

**Submission
No 60**

**INFRASTRUCTURE FOR ELECTRIC AND ALTERNATIVE ENERGY SOURCE
VEHICLES IN NSW**

Organisation: Electric Vehicle Council

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Standing Committee on Transport & Infrastructure

NSW Legislative Assembly

NSW Parliament

**Electric Vehicle Council's response to the NSW Parliamentary Inquiry into
Infrastructure for electric and alternative energy source vehicles in NSW**

The Electric Vehicle Council (EVC) welcomes the opportunity to provide feedback to the Committee into Infrastructure for electric and alternative energy source vehicles in NSW. The EVC is the national peak body for the electric vehicle (EV) industry in Australia. Our mission is to accelerate the electrification of transport for a sustainable and prosperous future. We represent almost 100 businesses across the EV value chain, including car, bus and truck manufacturers, importers, operators, charging infrastructure suppliers, battery reuse and recycling companies, financiers, and network providers.

Introduction

Transport makes up almost one-fifth of Australia's emissions, with the vast majority of emissions coming from cars, followed by trucks.¹ Unfortunately, transport is also the greatest laggard when it comes to achieving our emissions reduction targets. The Department of Climate Change, Energy, the Environment and Water estimate that without action, Australia's transport emissions will likely be significantly higher than 2005-levels in 2030 – significantly out of step with the average, economy-wide federal government target of a 43% reduction.²

Based on current trends, it is likely that the transport sector will become Australia's top emitting sector in the near future, as other sectors of the economy – such as energy – rapidly decarbonise. While much of the technology is already available to decarbonise transport, the challenge for this sector is time; specifically, the amount of time it takes to turnover the vehicle fleet. As such, it is of the utmost importance that the decarbonisation of this sector is prioritised today in order to achieve net zero emissions by, or ideally before 2050. Vehicle electrification offers an opportunity to reduce road-based emissions through use of renewably-electrified fuels.

¹ <https://www.climatechangeauthority.gov.au/reviews/light-vehicle-emissions-standards-australia/opportunities-reduce-light-vehicle-emissions>

² chrome-extension://efaidnbmnnnibpcajpcgclclefindmkaj/<https://www.dcceew.gov.au/sites/default/files/documents/australias-emissions-projections-2023.pdf>

The EVC advocates for vehicle electrification to achieve emissions reduction targets,³ reduce particulate pollution and noise emissions, along with increasing geo-political stability through lower reliance on foreign oil and creating new jobs. Part of this is achieved through support for policy such as the New Vehicle Efficiency Standard (NVES), as well as through lowering barriers to accessing charging infrastructure and keeping electricity prices down.

The market

EV adoption rates in Australia have been non-linear.

