Submission No 92

INFRASTRUCTURE FOR ELECTRIC AND ALTERNATIVE ENERGY SOURCE VEHICLES IN NSW

Organisation: NSW Government

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Inquiry into infrastructure for electric and alternative energy source vehicles in NSW

NSW Government submission
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Contents

1. Introduction

1.1 Roles and scope

The Department of Climate Change, Energy, the Environment and Water (DCCEEW) leads NSW Government policy and programs promoting the uptake of electric vehicles (EVs) and renewable fuels, and collaborates closely with Transport for NSW (Transport) on their related policies and programs, as well with as other agencies.

The following agencies contributed to this submission:

- DCCEEW
- Transport
- Treasury
- Department of Primary Industries and Regional Development (DPIRD)
- Department of Planning, Housing and Infrastructure (DPHI)

1.2 Structure of response

Where relevant material is introduced in an early section, it is not repeated in later sections, where it may also be relevant.

For section (a) of the inquiry terms of reference, the scope of response focusses on implementation of existing EV programs as the services and technology are already available to consumers and businesses in NSW.

For section (b), the scope of response focusses on policy announcements by NSW Government and use cases in other jurisdictions.

For sections (c) and (d), only directly relevant content is included.

For section (e), circularity and other Transport programs are discussed.

1.3 Transport sector summary

The transport sector is the fastest-growing source of emissions in Australia, accounting for around 20 per cent of NSW's greenhouse gas (GHG) emissions. The NSW Government has various policies for progressive decarbonisation of the sector:

- Transport's Net Zero and Climate Change Policy, Accelerating towards a net zero future, outlines targets within Transport and the broader transport sector, and aligns with the NSW Net Zero Plan Stage 1: 2020-2030, ensuring that NSW Government's efforts are synchronised with broader net zero commitments.

- The Future Energy Strategy outlines Transport's commitment to securing transport energy needs from sustainable sources and supports the transport sector's transition to net zero emissions by 2050. It also includes a Future Energy Action Plan which defines near-term initiatives for achieving the strategy's objectives. The benefits from the strategy include reduced greenhouse gas emissions, increased energy security, support for economic development, improved access to mobility, reduced traffic and parking congestion, cost savings for consumers, reduced air and noise pollution and increased public health and safety.

- DCCEEW's 2021 Electric Vehicle Strategy is the NSW Government's plan to increase the uptake of EVs. The strategy includes actions to make NSW the easiest place to buy and use an EV in Australia and is intended to increase EV sales to 52% by 2030-31. While DCCEEW leads the strategy, Transport has a key supporting role.
- Transport has signed a Memorandum of Understanding with National Highways, a global leader in decarbonising transport infrastructure in the UK. This partnership incorporates leading global practices to tackle challenges and achieve the ambitious environmental goals outlined by the policy.
- The Decarbonising Infrastructure Delivery Roadmap, developed with Infrastructure NSW, helps Transport engage industry partners to co-design, trial and implement best practice across NSW Government projects.

2. Funding and location of electric vehicle chargers or infrastructure for other potential energy fuel sources

Public transport using EV buses is included in this section. It does not include ferry, rail and metro public transport (covered in section (e)) or active transport infrastructure (out of scope).

2.1 EV charging infrastructure and fleet grant programs

2.1.1 Overview

An overview of NSW Government programs related to Electric Vehicle Supply Equipment (EVSE) is provided below,[1] with further detail on how programs help overcome investment barriers.

Encouraging widespread EV adoption is an important step to achieving the emissions reduction target of net zero by 2050. Modelling by the International Energy Agency shows that global EV sales will need to be 100% of new vehicle sales by 2035 to reach this target globally. This represents a steep trajectory for EV uptake.

For NSW, ensuring there is adequate charging infrastructure to service the entire population, including people who live in standalone homes, apartment buildings and homes without off-street parking, is critical in achieving the legislated emissions reduction targets for 2030, 2035 and 2050.

There is an interdependence between EV adoption and charging station investment. Drivers can be reluctant to purchase an EV unless there is ubiquitous charging infrastructure. However, investment in this infrastructure might not be privately profitable until there is a critical mass of EVs on the road, and even then, it will not be profitable in all locations. For this reason, there is a case for the government to support EV infrastructure.

EVs offer many private benefits to individuals, such as lower fuel costs, reduced maintenance and quieter driving experiences. At the same time, many of the current drawbacks of EVs, such as higher initial costs or slow charging times, are decreasing as EV and battery technology improves. This will incentivise the uptake of EVs – and investment in the underlying infrastructure – even in the absence of government action.

[1] These programs have different metrics. A charging station is a site/location/address with EVSE, it will support bays (to park one or more vehicles)/ports (to connect charger to vehicles)/plugs (connection into vehicle from charger), these terms all reflect how many vehicles can be charged at a time.

It is important that the government does not crowd out or duplicate investment in EVs that would naturally occur regardless. As the technology matures, the government's investment in EV infrastructure should continue to be targeted to areas that would otherwise not be supplied by the market in a sufficient and timely manner.

Government interventions are informed by an evidence-based framework, including robust cost benefit analysis. They consider the full breadth of levers available to government beyond direct investment, including regulatory levers to encourage the wider availability of charging infrastructure.

The NSW Government, under its NSW EV Strategy which was released in 2021, prioritises investment in infrastructure for passenger and light commercial vehicles across NSW[2]. It also includes programs to support renters, people who live in apartments and those who do not have access to home charging to ensure more drivers can take advantage of the cost savings from owning an EV. Key initiatives in the strategy include:

- **EV Fast Charging Grants Program**: supporting businesses to build, own and operate 280 fast (150 kW/175 kW) and ultra-fast charging stations (350 kW) across NSW, densifying the charging network in metropolitan areas and connecting metropolitan areas to regional centres and towns.
- **EV Destination Charging Grants Program**: installing destination chargers in regional areas (7-22kW AC chargers in Rounds 1/2, and 24-100kW DC chargers in Round 3) to support intrastate travel and complement the EV Fast Charging program.
- **EV charging in Transport-owned assets**: deploying chargers in or near commuter car parks (7-25kW, in partnership with Jolt) and sites owned by Transport (mostly 50-75kW DC chargers, in partnership with NRMA).
- **EV Kerbside Charging Grants Program**: providing access to residents who do not have off-street parking by supporting 7kW AC (up to 75kW DC) chargers on kerbsides and in council car parks.
- **EV Ready Buildings Program**: supporting strata bodies to conduct feasibility assessments and access co-funding to undertake electrical infrastructure retrofits to make their buildings EV ready and enable the installation of EV chargers in shared car spaces.
- **Fleets Program**: supporting private industry, NGOs and local council fleets in NSW through financial incentives to purchase passenger and light commercial EVs and base charging infrastructure, as well as capacity building to help NSW organisations accelerate their shift to EVs and reduce emissions.

2.1.2 Overall status of programs

Program headline numbers are presented as both committed (which includes contracts in progress and completed) and delivered (or paid) as at 27 March 2025:

- **Committed:** 187 fast and ultra-fast charging stations, 497 destination charging sites, 391 metropolitan kerbside sites, 82 EV ready buildings and over 4,300 EVs and 1,241 smart chargers for business, NGO and council fleets were supported.

[2] Programs are focussed on benefits to NSW residents, they also support interstate travel and tourism.

