

The Power of 3

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Driving the future further

Overview

No matter what the Aussie pollies say, electric vehicles (EVs) are the way of the future. The International Energy Agency predicts 125 million on roads worldwide by 2030 – and by 2040, says [Forbes](#), they'll comprise more than half of passenger car sales globally.

In Australia, various duties and taxes, a lack of EV rebates, risible concerns about range anxiety and poor (read virtually non-existent) charging networks are inhibiting EV uptake nationally. Sooner or later, though, common sense will prevail ... despite no revenue from fuel excise!

Already, Toyota, Hyundai, Renault, Nissan and Kia, to name but a few, offer EVs for sale in the Antipodes. For those with deeper pockets though, or looking for something different, here are some of the non-ICE (internal combustion engine) cars that will grace our roads from 2020.

What to drive in Australia next year – when only the latest (EV) will do!



Porsche Taycan Turbo

Described as an 'electric weapon' by journalist Toby Hagon, this ultra-sleek, 2.3 tonne, 5-metre long, four-door EV prioritises speed and handling. The Taycan Turbo and Turbo S, the first Porsche all-electric models to grace the world's highways and byways, are all-wheel drive (AWD) and feature two permanent magnet synchronous motors, one up front and another at the rear. The thermally managed lithium-ion battery is integrated deep in the underbody and runs with 800-volt architecture for greater efficiency. Able to reach 100 km/hr in 2.8 seconds, and with a top speed of 260 km/h flat out, the Taycan Turbo has a range of around 400 km, depending on the model. Alas, says [CleanTechnica](#), that's just over half the range of the base Tesla Model S – but, says Porsche, its 'new mobility concept' extends beyond the vehicle itself to include an 'optimally integrated vehicle charge port, practical charging equipment and charging facilities for use at home and on the road'. With a hefty price tag (circa A\$300,000) to match its bulk, fans will buy it for that 'driver's car' feel Porsche prides itself on.

Audi e-tron

[MyElectricCar.com](#) finds the name unfortunate, 'étron' meaning 'turd' in French. Such cavils aside, however, this five-passenger, AWD luxury SUV also boasts dual electric motors and none-too-shabby acceleration to 100 km/hr in just 5.7 seconds. Top speed is 200 km/h and range up to 400 km on a full charge (on that front it's almost as poor a performer as the Taycan). Like Porsche too, Audi compensates by offering fast, efficient home and/or office charging systems. Also, the e-tron is compatible with both DC (up to 150 kW) and AC (up to 11 kW) charging stations. Luxurious, spacious, priced from A\$150,000 to A\$170,000 and offering "infotainment literally at the driver's fingertips," it's just the thing for the daily school run.



Tesla's Cybertruck (CYBRTRCK)

CYBRTRCK

Unless you've been living under a rock, you can't have escaped the hype surrounding Tesla's edgy, six-seater, dual-cab, off-road electric pickup, complete with stainless-steel exoskeleton and heavy-duty 'Armor Glass'. That wealth of publicity led to 250,000 orders being placed worldwide within a week of its unveiling. Mind you, that figure could be related to the size of the deposit. In Australia, just A\$150 (fully refundable) secures you a place in the Cybertruck queue. However, no-one will actually

see their *Blade Runner*-inspired steel beast – said to offer 'better utility than a truck with more performance than a sports car' – before 2022. Grunt-wise, the most powerful version of the Cybertruck (it's available in single, dual- and tri-motor variants), priced at US\$69,900, can accelerate from 0-60 mph in 2.9 seconds and tow loads of up to 6,400 kg. And, in that top-tier model, a single charge will take you more than 500 miles (805 km). But ... where are the side mirrors and headlights, and what about a crumple zone?

MG ZS EV



If eye-watering prices are not your thing but time-honoured badging is, then consider this little beauty. The first 100 MG ZS EVs to sell in Australia will do so at a reduced price of \$46,990; however, subsequent buyers will pay the full price, which MG has not yet revealed. With a 44.5 kWh battery for up to 262 km of driving range, this MG can fast-charge in 40 minutes (or seven hours from a domestic outlet). And, like all EVs, it offers regenerative braking, meaning energy is captured when the car slows down or goes downhill and is returned to the battery.

Mercedes-Benz EQC 400



According to [carsguide](#), the stylish, compact AWD EQC 400 sports an 80 kWh lithium-ion battery pack, 405-volt architecture and two asynchronous motors with a combined output of 300 kW. Mercedes claims an Australian Driving Rules (ADR) range of 434 km with waste-energy regeneration factored in, although in real life the range as probably a more modest 414 km ... again, no match for that of the Model S, although owners do get unlimited free access to the [chargefox rapid-charging network](#) (currently about 20 sites but marked for rapid expansion). The EQC 400's maximum on-board charging rate is 110 kW, so 220 km of range can be added in 30 minutes. Priced at around A\$150,000, there's still time to save up for it – the EQC 400 isn't due in Australia until October 2020.

Glory E3 SUV



Described as upmarket and comfortable, with slick and responsive electronics, this premium Chinese-made vehicle will be available in Australia in the first quarter of 2020. Priced at around A\$60,000, the Glory E3 has a 52.5 kWh battery that can fast-charge in 30 minutes (12 hours from a domestic 10-amp socket and eight from a 15-amp outlet). The driving range is around 400 km.

And finally ... For those (aged 16+) without a driver's licence, Citroën has revealed its vision for the future of mobility in cities: the **Ami One Concept EV** – an advanced-concept 'urban mobility object' designed as an alternative to bikes and cars. With a top speed of about 28 mph (45 km) and a range of 65 miles (105 km), it would be available for rent – primarily on-demand through an existing car, bike and scooter app – for trips ranging from five minutes to five hours. Said to be 'robust' despite its size (1.5 metres high and 2.5 metres long, with a folding roof), it can be controlled by two buttons on the steering wheel, plus voice commands to the app. The future for transport is WOW!



Which **Perth company** is providing end-of-life solutions for spent EV batteries?



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