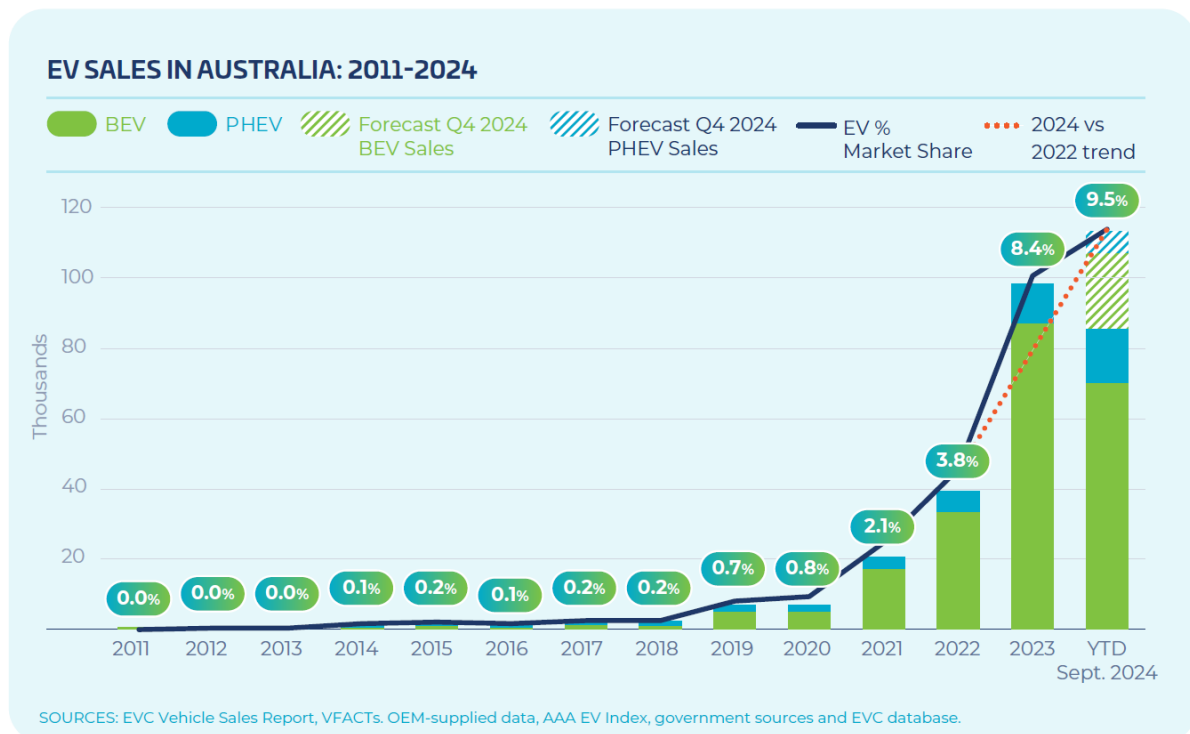


Figure 1: EV sales in Australia: 2011-2024. EVC's State of EVs report, p10.

With a rapid increase coming out of the COVID years that featured austerity and supply constraints, 2024 saw a correction of the trend towards what is usually expected of new technology adoption curves,⁴ with significant increases in the availability of diverse EV products and increasing consumer adoption of them.

³ [Australia Legislates Emissions Reduction Targets | Prime Minister of Australia](#)

⁴ State of EVs 2024 - Electric Vehicle Council, [Adoption Curves Explained by McKinsey Alum | Examples & Best Practices](#).

The EVC recognises the need to achieve 1 million EVs (battery electric vehicles and plug-in hybrid electric vehicles) on the road by 2027, to be on a trajectory to meet net zero by 2050. This requires EV adoption rates to be around 27% in 2027 and 50% in 2030.