- **Delivered:** 24 fast and ultra-fast charging stations, 421 destination charging sites, 135 kerbside charging sites, three apartment buildings have been upgraded to be EV ready and 2,739 vehicles and 635 chargers have been incorporated into NSW fleets.

2.1.3 EV fast-charging

Co-funding supports the delivery of fast and ultra-fast EV charging stations across the state.[3] The program supports private industry to build, own and operate fast and ultra-fast charging stations across NSW, supporting city charging and connecting metropolitan areas to regional centres and towns.

Across the first two rounds, funding was awarded for private industry to build a total of 187 charging stations with a combined 1,051 charging bays. In October 2024, Round 3 closed; grantees have not been announced yet. As of 27 March 2025, 24 new fast and ultra-fast charging sites funded through the program are operational with a combined 167 ports.

2.1.4 EV destination charging

Grants help tourist locations to install destination chargers to complement the ultra-fast charging program in regional areas. Across the first two funding rounds, 1,325 ports for AC chargers have been approved across 497 regional sites, with 1,115 charge ports operational at 421 sites as of 27 March 2025.

Round 3 is now co-funding eligible charge point operators to own and operate lower powered DC chargers (24-100 kW) in regional areas. The round closed on 28 March 2025 and applications are now in assessment.

On 16 February 2025, the NSW Government announced the first 9 EV Friendly Road Trips[4] which have been developed to promote EV travel across NSW – delivering on the government's commitment to build tourist drives under its EV Strategy.

2.1.5 EV charging in transport-owned assets

There are two key programs outlined below, with further details in the Appendix. All chargers in both programs have two 'ports' (1x CCS2 and 1x CHAdeMO), these ports are typically only available in series (one at a time) rather than in parallel (used in concurrence).

- The **Regional Fast Charger program** has installed fast chargers on major regional corridors with co-investments of $3 million from each of Transport and the NRMA. Locations were selected to target key regional routes and destinations where charging points are less likely to be provided on a fully commercial basis. The program has helped regional residents, businesses, and visitors to share in the cost savings and other benefits of EVs. Since 2020, the Regional Fast Charger Program has delivered over 38 EV chargers ranging from 50kW-175kW across 25 different regional locations in NSW including Armidale, Scone, Tenterfield, Moree, Walcha, Gilgandra and Braidwood more recently.
- The **Commuter Car Park EV Charging program** (considered as first stream of program) is equipping commuter car parks with 7-22kW EV charging for long stay parking. A total of 48 chargers are available across four train station commuter carparks. New commuter car

[3] Fast Charging Definition as per Frequently Asked Questions in funding guidelines: "Fast charging" begins at 50kW, while "ultra-fast" refers to a 350kW charger. Each NSW Government funded station will have a minimum of 2 charging bays with 175kW chargers and 2 with 350kW chargers."
[4] www.visitnsw.com/evroadtrips

parks are also being built to be EV-ready, by installing electrical conduits for easy future installation of EV chargers.

Transport has also designed and built two multistorey car parks at Leppington and Edmondson Park (South) to achieve a carbon positive outcome. The roof level of both car parks is covered with steel roofing to support solar panels, which have been sized to cover the entire roof. A combined 1370 kWp (kilowatt peak) of rooftop PV panels were installed across both car parks and are projected to produce above the annual operational energy requirements of the two car parks.

The sizing of the rooftop solar photovoltaic (PV) system was informed by a detailed Whole of Life Cost analysis, which included an analysis on PV sizing options, EV charging technology and the integration of battery energy storage. Following the outcome of the study, it was decided the PV system was to be maximised for both car parks, providing the most benefit from the available roof space. The rooftop solar structures provide refuge from direct sunlight and extreme temperatures, delivering additional shade for commuters and parked cars.[5]

In partnership with Jolt, Transport has co-invested in 5 charging points in 5 commuter car parks (considered as second stream of program). The Jolt chargers incorporate advertising screens to support a sustainable business model. Transport has committed $250,000 to this program in addition to the in-kind contribution to support site identification and approval processes.

2.1.6 EV kerbside charging

It is estimated that around 30% of drivers in NSW do not have access to private off-street parking to charge an EV. The Government is co-funding kerbside chargers in eligible LGAs to provide residents with access to on-street charging solutions. In the first funding round, 671 ports for AC chargers have been approved across 391 metro sites, with 183 charge ports operational at 135 sites as at 27 March 2025.

Negotiations have commenced with a number of organisations to fund additional chargers through round 2 of the program.

2.1.7 EV ready buildings

As the first of its kind in Australia, the NSW Government is co-funding upgrades to building electrical infrastructure in at least 100 medium and large apartment buildings with more than 10 units. Funding has been provided to support 286 eligible strata bodies to complete an initial feasibility assessment as part of Stage 1 of the program.

On 15 August 2024, Stage 2 of the program opened, allowing the 286 eligible strata buildings to apply for co-funding to install shared EV chargers and electrical infrastructure upgrades.

As of 27 March 2025, 82 Stage 2 applications have been approved, with 20 under assessment. Stage 2 is open until 30 June 2026 or until the funding is allocated.

2.1.8 Fleets incentive

The NSW Government is investing to support private industry, NGO and local council fleets in NSW through financial incentives to purchase passenger and light commercial EVs and base

[5] https://www.transport.nsw.gov.au/system/files/media/documents/2024/Carbon%20positive%20commuter%20car%20parks%20%282021-22%29.pdf

charging infrastructure, as well as capacity building to help NSW organisations accelerate their shift to EVs and reduce emissions.

Fleet buyers are important participants in the NSW vehicle market since they are responsible for a large portion of new vehicle sales. Generally, they turn over vehicles every three to four years, increasing the supply of vehicles in the second-hand market. As of 27 March 2025, 82 organisations have been supported to transition their fleet to EVs through four competitive funding rounds. Co-funding has been allocated to support the uptake of over 4,000 vehicles and the installation of 990 smart 7kW-22kW AC chargers. [6]

Following stakeholder feedback, the government improved the application process in 2024, including targeting smaller organisations and EV pilots. As of 27 March 2025, this has seen funding allocated to support the procurement of an additional 294 vehicles and 251 smart chargers.

Since July 2024, over 1,000 participants have attended capacity building initiatives organised or supported by the NSW Government to support fleet electrification.

2.2 Other EV support

In addition to the public and private charging infrastructure outlined above, the NSW Government facilitates EV uptake through programs like data visualisation and installation guidelines.

2.2.1 Funding guidelines

Funding guidelines are updated for each grant round and provide rules and guidance to applicants seeking grants. By submitting a bid, applicants agree to conditions outlined in the grant guidelines, including knowledge sharing, reporting, program evaluation and funding requirements.

2.2.2 Mapping tools to inform charger installation location and funding levels

These resources help identify areas that most need charging infrastructure.

- NSW Electric Vehicle Fast Charging Infrastructure Master Plan [7] is an open-access map to develop EV fast charging infrastructure locations in NSW through the identification of optimal zones. It provides a visual representation of EV fast charging infrastructure to help policy makers, charging infrastructure providers, energy utilities and tourism operators gain a mutual understanding and plan the best possible outcomes for EV drivers, to drive greater adoption in the long-term.
- NSW EV kerbside charging grants map [8] is also provided to applicants to ensure equitable distribution across areas of highest need for kerbside chargers across metropolitan NSW. Priority zone types have been identified based on population density, housing type, housing tenure and vehicle ownership. Different zones attract different NSW Government co-funding amounts. All chargers must be installed in these zones. The list of eligible zones is reviewed and modified for each funding round to ensure program objectives continue to be met.

