QUEENSLAND ENERGY AND JOBS PLAN



Power for generations



Charging ahead to our renewable energy future



November 2023



Minister's foreword

Queensland is on a clear road to a renewable energy future.

Our Queensland Energy and Jobs Plan (QEJP), Queensland's Zero Emission Vehicle Strategy and QFleet Electric Vehicle Transition Strategy have us on a path to achieve 70% renewable energy by 2032 and zero net emissions by 2050.

To support this transition, it is critical that we tackle emissions in transport.

We are already subsidising the purchase cost of electric vehicles (EVs), expanding our EV super highways, and decarbonising our government vehicle fleet.

The next phase under the QEJP is an investment of \$42 million to get government buildings ready to charge a fleet of zero exhaust emission vehicles (ZEVs) and install more charging infrastructure in public spaces.

This includes providing greater access to charging infrastructure in the community and government

buildings, and boosting the second-hand market by selling government-owned EVs. This means more people can take up the benefits of cleaner transport, and EVs can more efficiently integrate into Queensland's electricity SuperGrid.

Not only will these actions help us achieve our renewable energy and zero net emissions goals, they will also support jobs and the development of skills by investing in the EV industry, including charging infrastructure, network connections and supply chains.

I'm proud of how government agencies are working together to make our renewable energy future a reality.

If you would like to help drive our EV transformation and propel us toward zero net emissions, you can find out more via the websites on the back of this document.

The Honourable Mick de Brenni MP

Minister for Energy, Renewables and Hydrogen and Minister for Public Works and Procurement





Queenslanders are getting on board the electric vehicle (EV) revolution. EV uptake has increased by 135% in the 12 months to 30 September 2023.

The pace of change to cleaner transport is accelerating, fast. Queensland is predicted to have as many as 1.6 million EVs on the road by 2035.

To keep pace with the increasing move to EVs, we

PROJECT	Make more EV charging sites available to the public	
CHALLENGES	Climate change issues Confidence to purchase an EV Easy access to affordable EV charging	
APPROACH	Chargers along the Queensland Electric Super Highway Chargers on government sites available for public use	
INVESTMENT	\$30M + \$10M	
OUTCOMES	Up to 500 public access chargers in government buildings 46 fast charging sites across 30 towns by end of 2024 Charging sites every 150km Increased EV purchases	



Prepare the energy system for charging more EVs

Sufficient electricity to charge EVs without negatively impacting electricity supply Affordable charging costs

Trialling EV chargers in public transport commuter carparks Work with industry to overcome any barriers to EV charging

\$12M

EV charging solutions are shared with industry to support public and private EV charging Reliable, affordable and convenient charging stations at commuter carparks



SEPTEMBER 2022

SEPTEMBER 2023

29,955 EVs

2,923

need enough charging sites across the state, an energy

system to meet vehicle charging demands, and an

Through the Queensland Energy and Jobs Plan (QEJP)

and Queensland's Zero Emission Vehicle Strategy we

are investing in three key projects to meet the increasing

affordable, quality, second-hand EV market.

demand for EVs and related challenges.

Transition our government passenger vehicles to EVs

Sustainable, liveable communities
Affordable second-hand EVs
Decarbonising the transport sector

QFleet's eligible* vehicles to be 100% zero emission

Prepare second-hand EVs for public auction

100% EVs by 2026*



Less carbon emissions A quality second-hand EV market



Make more EV charging sites available to the public

Many Queenslanders are interested in purchasing an EV as part of action to help address climate change. For them to have the confidence to purchase an EV, and drive in their communities and travel across the state, they need easy access to affordable charging stations.

Queensland Electric Super Highway

Queensland already has a network of public fastcharging stations along the Electric Super Highway. By the end of 2023, there will be 53 fast-chargers along the 5,386km Super Highway. And by the end of 2024 there will be another 46 fast charging sites across 30 towns through a \$10 million commitment to co-fund charging infrastructure under Queensland's Zero Emission Vehicle Strategy.

Government chargers available to the public

We are also installing up to 500 EV chargers in government buildings where the community can access them, for example, at hospitals, training centres, museums and convention centres.

With the \$30 million investment under the QEJP, we are prioritising the installation of EV charging stations in locations where they will have the greatest use, both by government employees and the public.

EXISTING GOVERNMENT SITES WITH PUBLIC EV CHARGERS

- Government House 168 Fernberg Road, Paddington
- Gold Coast Convention and Exhibition Centre – 2684-2690 Gold Coast Hwy, Broadbeach
- Carseldine Transport and Main Roads customer service centre – 532 Beams Road, Carseldine
- A further 34 sites in the pipeline for delivery in 2023-24.