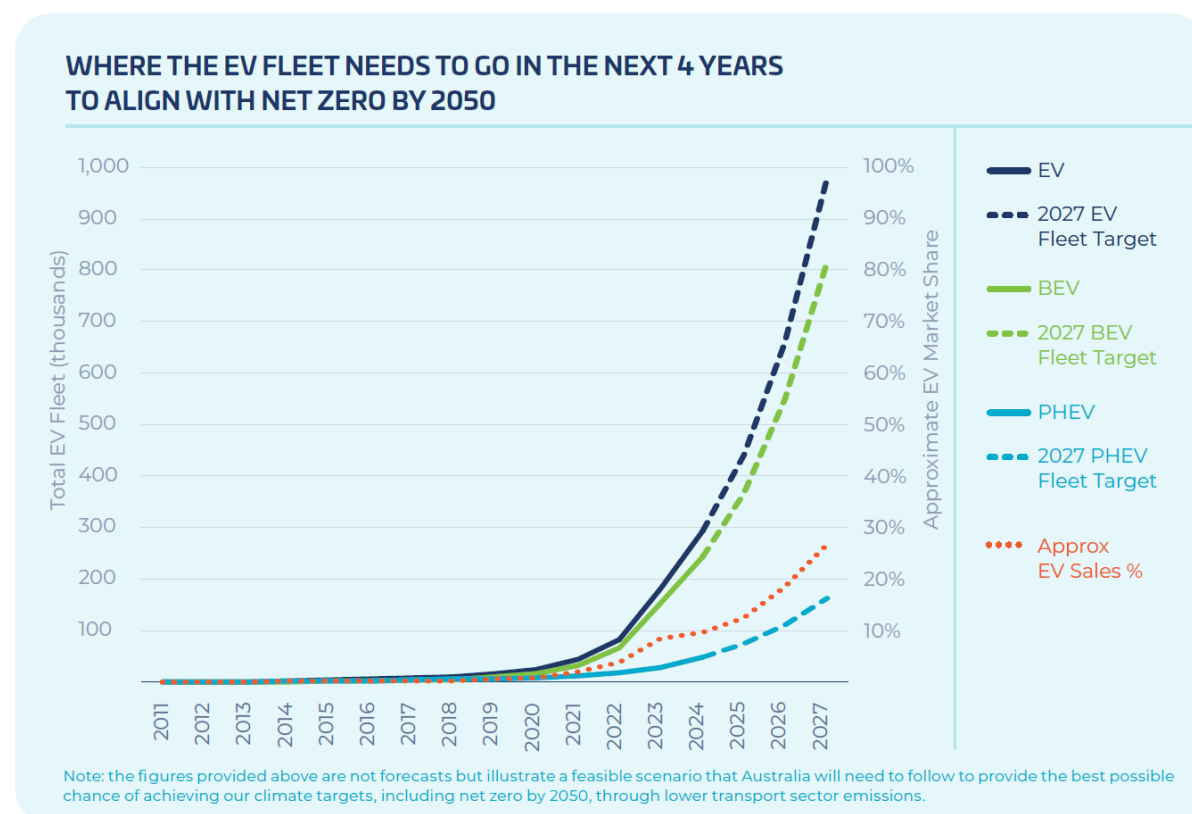


Figure 2: Where the EV fleet needs to go in the next 4 years. EVC State of EVs report, p13.

The availability of options to charge an EV is important to consumer confidence in making the choice to purchase. More than 90% of dwellings in Australia have some sort of option for parking an EV on the property.⁵ A majority of these dwellings will have easy access to a power point somewhere nearby the car parking space. Public charging options remain an important option for renters, strata title occupants, as well as for long trips, ride-share, commercial and freight applications. As their visibility is also understood to boost consumer confidence in vehicle electrification, their significance cannot be understated.⁶

For an emerging technology, EV charging is growing at pace. In Australia, there are approximately 2,000 high-power EV chargers, an increase of 90% from mid-2023 to mid-2024 with year-on-year growth (Figure 3). To date, that is equivalent of about 1/3 the size

⁵ EVC research on Australian parking availability in April 2025.

⁶ <https://www.mckinsey.com/industries/public-sector/our-insights/building-the-electric-vehicle-charging-infrastructure-america-needs>

of the petrol station footprint in Australia and does not include slower rate charging that is found in shopping centres, homes and at the kerbside.⁷