[6] They are smart due to network connection capability, which allows for remote monitoring and control.
[7] NSW Electric Vehicle Fast Charging Infrastructure Master Plan: Evenergi Map
[8] NSW EV kerbside charging grants map: NSW EV Kerbside Charging Grants (Round 2)

- NSW EV destination charging grants map [9] is provided to prospective grants applicants to target remaining EV charger funding along dedicated NSW EV road trip routes.

2.2.3 Consumer information

The NSW Government supports improved information for consumers, so that they have visibility of EV charger location and availability.

- DCCEEW has co-funded the Electric Vehicle Council's Charge@Large app [10] which provides information on charger location and availability. In future, the app will also provide data on charger utilisation. The Electric Vehicle Council runs the onboarding process for the app.
- The NSW Government supports a hub of EV-related consumer information[11] including a map of all the public EV chargers available in NSW. The data is also available from Open Data[12].

2.2.4 Standards and regulation

The NSW Government also directly supports deployment of charging infrastructure and increasing the uptake of EVs by:

- removing constraints to an efficient rollout of kerbside chargers installed on network poles by arranging dispensation from the requirements of the NSW Service and Installation Rules
- modernising the NSW Service and Installation Rules to allow for EV chargers and other emerging technologies not previously addressed in the document
- funding and assisting development of technical specifications for residential and commercial EV charging,[13] which have now been published through Standards Australia
- developing standards to support the successful delivery of EV Charging infrastructure[14] and supporting the development of industry standards by the Commonwealth Government on minimum operating standards for government-supported public EV charging infrastructure
- providing for different types of EV charger developments in the State Environmental Planning Policy (Transport and Infrastructure) 2021
- pursuing 'Right to charge' reforms to strata laws, as set out in the NSW Consumer Energy Strategy (Action 32).

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[9] NSW EV destination charging grants map: Destination Charging Round 3 | EVenergi-OECC Map

[10] https://electricvehiclecouncil.com.au/media-releases/real-time-ev-app-set-to-improve-charging-experience-coverage-and-reliability/

[11] https://www.transport.nsw.gov.au/projects/electric-vehicles

[12] https://opendata.transport.nsw.gov.au/data/dataset/ev-charging-locations

[13] Standards are SA TS 5396:2024 https://store.standards.org.au/product/sa-ts-5396-2024 and SA TS 5397:2024 https://store.standards.org.au/product/sa-ts-5397-2024, see: New guides available for safe and efficient EV charger installation - Standards Australia and https://www.engineersaustralia.org.au/news-and-media/2025/02/developing-standards-electric-vehicles

[14] TS 04955.6 Services, Systems and Equipment – Part 6: Electric Vehicle Charging https://standards.transport.nsw.gov.au/search-standard-specific/?id=AST%20-%200004550:2022 and TS 00106 Electric Vehicle Charging Stations - Signposting and Pavement Marking https://standards.transport.nsw.gov.au/search-standard-specific/?id=AST%20-%200005808:2023

2.3 NSW Government EV fleet funding

The NSW Government will electrify its passenger vehicle fleet of about 12,000 cars by ensuring that 100% of new purchases/leases are fully electric by 2030. This fleet target will further stimulate the second-hand vehicle market with EVs being sold after three to five years.

The Net Zero Government Operations Policy has recently complemented these targets with an aspirational target of 30% of new government light commercial vehicles procured to be EVs by 2030 (Measure 19). There are about 7,000 light commercial vehicles in the NSW Government fleet.

Departments have been prioritising electrical upgrades and charging infrastructure to address future vehicle needs. For example, fleet optimisation targets are in place at Transport with policy, procedures and standards covering procurement, use and monitoring of motor vehicle assets and driver behaviour.

Commercial arrangements, including a charging management platform, whole of government contract and a prequalification scheme of charging infrastructure providers, have been put in place to support the charging infrastructure roll out.

An 'EV first' policy has been introduced to promote uptake of EVs.[15] The government has also invested in change management activities to allow a smoother transition. Activities included EV drive days, EV trials, development of resources for drivers, and capacity building sessions for fleet managers.

2.4 Transport's bus electrification

The Zero Emission Buses (ZEB) program is a multibillion-dollar program to transition NSW's 8,000 plus diesel and Compressed Natural Gas public transport buses to zero emissions technology. This transition delivers on the NSW Government's commitment to achieve net zero emissions by 2050 and provide more comfortable journeys and liveable places for customers and communities.

Under the ZEB Transition Plan, the transition will be complete in Greater Sydney by 2035, in outer metropolitan regions by 2040 and in regional NSW by 2047. The roll out plan has been developed in close consultation with industry and experts to ensure the staged transition is smooth, sustainable and supports the local manufacturing industry.

The first stage of the transition commenced in 2023 in Greater Sydney and will see 11 existing bus depots converted to battery electric technology and a new battery electric bus depot built in Macquarie Park. Furthermore, more than 1,200 new electric buses will be procured along with renewable energy procurement with the program completed in 2028.

This includes battery electric buses to test battery electric bus technology in varied terrain and conditions to inform planning for the future transition in rural and regional NSW.

Trials with 12 ZEBs are in progress across regional NSW focusing on school buses and local services using Category 2 (24 passenger) and Category 4 (57 passenger) ZEBs. Main deployment areas for the trials are the Tweed, Armidale, Narrabri, Queanbeyan, Deniliquin and Moama.

[15] Measure 18 of the new Net Zero Government Operations Policy

Planning for Stage 2 of the ZEB transition in Greater Sydney has commenced with a further 1,300 buses and 11 depots planned for transition. This includes power grid connection upgrades to depots and renewable energy procurement.

The planning and preparation of a business case is expected to be completed by mid-2026.

3. The viability of alternative energy sources for freight, heavy vehicles and other licenced vehicles in regional communities

3.1 Decarbonising freight

3.1.1 Overview

Decarbonising freight is critical to achieving net zero emissions given the growing demand for freight in urban and regional NSW. Improved connectivity and last-mile access for of low and zero emissions vehicles in urban and regional centres and neighbourhoods will support regional and remote communities and build a sustainable transport system.

Road freight and rollingstock regularly travel long distances to and within remote and regional areas. Reliable charging/refuelling infrastructure in these areas will enable operators to transition to zero emission technologies while maintaining supply chain efficiency across the country. Investment in charging/refuelling stations for road and rail in remote regions can also provide local job opportunities and ensure communities benefit from cleaner, more sustainable freight transport.

The NSW Government recognises the challenges for operators to transition to zero emission vehicles in terms of cost, technological limitations and market availability. Heavy vehicles have an average age of 15 years; this is much longer for rollingstock. Low carbon liquid fuels can offer decarbonisation opportunities for existing road and rail fleets.

An additional immediate opportunity exists in increasing access for modern high-productivity vehicles, [16] which move more freight with fewer trips providing emission reductions and better safety and road congestion outcomes. High productivity vehicles provide benefits especially for regional communities given the vast distances to urban centres.

