://positivesalarypackaging.com.au/electric-car-novated-lease/

Further info

If you are looking for some more detailed information or have burning questions about electric vehicles check out The Driven's FAQ's or sign up to their newsletter.

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