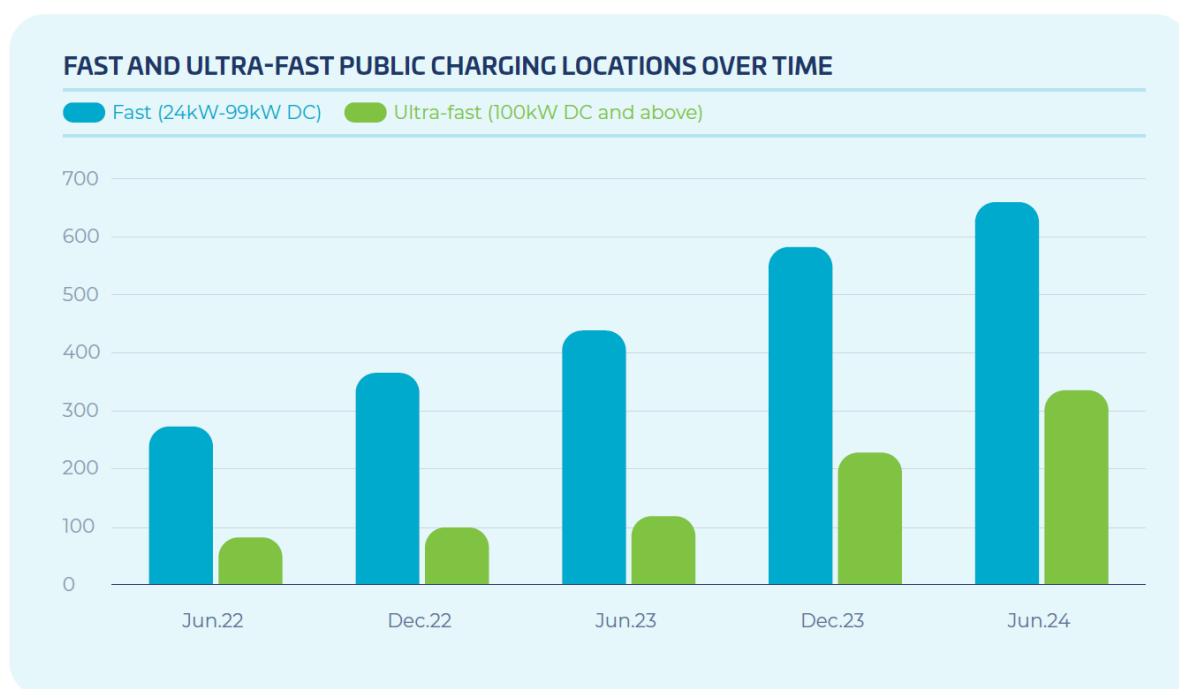


Figure 3: Fast and ultra-fast public charging locations

While sales are increasing year on year, EVs currently only account for over 2% of vehicles on Australian roads, indicating the need for urgent and continued government action.⁸ The location of EV supply equipment (EVSE) is critical to ensure:

- efficient use of the electricity and road transport networks;
- acceptable utilisation of EVSE; and
- to act as a signpost to prospective EV owners that there are options for charging near the places they typically travel.

Getting the balance right between a healthy charging sector and encouraging EV uptake through ample charging infrastructure is crucial. To support regional motorists, prospective EV owners and to encourage economic growth in the regions, the EVC is proposing an 'EV Friendly Towns' initiative. This program will involve local councils as well as state governments in collaboratively establishing public awareness campaigns and educational support to normalise EV driving, support local businesses, boost regional tourism and

⁷ <https://digital.atlas.gov.au/datasets/digitalatlas::petrol-stations/explore>

⁸ [State of EVs 2024 - Electric Vehicle Council](#) p13

encourage regional infrastructure access, as EVs remain the least carbon and cost intensive motoring option.

Growing NSW's Charging Infrastructure

Expanding EV charging infrastructure is critical to meeting the target of 1 million EVs on Australian roads by 2027. Governments and regulators have key decisions to make about the best model for Australia to roll out kerbside charging infrastructure.

Before government and regulators support any proposed models for kerbside charging that require changes to roles and responsibilities of market participants, including the current proposal put forward by DNSPs, we call for governments to run a thorough and consultative inquiry.

This process should consider what can be learned from other countries, and examine which model is best for speed of rollout, cost to government, customer impacts, and the competition issues that arise if regulated monopolies compete with private companies.

Removing barriers to infrastructure rollout

The EVC frequently advocates for the following measures to enable deployment of EV charging infrastructure in a timely and cost-effective manner. Based on lessons learnt from extensive rollouts to date, the key issues to address are community and local area planning, opening access to distribution networks by improving data sharing and processes, and embarking on tariff innovation to recognise the benefits of EV charging for all consumers.

Network capacity data sharing

It is essential for DNSPs to provide sufficiently granular network capacity data, at the pole and pad mount transformer level, to support strategic planning and the efficient deployment of charging stations. The Energy Security Board (ESB) and the Australian Energy Regulator (AER) have highlighted the importance of this transparency through the Data Strategy and Network Visibility Project.⁹ The EVC is particularly supportive of initiatives that support the identification of suitable locations for EV charging on the network, including Essential Energy's NSW network-specific capacity tool.¹⁰

⁹ [Network visibility | Australian Energy Regulator \(AER\)](#)

¹⁰ [State of EVs 2024 - Electric Vehicle Council](#) p48.

Support for second lines of supply

A second line of supply to a property is a second network connection. These can be useful where the existing switchboard on a property is far from a proposed EVSE installation site, is logistically difficult to connect, unsafe or disruptive to existing operations. To ensure the reliability and accessibility of EV charging stations, DNSPs should be encouraged to facilitate the provision of second lines of supply to key commercial premises, including retail locations and petrol stations. We recognise Essential Energy and Ausgrid for their leadership in this area.¹¹

Innovative tariffs

Distribution networks and CPOs agree that public electric vehicle charging presents a significant opportunity to improve overall electricity network efficiency. Benefits of public charging include greater utilisation of existing network assets, demand that aligns with excess solar generation (solar soak) and avoidance of peak network events given connected and highly controllable technology. However current network tariffs don't consider these benefits and result in high costs for CPOs that must be passed on to drivers. Tariff innovation, developed through cooperation between networks, CPOs, regulators and governments, will ensure that public charging is affordable for EV drivers while also generating electricity network cost savings that can be passed on to all electricity consumers. Innovative tariffs also offer opportunities to support cost efficiencies in regional and low-utilisation areas to meet increased demand over the next few years.