Transport and DCCEEW support pathways to net zero that are evidence-based, effective and efficient. Evidence suggests the most effective short-term investment is the battery electric urban short-haul segment. The technology is more mature in this segment and trucks are currently more widely available for purchase in the market. Urban freight routes suit electrification due to the shorter distances travelled aided by their ability to be charged intermittently at depots.

Range anxiety and lack of charging facilities have been identified by stakeholders as a key barrier to uptake. Dedicated, fit-for-purpose charging infrastructure for freight is crucial for increasing confidence in this new market but requires careful planning and investments.

Strategically located charging infrastructure that aligns with intermodal freight hubs, ports, airports, and rail terminals is essential for a seamless transition to zero emission heavy vehicles and locomotives. Consideration should be given to charging solutions for rail, including battery-

[16] Definition discussed in: NSW's future transport network needs a high productivity vehicle network | Australian Trucking Association

electric or hybrid locomotives. Further research and analysis needs to be undertaken to understand opportunities for transitioning to zero emission locomotives particularly regarding barriers to adoption and appropriate recharging/refuelling options and locations.

This integrated approach supports a reliable, low-emission supply chain, enabling fleet transition while maintaining efficiency and competitiveness. Through consultation on the Towards Net Zero Emissions Freight Policy, freight stakeholders strongly suggested there is a role for the government in supporting the freight industry to reduce emissions.

Interjurisdictional agreement and cooperation is essential to support the charging/refuelling needs of heavy vehicles, especially for NSW given it is a 'through' state. Transport is currently working on research and technical analysis projects with other jurisdictions through the iMove Cooperative Research Centre to better understand the charging (and hydrogen refuelling) needs for long haul road freight. This project is led by the Commonwealth, and collaborates with Victoria and Queensland, in recognition of the need for national harmonisation of policies and investment into long haul road freight routes that crosses borders.

Where freight and heavy vehicles cannot be supported by existing battery electric technologies, viable low-emission alternatives may be considered to reduce emissions. This assumes that the duty cycle is required to remain the same, i.e. no change in use or behaviour. This includes hybridisation, combining battery electric sources with alternative fuels (energy sources).

3.1.2 Freight Policy Reform Program

The NSW Government commenced the Freight Policy Reform Program, which aims to ensure freight is best managed to support our current and future communities.

An independent advisory panel (Panel) is guiding the Reform Program, which will deliver a comprehensive strategic reform agenda and action plan to optimise freight transport in NSW. The Panel's initial Consultation Paper sets out the challenges and opportunities for decarbonisation, while the Interim Directions Paper sets out short, medium and long-term actions that are necessary to support the freight industry (especially road freight), to decarbonise. The reform program speaks to the importance of expanding renewable energy generation, developing other industries that will support renewable energy production, as well as supporting the use of emerging technology to support decarbonisation.

Actions within the Interim Directions paper include investigating what incentives have the potential to accelerate private investment in electric recharging facilities, as well as overseeing a fit for purpose public recharging and refuelling infrastructure, by government and industry. The Panel has finalised its report and sent it to the Minister of Transport and it is now under consideration of government.

3.2 Licensing and design of freight, heavy and other vehicles

Transport, as the responsible NSW agency, has advocated for amendments to Australian Design Rules and other vehicle standard requirements in the Heavy Vehicle National Law. This work involves balancing objectives, enabling newer, cleaner heavy vehicles, while considering the impact of higher masses and axle weights associated with heavy zero and low emissions vehicles, including network access.

3.3 Alternative energy sources

The scope of alternative energy sources discussed below is limited to those that are most viable for potentially replacing or partially replacing diesel produced from fossil fuels (fossil diesel) in transport – low carbon liquid fuels such as renewable diesel, biodiesel and ethanol, and green hydrogen. Use cases in other jurisdictions have been included for the Committee to consider their viability in NSW and Australia.

3.3.1 Alternative diesel options

While battery technology improves, it Is anticipated that some freight and heavy transport use cases will rely on low carbon fuels to decarbonise, such as renewable diesel, biodiesel and green hydrogen.[17] This is considered to be more likely in the case of regional freight and transport that is not on major highways. These fleet assets often have long lifespans and are costly to replace, making it more economical for some businesses to reduce emissions in the nearer term by switching to a drop-in low carbon liquid fuel like renewable diesel, or biodiesel blended with fossil diesel.

Coal mining is the largest contributor of non-road diesel combustion emissions in NSW. Renewable diesel has the potential to displace fossil diesel to power various engines on mining sites, including haul trucks, bulldozers, draglines, excavators and loaders. In early 2025, Rio Tinto trialled a 20% blend of renewable diesel in its Pilbara (WA) iron ore operations to understand how renewable diesel use can be scaled up in the immediate future, as a complementary solution to longer-term fleet electrification.

The NSW Government is driving the uptake of renewable fuels through targeted policy and investment. In August 2024, it released the Opportunities for a Renewable Fuel Industry in NSW discussion paper. The feedback received from industry is being used to directly inform the development of a renewable fuel strategy for NSW.

This strategy will provide a roadmap on how the NSW Government intends to seed development of a thriving and sustainable renewable fuel industry. It will continue support for green hydrogen established under the existing NSW Hydrogen Strategy, recognising the critical role of hydrogen and hydrogen derivative fuels in the longer term.

3.3.2 Green hydrogen

In 2021, the NSW Hydrogen Strategy announced up to $3 billion of incentives for green hydrogen, including:

- **Renewable Fuel Scheme** provides additional revenue to green hydrogen producers. Under existing legislation, eligible producers can sell certificates to meet an annual production target that is set until 2044. This scheme is being considered for expansion to other fuels, including renewable diesel, as part of the development of the NSW renewable fuel strategy.

[17] Renewable diesel is produced from renewable organic material and has similar chemical properties to diesel produced from fossil fuels. Biodieselis chemically different from fossil diesel, and can be supplied at up to a 20% blend with fossil diesel when approval is obtained: Current approvals granted under Section 13 of the Fuel Quality Standards Act 2000 - DCCEEW These approvals are time-limited and require renewal. Renewable diesel has potential to deliver larger reductions in greenhouse gas emissions than biodiesel as it can be used with a wider range of unmodified diesel engines at higher blend ratios. Green hydrogen is produced from electrolysis of water using renewable energy and doesn't release carbon emissions when combusted.

- **Electricity concessions** reduce electricity costs so that green hydrogen can be produced more competitively. These include a 90% discount on electricity network charges and up to 100% discounts on government levies.
- **Hydrogen hubs** in the Hunter, Illawarra, and Moree are being developed to facilitate the production infrastructure and use of hydrogen in regional areas. These hubs will create new jobs and stimulate economic growth in regional communities, helping to diversify regional economies and reduce reliance on traditional industries. By providing a local supply of green hydrogen, these hubs will improve energy security and resilience in regional areas, particularly in hard-to-abate sectors like transport and manufacturing.

3.3.3 Hydrogen and heavy transport

Use of hydrogen offers an additional decarbonisation pathway in hard-to-abate sectors, including the heavy transport sector. In certain applications, the use of hydrogen fuel cell vehicles offers distinct advantages over other technologies.