How to find and use government EV chargers

More and more government charging sites will be available each month as the installation program rolls out.

These sites can be found by using the <u>Plugshare</u> app for local charging stations.

To be fair to others, users are encouraged to vacate the space after sufficiently charging their vehicle.

Costs of charging at government sites

Visitors to government sites will pay to charge their vehicles based on a low-cost fee structure supported by surplus renewable energy, like solar, when it is available.

Prepare the energy system for charging more EVs

The increasing uptake of EVs in Queensland means we need an energy system that can supply the power to charge them. That system needs to have the necessary energy and be cost-efficient, not just for EV drivers, but for all electricity customers. We also need convenient sites where EV owners can charge their vehicles affordably, if they cannot, or do not want to, charge at home.

Trialling solutions

In an Australian first, EV chargers in public transport commuter carparks will help us trial ways of efficiently controlling how much power comes in and out of the energy system, so the increase in EVs being charged does not negatively impact electricity supply in the community.

This \$12 million public charging program will be delivered over two stages.

STAGE 1 – We will install both low and medium EV chargers in commuter carparks at the **Eight Mile Plains bus station** and the **Coomera train station**. These park and ride sites were selected based on:

- location high-capacity carparks with spare capacity and access to solar power
- EV use EVs already park at the sites and there are high levels of EV ownership in area
- electrical capacity enough capacity to support smart EV charging.

STAGE 2 – We will work with a range of stakeholders across Queensland to help overcome any technical and commercial barriers to EV charging, and enable convenient and cost-effective public charging across the state.

We will share our outcomes and lessons learnt with industry to support public and private sector EV charging.

How EVs will be charged at commuter carparks

Chargers at commuter carparks are designed to charge vehicles during the day.

EV owners can drive to a park and ride site and leave their vehicle on charge all day while they catch the bus or train to work.

When returning to the vehicle at the end of the working day, the battery should be full and there will be no need to wait at a fast-charger elsewhere or charge at home overnight.

Costs of charging at commuter carparks

Charging EVs at commuter parking trial sites will have a cost to EV owners, but we will be trialling innovative rates to keep those costs affordable.

Charging EVs at commuter carparks will be a convenient and more sustainable alternative to charging overnight or at times of peak electricity demand in the evening. The rates for slower charging during the day, when there is ample solar power, will also be lower than fast charging.

Transition our government passenger vehicles to EVs

Queenslanders want to continue living in sustainable communities and have the option of buying affordable EVs. Part of ensuring this into the future, is a shift to zero net emissions in Queensland by 2050, which includes decarbonising the transport sector.

Decarbonising government vehicles

The Queensland Government's fleet manager, QFleet, has more than 10,000 vehicles to help deliver critical government services to communities across the state. We are working towards 100% of eligible passenger and SUV fleet vehicles being zero exhaust emission vehicles by 2026.

Transitioning QFleet's fleet to EVs will result in significant savings on running costs, including fuel and maintenance.

Already, there are 1,000 EVs active in the fleet or on order. We are also trialling new technology with a small fleet of hydrogen powered vehicles.

To ensure Queensland's frontline workforce can readily access the EV chargers needed to deliver the services Queenslanders require, more than 200 EV chargers are already available in government buildings, with more than another 1,000 to be installed across state in the next two years.

Second-hand EV market

After QFleet's EVs have served their purpose in delivering government services, they will be available at auction for the community to purchase. Ex-QFleet vehicles are highly valued in the second-hand market, and popular at vehicle auctions.

Selling QFleet's EVs at public auction will increase the availability of quality, affordable, second-hand EVs in the market each year.





Charging ahead – together

With almost 30,000 electric vehicles and 3,600 plugin hybrid electric vehicles now on our roads, we will continue to work with stakeholders to ensure our EV charging landscape is smart and sustainable.

We will share key learnings with the private sector, Charge Point Operators, industry, and fleet and building owners, to assist with EV uptake and the safe installation of chargers, which are integrated efficiently with the grid.

Our trials will inform future government policy and support efficient private investment, enabling continued affordable, clean, secure and reliable power.

More information about our EV-related projects will be available online as they progress, including locations of public charging stations and outcomes from the trials. Queensland Energy and Jobs Plan – www.qld.gov.au/energyandjobsplan Queensland's Zero Emission Vehicle Strategy – www.qld.gov.au/zeroemissionvehicles Queensland Zero Emission Vehicle Rebate Scheme – www.qrida.qld.gov.au/program/queensland-zero-emission-vehicle-rebate-scheme Queensland's Electric Super Highway – www.qld.gov.au/transport/projects/electricvehicles/super-highway Local charging stations – www.plugshare.com