Publication of standard FAAs

Standardisation of Facilities Access Agreements (FAAs) for mounting and connecting EVSE to power poles would enable charge point operators to apply to DNSPs with confidence in the cost and likelihood of success.¹²

¹¹¹¹ https://www.essentialenergy.com.au/connections/Multiple-Points-of-Supply-Guideline?utm_source=ehq_newsletter&utm_medium=email&utm_campaign=ehq-New-Guideline-for-Multiple-Points-of-Supply; <https://www.plugshare.com/location/532494>; <https://www.ausgrid.com.au/-/media/Documents/Technical-Documentation/ES/ES1-Premises-Connection-requirement.pdf?rev=46e15d45859448549d62ff291878b871>

¹² [EVC response to the AER – PLUS ES trial waiver consultation - Electric Vehicle Council](#)

Support for local governments

While Federal and State Governments have a significant leadership role to play in the expansion of public charging networks, there is also a role for local governments across the country to reduce regulatory hurdles and engage with the industry and DNSPs to facilitate the installation of charging across the country. Local governments are uniquely positioned to address the specific needs of their communities and to implement strategies that significantly improve the accessibility and convenience of public EV charging:

1. Streamline planning approvals: Local governments should review and, where possible, streamline planning approval processes to ensure that they do not become a barrier to the deployment of public EV charging stations. This includes rationalising requirements related to lighting, advertising, and the aesthetic integration of charging infrastructure within community spaces, ensuring that these do not unnecessarily delay or complicate installation efforts.
2. Facilitate Zero-Cost Leases for CPOs: Local governments are encouraged to offer zero-cost leases for the use of government-owned parking areas to allow CPOs to establish charging stations without the burden of land costs. While local governments need not directly fund the deployment of charging infrastructure - typically a role for state and federal governments - they should avoid viewing these initiatives as opportunities for near-term revenue generation, instead prioritising the long-term benefits of increased EV adoption.¹³

Improving approval and connection times

Some EVC members report applications to install EV charging stations and applications for connection upgrades are taking too long.¹⁴ Proper resourcing of DNSP connection teams, dedicated EV infrastructure connection teams and improved processes could expedite approvals and installations. Standardising connection applications for installations like pole-mounted EVSE could also improve speed and increase confidence.

¹³ [Recommendations for Local Governments - Electric Vehicle Council](#)

¹⁴ [State of EVs 2024 - Electric Vehicle Council](#) p57

Other asks of NSW government

NSW Department of Climate Change, Energy, the Environment and Water held a consultation on proposed changes to the Energy Savings Scheme (ESS) Rule and Regulation in April 2025. The EVC proposed in its submission that EVSE be considered for inclusion in the ESS as “EVs, powered by electricity, offer a cleaner alternative, and the transition from ICE vehicles to EVs directly translates to energy savings.”¹⁵ Such an inclusion, using an existing framework, could serve as a ready-made mechanism to incentivise and increase the number of electric vehicle chargers in NSW.

Freight and heavy vehicles

The EVC anticipates alternative energy sources for freight and heavy vehicles will only be viable for routes and vehicles that cannot readily be electrified. While some transport applications may require alternative fuel sources,¹⁶ battery electric vehicles are firming as the technology that will be adopted by most road freight and heavy vehicle applications and certainly for light vehicles.¹⁷

Electric trucks are already a reality on NSW’s roads, with 18 models available in market at last count.¹⁸ Battery electric trucks with range up to 500km per charge are already available on the market, with second-generation models likely to offer even further range in coming years. This range opens up the viability of freight movements by electric vehicles on many regional routes, in NSW and beyond.¹⁹