Advantages of **hydrogen-powered vehicles** include:

- Refuelling: Hydrogen-powered vehicles have short refuelling times and the ability to refuel in rapid succession, both of which are important in freight and line haul transport where minimising time-cost is key for businesses.
- Range: Hydrogen-powered vehicles can travel greater distances than their battery counterparts, which means they need fewer stops on long routes, allowing greater spacing between hydrogen refuelling stations, which may offer advantages over battery-electric vehicles in regional and long-distance operations.[18]
- Tank capacity: Increasing hydrogen on-board storage to enable greater traveling range has relatively minor impact on total vehicle weight and results in a lower payload penalty compared to increasing the size of batteries, which are larger and heavier1818.
- Dual use infrastructure: Hydrogen can also support regional rail, both freight and passenger, where electrification is not feasible.

A **hydrogen refuelling infrastructure** along NSW's three major interstate highways is possible as the technology matures:

- There is a memorandum of understanding with the Victorian and Queensland governments for an east coast hydrogen refuelling network.
- Following NSW's first hydrogen bus trial on the Central Coast in mid-2023, a hydrogen bus was deployed on Wollongong's popular free 'Gong Shuttle' loop.
- Further infrastructure rollout of charging stations and hydrogen refuelling stations in regional areas would also be required to ensure accessibility and convenience for drivers, supporting technology adoption and reducing range anxiety.

[18] https://www.catf.us/2023/03/why-the-future-of-long-haul-heavy-trucking-probably-includes-a-lot-of-hydrogen/

- Proximity to hydrogen producers needs to be considered, either being within an acceptable distance from existing hydrogen production or through dedicated on-site hydrogen production, such as at the Hiringa Refuelling New Zealand project.[19]
- Support for local industries and workers transitioning to new technologies is also necessary to mitigate economic impacts and ensure a smooth transition.
- A NSW Government grant of a $500,000[20] supported the development of Australia's first hydrogen refuelling station for heavy vehicles at Port Kembla. This facility is operated by Coregas, an Australian owned industrial gas company.

3.3.4 Primary industries need for renewable fuels in short-to-medium term

The heavy vehicles, boats, planes and machinery assets used in agriculture, fisheries and forestry have a long life-span and are difficult to electrify, as are vehicles used for freight and other heavy vehicles. The electrification of regional primary industries is unlikely to be technically feasible or economical in the short to medium term. During this period, many of the needs of primary industries are likely to be better met by renewable fuel sources. Supporting infrastructure is needed to facilitate the production and distribution of renewable fuels.

DPIRD has undertaken several bodies of work, detailed below, regarding bioenergy (for vehicles and other uses in primary industries):

- Feedstock: NSW DPIRD has partnered with CSIRO to develop a publicly available, interactive spatial tool[21] that enables users to determine the potential for using biomass in NSW for a range of applications, including liquid biofuels. The tool draws upon biomass data derived for NSW, originally under the Australian Biomass for Bioenergy Assessment project. In addition to a variety of existing biomass sources, the tool allows users to identify potentially suitable land to consider planting woody biomass crops.
- Research: The NSW Government is a key partner in the NSW Decarbonisation Innovation Hub[22] which aims to:
    - accelerate and attract investment into the research, development and commercialisation of decarbonisation technologies and services in NSW
    - foster collaboration, partnerships and projects between industry, researchers and government that drive decarbonisation in NSW
    - support the growth of skills, knowledge and workforce in decarbonisation technologies and services in NSW.
- Through the NSW Decarbonisation Innovation Hub, NSW DPIRD is a partner in research projects, including:
    - University of Technology Sydney project to evaluate biomass from less productive land: The research outcomes of this project[23] will support development of an

[19] https://www.hiringaenergy.com/hydrogen-refuelling-network
[20] https://www.investregional.nsw.gov.au/news/australias-first-hydrogen-refuelling-station-heavy-transport-vehicles-opens-regional-nsw
[21] BioSMART
[22] Co-hosted by University of NSW and University of Newcastle: NSW Decarbonisation Innovation Hub
[23] Evaluating carbon abatement opportunities for biomass from marginal, less-productive lands in NSW - NSW Decarbonisation Innovation Hub

emerging industry in NSW to produce sustainable transport fuels for domestic and export markets and explore options for rural communities for their climate change mitigation strategies.

- Land and Primary Industries Emissions Reduction Roadmap: This project is identifying viable emissions reduction pathways for Primary Industries sector and involves quantifying total abatement potential, identifying key data and knowledge gaps and analysing economic, social, cultural and institutional barriers. It includes a section on renewable energy options, including for vehicle use in primary industries. The report will be made publicly available.

- University of Sydney project to identify pathways to a future net-zero energy system for Australia by building an Australia-specific land-use module (GLOBIOM) to represent the local competition between different land-use activities, integrate detailed geographic information system data on biophysical constraints and technological costs as well as greenhouse gas emission accounts for the agricultural, forestry and bioenergy sector.

4. Use of existing infrastructure and measures to ensure a competitive market, including 'ring fencing' policies

The use of existing infrastructure can play a critical role in supporting electric and alternative energy source vehicles with accessible and affordable options to recharge or refuel.

This response focusses on electricity infrastructure, impacts on other infrastructure are considered marginal.[24] Planning issues are also included here, as they are considered necessary to ensure a competitive market.

4.1 NSW Government participation in EV supply equipment (EVSE) rollout

In addition to the programs outlined in section (a), the NSW Government is a participant in the delivery of EV charging infrastructure through the wholly-owned Essential Energy, and minority shareholdings in Ausgrid and Endeavour Energy, held through the Electricity Retained Interest Corporations (ERICs).

The Statement of Expectations for Essential Energy includes a request from the Shareholding Ministers for Essential Energy to “Work with industry to develop electric vehicle charging infrastructure (“EVCI”) and facilitate the uptake of EVs across regional NSW including the efficient transition of Essential Energy’s own fleet”, and the Statements of Business Intent for the ERICs include EVCI growth projects for both businesses.

4.2 Consumer Energy Strategy and role of Distribution Network Service Providers

In the NSW Government’s Consumer Energy Strategy (September 2024), DCCEEW has committed to:

[24] There are marginal impacts on parking from kerbside charging: DCCEEW has discussed relevant issues with Councils that have received grant funding, as they are the responsible organisations.

- investigate incentives and other support for EV owners to install and use smart or bidirectional chargers (Action 10)
- investigate opportunities to facilitate the delivery of kerbside EV charging infrastructure by Distribution Network Service Providers (DNSPs) where appropriate (Action 31)
- introduce a right to install EV chargers in the *Strata Schemes Management Act 2015* so that owners' corporations cannot unreasonably refuse installation of EV chargers (Action 32, also discussed in section (a)).

Action 31 is particularly important for the terms of reference of this inquiry as it reflects the proposal made by the three NSW DNSPs to deploy kerbside EV chargers mounted on electricity poles across NSW, in alignment with Energy Networks Australia's *The Time is Now* report (August 2024). The report advocates for a policy mandate for a DNSP-led rollout of kerbside EV chargers under a classification of such infrastructure as a 'distribution service' in the regulatory framework. The DNSPs propose a competitive 'open access' model for charge point operators and other mobility service providers to sell electricity from the DNSP-owned chargers mounted on poles to EV drivers.

To date, DNSPs are not legally allowed to own EV chargers. Ring-fencing provisions exist within the National Electricity Law, National Electricity Rules and NSW legislation like the *Energy Supply Act 1995*. They aim to separate regulated and competitive business activities of DNSPs and other regulated entities in the National Electricity Market. Ring-fencing provisions prevent DNSPs from engaging in anti-competitive activities, such as favouring their own competitive activities to the disadvantage of other competitors or using revenue earned from regulated services to cross-subsidise their contestable services.

Installing and owning EV chargers is a contestable activity that could be reasonably undertaken by other entities besides DNSPs and is prohibited under the current framework. Subsidiary companies of DNSPs can deploy EV chargers, like the Ausgrid subsidiary Plus ES, but cannot be funded by revenue from Ausgrid's regulated services.

DCCEEW consulted on the DNSPs' proposal with key stakeholders who overwhelmingly asked for further policy details and a full public consultation. DCCEEW is currently undertaking further analysis on this topic.

4.3 Planning approvals for EV supply equipment (EVSE)

DPHI encourages and supports the rollout of EVSE by removing planning approval requirements where appropriate. The State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP) sets out the planning approval pathways for EVSE. DPHI recently amended these provisions in response to feedback from industry and councils and will continue to monitor and review implementation and the policy settings to ensure they are appropriate.

Requirements under the *Local Government Act 1993* and the *Roads Act 1990* continue to apply to units installed on public land or roads. The installation of EVSE on power/light poles or street furniture[25] is exempt development, as are units installed within car parks and other premises such as bus depots, service stations, highway service centres and public administration buildings.

[25] Street furniture is a broad term in planning contexts, including bus shelters, bollards, bike racks, etc.

Freestanding units installed on land owned by a public authority, such as a council, can be installed without development consent.

A development with consent pathway for privately owned and used EVSE located on public land (for example, on the footpath outside a resident's home) was introduced to provide a legal mechanism for this situation, whilst retaining the role of the council as the approver.

Advertising signage on EV chargers is permissible in locations other than residential zones, in recognition that this type of revenue supports the funding of the installation and operation of the EVSE.

Policy on local and state infrastructure contributions paid by new development does not currently refer to EVSE or infrastructure for other potential energy fuel source vehicles. Car parking is not considered an essential infrastructure item under the NSW Government's 'essential works list' used in the preparation of higher rate section 7.11 contributions plans. It is considered likely that a similar position would apply to this type of vehicle charging infrastructure.

5. Measures to ensure the transition of workers from affected industries and industry standards

The below comments focus on automotive mechanics and production of alternative fuels.

Many vehicle maintenance activities remain the same regardless of the power train type. This includes, tyres, wheel assemblies, drive systems, general electrical systems outside of battery electric power train, panel beating etc. For these tasks, servicing technicians and trades may need basic training on the vehicle power system and associated safety measures.

5.1 EV licensing to support worker transition

NSW requires that anyone who works on motor vehicles, including motor dealers, mechanics and automotive electricians, is licenced under the *Motor Dealers and Repairers Act 2013*. Currently the Act requires motor mechanics to hold either a Certificate III in Light Vehicle Mechanical Technology or a Certificate III in Heavy Commercial Vehicle Mechanical Technology. NSW Fair Trading released a consultation paper in May 2024 on proposed changes to the *Motor Dealers and Repairers Regulation 2014* to introduce new qualifications for electric vehicle motor mechanics. Following extensive consultation, this new licencing will be introduced in 2025, with both a new apprenticeship and bridging pathway for existing mechanics. This will formally recognise Certificate III in Automotive Electric Vehicle Technology as a qualification in NSW.

Any licenced electrician is permitted to install EVSE, however many electricians may not be comfortable to do so because they are unfamiliar with the equipment. In March 2024, TAFE NSW launched a micro skills course for electricians on EV charging. The course provides licenced electricians with information about how EV chargers work, how to safely and correctly install charging stations and how to conduct maintenance. TAFE has also been running micro skills courses on electric buses to train drivers and mechanics on the operation and maintenance of electric buses since 2022.

5.2 Alternative fuels transition

Low carbon liquid fuels when produced from a single consistent and uniform feedstock are straightforward. Multiple feedstocks may require more sophisticated production systems. Australia has good technical capabilities in industrial processes for biofuel and e-fuel production. Low carbon liquid fuels can leverage existing hydrocarbon skills.

On the other hand, hydrogen (both fuel cell and combustion) require upskilling, training and higher levels of proficiency with some differing competencies and skill sets. These are similar capability transition challenges to those faced by battery electric technologies.

5.3 Standards

Section (a) includes NSW Government support for EV standards, and (b) includes Australian Design Rules for heavy vehicles.

6. Other related matters

6.1 Circular economy

DCCEEW collaborates with the Environmental Protection Agency on circular economy issues. The end-of-life journey for EVSE is expected to be considered by both agencies in the future.

6.2 Sustainable Infrastructure Program[26]

The Sustainable Infrastructure Program is a 4-year program created to streamline and drive decarbonisation and circularity on transport infrastructure projects.

It has a strong focus on the earliest stages of the project lifecycle to tackle carbon long before construction delivery and is integrated with the broader 2026 Decarbonising Infrastructure Delivery Roadmap. [27]

Aligning with Transport's Net Zero and Climate Change Policy, the program is a pathway for Transport and industry to collectively deliver on infrastructure-related net zero targets and transition to a circular asset model.

The objective of the program is to streamline and simplify decarbonisation and circular economy for government project teams and industry partners through:

- embracing digitisation to update systems and processes to capture carbon reduction measures
- clear and consistent approach to carbon management to deliver carbon reduction targets
- Informing decision making by linking circular economy outcomes and decarbonisation.

Importantly the program is closely aligned to Transport's ongoing partnership with Infrastructure NSW and Infrastructure Australia, and with groups such as the Construction Leadership Group and the Infrastructure and Transport Senior Officials Committee to make sure these groups are aligned on how to achieve net zero and decarbonisation across the country.

[26] https://industry.transport.nsw.gov.au/tfnsw/tiip/sustainable-infrastructure-program?cache=refresh#:~:text=The%20Sustainable%20Infrastructure%20Program%20is,circularity%20on%20transport%20infrastructure%20projects.

[27] Decarbonising Infrastructure

6.3 Other infrastructure for electric and alternative source of energy vehicles

6.3.1 Sydney Trains' renewable energy usage

New South Wales is the first Australian state to fully offset the energy consumption of its electric trains on passenger rail networks with renewable energy.

Large renewable power generators create certificates for every megawatt hour of renewable electricity they produce. Transport purchases these renewable energy certificates from the power generators or suppliers, and then surrenders these certificates to verify that its electricity consumption from the national grid is matched by an equivalent amount of renewable generation.

The use of renewable energy certificates is the most transparent way to ensure the supply of electricity that powers trains comes from 100% renewable sources. This certificate system also helps grow the local renewable energy industry, with revenue generated from the sale of certificates encouraging further investment in renewable energy generation.

In 2023, Sydney Trains and NSW TrainLink used a combined 851,513 MWh of renewable electricity to operate trains and rail infrastructure, stations, works sites, offices, and other buildings operating across the networks. That represents around 83 per cent of Transport for NSW's total electricity consumption, and around 1.3% of the electricity used by the whole state of NSW in one year. This amounted to an emissions reduction of around 579,029 tonnes (CO2-e) – equivalent to taking approximately 268,000 cars off the road.