In the immediate term, deployments of electric freight vehicles will likely be on a case-by-case basis, dependent on load, application and specific routes. However, all operations will ultimately depend on the rollout of supporting charging infrastructure on NSW’s key freight routes. The specific shape and design of such infrastructure will differ. For most current electric truck models, some form of public fast-chargers will be required, tailored to the capacity and refuelling speeds of Australia’s road freight industry (e.g. up to MCS).²⁰ For other applications, trucks with swappable batteries may prove a better matched model, consistent with emerging Australian products²¹ or those from more mature markets, such as China.²²

Currently, there is no infrastructure plan for electric freight movements within NSW, let alone a charging strategy for Australia’s major cross-border routes. This is despite the Federal Government’s clear investment focus on freight charging infrastructure²³ and NSW signing an

¹⁵ [EVC-ESS-submission.pdf](#)

¹⁶ Segments such as shipping and aviation may require alternative fuel sources to decarbonise in the first instance (e.g. biofuels, hydrogen, synthetic fuels). Even still, the EVC notes that some small aircraft¹⁶ and watercraft such as catamarans and ferries doing short routes already have EV versions available.

¹⁷ [State of EVs 2024 - Electric Vehicle Council](#) p.18,19

¹⁸ [State of EVs 2024 - Electric Vehicle Council](#) p.70

¹⁹ [eActros 600 | Mercedes-Benz Trucks](#)

²⁰ CHARIN, [Megawatt Charging System \(MCS\)](#)

²¹ [Janus Electric | Zero Emission Transport](#)

²² [Solarh2e Pty Ltd](#)

²³ ARENA, [Driving the Nation Program](#)

MoU on 'Hydrogen Highways' in 2022,²⁴ notwithstanding that battery electric trucks are by far the more advanced commercial technology.

The EVC urges NSW to establish a clear plan for the rollout of the electric charging infrastructure we know regional communities and the freight industry will need. This should include:

- Ensuring deployment of “pull-through” charging bays for larger EVs, consistent with the Minimum Operating Standards.²⁵
- Identifying NSW’s priority electric freight routes and recharging solutions, in line with the internationally recognised Global Green Road Corridors Initiative.²⁶
- Auditing regional grid connections and capacity to identify key freight locations that can support high-speed charging facilities (and/or other electric recharging infrastructure), either currently or in the near term.
- Financing a charging network similar to the successful rollout of EV Destination Charging, but at key *freight* hubs instead of tourist sites.²⁷

While specific recharging technologies for electric heavy vehicles will continue to develop, planning *where* to locate electric freight infrastructure in NSW is a no-regrets strategy to give the freight industry the confidence to go electric and to safeguard the state’s prosperity.

Transitioning workers and industry standards

The EVC supports measures to upskill mechanics, auto-electricians and all manner of workers affected by increased electrification, including the transport sector. For example, the EVC has had some input in developing a TAFE course for upskilling electricians²⁸ and would continue this kind of support where possible.

It is imperative that there are sufficiently skilled personnel available not only to support electric and alternative energy vehicle sectors but also to ensure acceptance of the new industries and workers are not left behind.

However, to date NSW has lagged other jurisdictions in providing dedicated pathways for EV-related training. As we move towards an electrified transport sector over coming decades, it will be essential to have a skilled workforce that can design, manufacture, maintain, and support EVs and their enabling infrastructure. With the highest number of vehicles sold annually in the country, the demand for skilled mechanics trained in EV technologies is especially critical in NSW.

²⁴ Hydrogen refuelling network, [NSW Climate & Energy Action](#)

²⁵ Energy & Climate Ministerial Council, [‘Minimum operating standards for government-supported public EV charging infrastructure’](#)

²⁶ CALSTART, [Global Green Road Corridors](#)

²⁷ NSW Climate & Energy Action, [EV destination charging grants](#)

²⁸ <https://thedriven.io/2023/10/05/new-ev-charging-installation-course-for-electricians/>

For a detailed outline of the EVC's policy proposals in this sphere, please refer to our submission to the NSW Review of the Motor Trades Qualifications and Certification consultation on 21 June 2024, provided to the NSW Fair Trading Policy team.

If you have any questions on this submission, please contact Michael, at office@evc.org.au. Thank you for your consideration of our submission.

Yours sincerely,

Julie Delvecchio

Chief Executive Officer

Electric Vehicle Council