6.3.2 A greener regional rail fleet with bi-mode technology[28]

The new Regional Rail fleet will operate with an Australian first - bi-mode technology - providing a more environmentally-friendly rail service.

The NSW electrified rail network extends to Broadmeadow in the north, Lithgow in the west, Kiama in the south and Macarthur in the south-west. Bi-mode technology enables the train to run using either diesel engines or electric power from the overhead wire when operating on the electrified train network. Bi-mode technology will significantly reduce carbon emissions and diesel particulates, compared to the current regional fleet.

6.3.3 Sydney Metro runs on 100% renewable electricity[29]

For Sydney Metro "Sustainability" means planning, building and operating a metro system for current and future generations that optimises environmental, social and economic outcomes. This means:

- developing effective and appropriate responses to the key challenges such as climate resilience, energy security, land use, liveability, employment, diversity and inclusion
- being environmentally responsible by mitigating or reducing pollution and emissions, demonstrating stewardship towards the natural environment and reducing the ecological

[28] https://www.transport.nsw.gov.au/projects/current-projects/regional-rail and https://www.transport.nsw.gov.au/system/files/media/documents/2024/Bi-mode%20fact%20sheet%20September%202024%20-%20WCAG.pdf
[29] https://www.sydneymetro.info/our-approach-sustainability

footprint, while complying with all applicable environmental laws, regulations and statutory obligations

- being socially responsible by working towards improving liveability and accessibility in the Greater Sydney region
- delivering a workforce and skills legacy which benefits individuals, communities, metro projects and industry, achieved through collaboration and partnerships.

All of Sydney Metro's trains, stations and operational facilities are powered entirely by renewable electricity since mid-2019. This includes a 1.1 megawatt solar array on the roof of the Sydney Metro operator's head office in Rouse Hill.

Transport has changed the sourcing of electricity, opting out of non-renewable power when purchasing electricity from the grid. Sydney Metro's renewable energy certificates are being sourced from a purpose-built solar farm at Beryl near Gulgong in central NSW. The use of renewable energy certificates is the most transparent way to ensure the supply of electricity that powers the Metro trains comes from 100% renewable sources. The certificate system also helps grow the local renewable energy industry, with revenue generated from the sale of certificates encouraging further investment in renewable energy generation.

6.4 Other relevant NSW Government commitments

- The Climate Change Fund, established in 2007
- The NSW Circular Economy Policy Statement (2019)
- The Net Zero Plan Stage 1: 2020 – 2030 (2020)
- The NSW Electricity Infrastructure Roadmap (2020)
- The NSW Hydrogen Strategy (2021)
- The Future Transport Strategy (2022)
- The NSW Clean Air Strategy (2022)
- The Towards Net Zero Emissions Freight Policy (2023)
- The Critical Minerals and High-tech Metals Strategy (2023)
- The Renewable Manufacturing Fund (2024)
- The NSW Consumer Energy Strategy (2024)
- The Net Zero Government Operations Policy (2024)

Appendix

Table 1: Summary of DCCEEW's Electric Vehicle Supply Equipment Programs by Location

Local Government Area	Sites	# Bays Ports Plugs
Albury City Council	**10**	**41**
Destination Charging R1	5	17
Destination Charging R2	4	8
Fast Charging R1	1	16
Armidale Regional Council	**3**	**11**
Destination Charging R1	1	8
Destination Charging R2	2	3
Ballina Shire Council	**3**	**7**
Destination Charging R1	1	4
Destination Charging R2	2	3
Bathurst Regional Council	**5**	**8**
Destination Charging R1	2	4
Destination Charging R2	3	4
Bega Valley Shire Council	**15**	**42**
Destination Charging R1	9	24
Destination Charging R2	6	18
Bellingen Shire Council	**2**	**2**
Destination Charging R2	2	2
Berrigan Shire Council	**4**	**8**
Destination Charging R1	1	2
Destination Charging R2	3	6
Blacktown City Council	**1**	**2**
Kerbside R1	1	2
Bland Shire Council	**1**	**2**
Destination Charging R2	1	2
Blayney Shire Council	**1**	**1**
Destination Charging R2	1	1
Blue Mountains City Council	**17**	**41**
Destination Charging R1	2	6
Destination Charging R2	14	29
Fast Charging R1	1	6
Brewarrina Shire Council	**1**	**1**
Destination Charging R2	1	1
Broken Hill City Council	**1**	**4**
Destination Charging R1	1	4
Burwood Council	**1**	**2**
Kerbside R1	1	2
Byron Shire Council	**7**	**20**

Destination Charging R1	1	4
Destination Charging R2	6	16
Cabonne Council	**8**	**15**
Destination Charging R2	8	15
Campbelltown City Council	**1**	**9**
Fast Charging R1	1	9
Canterbury Bankstown Council	**1**	**6**
Fast Charging R1	1	6
Carrathool Shire Council	**2**	**4**
Destination Charging R2	2	4
Central Coast Council	**21**	**68**
Destination Charging R1	7	22
Destination Charging R2	12	30
Fast Charging R1	2	16
Cessnock City Council	**19**	**49**
Destination Charging R1	4	12
Destination Charging R2	15	37
Clarence Valley Council	**7**	**19**
Destination Charging R1	1	1
Destination Charging R2	6	18
Coffs Harbour City Council	**4**	**9**
Destination Charging R1	1	2
Destination Charging R2	3	7
Coolamon Shire Council	**2**	**4**
Destination Charging R1	2	4
Cootamundra-Gundagai Regional Council	**4**	**14**
Destination Charging R2	4	14
Council of the City of Sydney	**1**	**6**
Fast Charging R1	1	6
Dubbo Regional Council	**8**	**20**
Destination Charging R1	5	15
Destination Charging R2	3	5
Dungog Shire Council	**4**	**10**
Destination Charging R2	4	10
Edward River Council	**5**	**22**
Destination Charging R1	4	18
Destination Charging R2	1	4
Eurobodalla Shire Council	**11**	**27**
Destination Charging R1	6	17
Destination Charging R2	5	10
Federation Council	**8**	**26**
Destination Charging R1	3	14
Destination Charging R2	5	12
Georges River Council	**2**	**3**

Kerbside R1	2	3
Goulburn Mulwaree Council	**4**	**6**
Destination Charging R1	1	2
Destination Charging R2	3	4
Greater Hume Shire Council	**3**	**9**
Destination Charging R1	1	1
Destination Charging R2	2	8
Griffith City Council	**4**	**12**
Destination Charging R2	3	6
Fast Charging R1	1	6
Gunnedah Shire Council	**1**	**1**
Destination Charging R2	1	1
Gwydir Shire Council	**3**	**5**
Destination Charging R2	3	5
Hay Shire Council	**4**	**16**
Destination Charging R1	1	4
Destination Charging R2	2	6
Fast Charging R1	1	6
Hilltops Council	**3**	**12**
Destination Charging R1	1	4
Destination Charging R2	2	8
Inner West Council	**66**	**81**
Kerbside R1	66	81
Inverell Shire Council	**3**	**6**
Destination Charging R1	1	2
Destination Charging R2	2	4
Kempsey Shire Council	**3**	**8**
Destination Charging R1	1	2
Destination Charging R2	2	6
Kiama, The Council of the Municipality of	**4**	**11**
Destination Charging R2	4	11
Ku-ring-gai Council	**2**	**6**
Kerbside R1	2	6
Kyogle Council	**6**	**12**
Destination Charging R1	4	8
Destination Charging R2	2	4
Lake Macquarie City Council	**12**	**37**
Destination Charging R1	7	23
Destination Charging R2	5	14
Lismore City Council	**1**	**4**
Destination Charging R1	1	4
Lithgow Council, City of	**3**	**10**
Destination Charging R2	3	10
Liverpool City Council	**1**	**4**

Fast Charging R1	1	4
Liverpool Plains Shire Council	**3**	**6**
Destination Charging R2	3	6
Lockhart Shire Council	**3**	**6**
Destination Charging R1	3	6
Maitland City Council	**14**	**34**
Destination Charging R1	8	19
Destination Charging R2	6	15
Mid-Coast Council	**10**	**47**
Destination Charging R1	3	18
Destination Charging R2	6	17
Fast Charging R1	1	12
Mid-Western Regional Council	**14**	**29**
Destination Charging R1	4	8
Destination Charging R2	10	21
Moree Plains Shire Council	**2**	**8**
Destination Charging R1	1	4
Destination Charging R2	1	4
Murray River Council	**8**	**23**
Destination Charging R1	4	16
Destination Charging R2	4	7
Murrumbidgee Council	**2**	**4**
Destination Charging R1	1	2
Destination Charging R2	1	2
Muswellbrook Shire Council	**4**	**9**
Destination Charging R1	1	2
Destination Charging R2	3	7
Nambucca Valley Council	**2**	**5**
Destination Charging R2	2	5
Narrabri Shire Council	**2**	**6**
Destination Charging R2	1	2
Fast Charging R1	1	4
Narrandera Shire Council	**2**	**6**
Destination Charging R2	2	6
Newcastle City Council	**4**	**13**
Destination Charging R2	3	11
Kerbside R1	1	2
Oberon Council	**5**	**13**
Destination Charging R1	1	4
Destination Charging R2	4	9
Orange City Council	**11**	**30**
Destination Charging R1	1	2
Destination Charging R2	9	22
Fast Charging R1	1	6

Parkes Shire Council	**4**	**12**
Destination Charging R2	3	8
Fast Charging R1	1	4
Port Macquarie-Hastings Council	**7**	**25**
Destination Charging R1	5	20
Destination Charging R2	2	5
Port Stephens Council	**9**	**31**
Destination Charging R1	4	8
Destination Charging R2	4	11
Fast Charging R1	1	12
Queanbeyan-Palerang Regional Council	**5**	**17**
Destination Charging R1	2	12
Destination Charging R2	3	5
Randwick City Council	**25**	**32**
Kerbside R1	25	32
Richmond Valley Council	**1**	**1**
Destination Charging R2	1	1
Shellharbour City Council	**2**	**8**
Destination Charging R1	1	4
Destination Charging R2	1	4
Shoalhaven City Council	**25**	**59**
Destination Charging R1	1	4
Destination Charging R2	23	51
Fast Charging R1	1	4
Singleton Council	**11**	**25**
Destination Charging R1	1	2
Destination Charging R2	10	23
Snowy Monaro Regional Council	**10**	**36**
Destination Charging R1	4	14
Destination Charging R2	6	22
Snowy Valleys Council	**5**	**12**
Destination Charging R1	1	4
Destination Charging R2	4	8
Sutherland Shire Council	**1**	**4**
Fast Charging R1	1	4
Sydney, Council of the City of	**6**	**12**
Kerbside R1	6	12
Tamworth Regional Council	**8**	**22**
Destination Charging R2	8	22
Temora Shire Council	**1**	**4**
Destination Charging R2	1	4
Tenterfield Shire Council	**1**	**4**
Fast Charging R1	1	4
Tweed Shire Council	**6**	**18**

Destination Charging R1	4	12
Destination Charging R2	1	2
Fast Charging R1	1	4
Upper Hunter Shire Council	**2**	**5**
Destination Charging R2	2	5
Upper Lachlan Shire Council	**1**	**2**
Destination Charging R2	1	2
Uralla Shire Council	**1**	**4**
Destination Charging R2	1	4
Wagga Wagga City Council	**9**	**25**
Destination Charging R1	6	13
Destination Charging R2	2	6
Fast Charging R1	1	6
Walcha Council	**1**	**1**
Destination Charging R2	1	1
Walgett Shire Council	**1**	**4**
Destination Charging R2	1	4
Warrumbungle Shire Council	**1**	**1**
Destination Charging R2	1	1
Waverley Council	**15**	**17**
Kerbside R1	15	17
Weddin Shire Council	**1**	**2**
Destination Charging R1	1	2
Willoughby City Council	**5**	**16**
Fast Charging R1	1	8
Kerbside R1	4	8
Wingecarribee Shire Council	**7**	**25**
Destination Charging R1	3	12
Destination Charging R2	4	13
Wollongong City Council	**7**	**29**
Destination Charging R2	5	17
Fast Charging R1	1	6
Fast Charging R2	1	6
Woollahra Municipal Council	**12**	**18**
Kerbside R1	12	18
Yass Valley Council	**1**	**12**
Fast Charging R1	1	12
Grand Total	580	1465

Table 2: Transport's Regional Fast Charger Program

Ref	Town	Number of Chargers	Power of Chargers	Launch date MM/YYYY
1	Tenterfield	1	50 kW	12/2020
2	Armidale	1	50 kW	12/2020
3	Scone	1	50 kW	09/2020
4	Yass	1	50 kW	09/2020
5	Jerilderie	1	50 kW	02/2021
6	Broken Hill	1	75 kW	02/2022
7	Coonamble	2	75 kW	11/2021
8	Walgett	1	75 kW	11/2021
9	Wagga Wagga	1	50 kW	09/2020
10	Cobar	1	75 kW	05/2022
11	Wilcannia	2	75 kW	05/2022
12	Casino	2	75 kW	09/2022
13	Temora	1	50 kW	09/2022
14	Bourke	2	75 kW	12/2022
15	Brewarrina	2	75 kW	12/2022
16	Nyngan	2	75 kW	12/2022
17	Wollongong	2	75+175 kW	02/2023
18	Inverell	2	75 kW	11/2023
19	Dorrigo	2	75kW	11/2023
20	Moree	2	75 kW	11/2023
21	Narrabri	2	75 kW	11/2023
22	Walcha	2	75 kW	11/2023
23	Gilgandra	2	75 kW	12/2023
24	Braidwood	2	75 kW	12/2023
25	Moruya	TBC	TBC	TBC

Table 3A: Transport for NSW commuter car park EV Charging program

Ref	Town / Train Station	Number of Chargers	Power of Chargers	Launch date MM/YYYY
1	Rooty Hill	8	7 kW	12/2019
2	Leppington	10	7 kW	12/2021
3	Edmondson Park	20	7-22 kW	02/2022
4	Lindfield	10	7-22 kW	02/2022

Table 3B: Commuter car park EV Charging program in partnership with Jolt

Ref	Town / Train Station	Number of Chargers	Power of Chargers	Launch date MM/YYYY
1	Penrith	1	25 kW	12/2023
2	Cronulla	1	25 kW	12/2023
3	Oatley	1	25 kW	01/2024
4	Berowra	1	25 kW	02/2024
5	Roseville	1	25 kW	02/2024