



ELECTRIC VEHICLE CHARGING INFRASTRUCTURE GUIDELINES



CONTENTS

CONTENTS



PURPOSE	6
CONTEXT	8
PRINCIPLES	10
APPLICATION OF THE GUIDELINES	12
Council Installed and Managed Infrastructure	12
Third Party Provider Electric Vehicle Infrastructure Management	13
SITE SELECTION	16
Site Selection Criteria	16
SAFETY	18
Regular Maintenance	18
Smart Charging	18
RCM Tick Compliance	18
Signage	18
AS/NZS 3000 Appendix P Compliance	20
Collision Protection	20
Proximity to Evacuation Routes and Flammable Risks	20
Lighting	20
EV CHARGING DESIGN CONSIDERATIONS	22
Visibility and Identification	22
Parking Configuration	23
ELECTRIC VEHICLE CHARGING TECHNOLOGY	25
ENVIRONMENTAL CONSIDERATIONS	26
REVIEW	26
REFERENCES & RESOURCES	27

DOCUMENT HISTORY

VERSION	MONTH OF ADOPTION	YEAR OF ADOPTION
1.0	September	2022



1. PURPOSE OF THE GUIDELINES

The purpose of Shellharbour City Council's Electric Vehicle Charging Infrastructure Guidelines (The Guidelines), is to provide conditions for the design, provision, installation, management, maintenance and removal of Electric Vehicle (EV) charging infrastructure on Council owned or controlled land in the Shellharbour Local Government Area (LGA) by Council or third-party providers.

The Guidelines relate to charging infrastructure that is intended for use by both the public and Council's vehicle fleet.

Requirements have been determined for the identification and assessment of suitable locations, appropriate types of infrastructure and potential partnership opportunities to deliver the best charger outcomes for the community.

The Guidelines do not apply to the provision of EV charging stations on private land.



Shellharbour City Council Electric Vehicle

2. CONTEXT OF THE GUIDELINES

The transport sector contributes significantly to carbon pollution and greenhouse gas emissions (emissions). Transport emissions are currently projected to become the leading source of emissions in NSW by 2035, overtaking both electricity and other stationary energy sources (NSW Electric Vehicle Strategy, 2021).

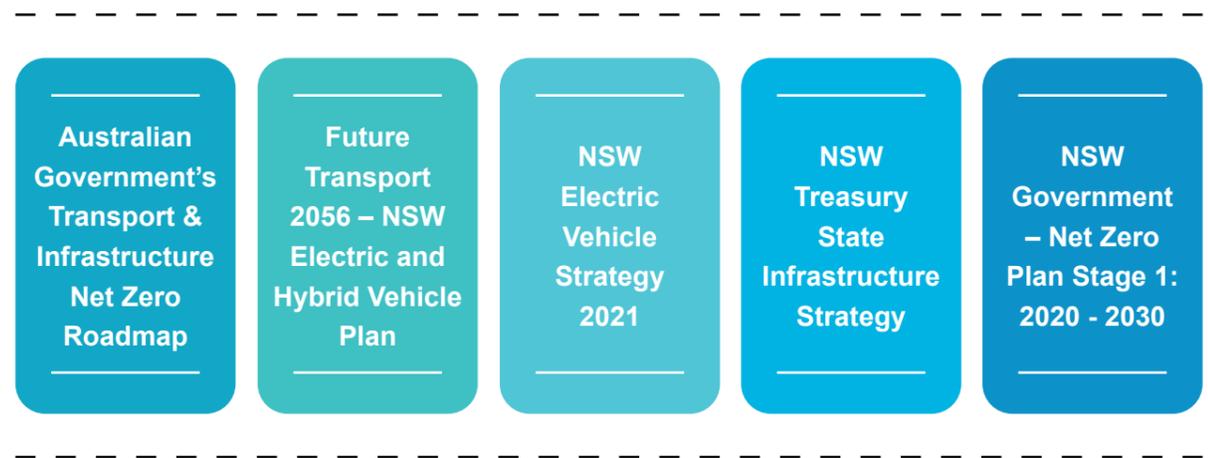
Increasing the number of EVs and powering them with renewable energy will help to reduce emissions across the transport sector, contributing towards Shellharbour City Council and the NSW Government's objectives to achieve net zero emissions by 2050.

In recent times global demand has increased dramatically, with over 40 million EVs on the road in 2023 compared to less than 20,000 in 2010 (International Energy Agency, 2020 & 2024). The number of EVs on Australian roads also continues to increase with 114,000 new battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV) sold in Australia in 2024 (Electric Vehicle Council, 2024). The NSW Government predict that by 2030 there will be up to 13,419 EVs in the Shellharbour LGA.

A suitable network of EV charging infrastructure will be required across the region and beyond to support the predicted growth of the EV market.

Research conducted in countries with high EV uptake suggests that approximately 80-90% of EV charging occurs at home (University of Melbourne, 2020). However, not all EV users have access to at-home charging due to a range of factors such as limited off-street parking, space availability and energy supply distribution. These Guidelines support the growth of a local charging network that provides for a range of charging speeds and community needs.

The preparation of the Guidelines has been informed by industry best practice, legislation and relevant federal, state and local plans and strategies. These include:



Council's Local Strategic Planning Statement (LSPS) creates a land use planning vision for the future of Shellharbour City LGA. It provides the basis for future land use planning and the management of growth based on the community's economic, social and environmental needs over the next 20 years.

Concurrent implementation of the LSPS and the EV Charging Infrastructure Guidelines will assist Council to ensure that the evolving EV charging network on Council owned and controlled land is delivered in an efficient, inclusive and accessible manner that is responsive to technological advances.

3. PRINCIPLES OF THE GUIDELINES

The Guidelines will:

- a. Support the delivery of EV charging infrastructure on Council owned or controlled land
- b. Support Council's endorsed net zero 2035 operational and net zero 2050 community targets
- c. Respond to community expectation for action on climate change
- d. Promote the uptake of EV's locally and nationally by supporting an increase in available infrastructure
- e. Promote visitation to our LGA by encouraging the placement of EV charging infrastructure at desirable tourist locations. Provide direction for providers of EV infrastructure in the allocation of suitable locations on public land and Council requirements
- f. Support positive public health outcomes by promoting cleaner vehicle technologies
- g. Provide a network of EV chargers which consider accessibility and community safety
- h. Ensure a fair and equitable selection of providers that supports current EVs and charging types by:
 - Providing universal charging facilities, or reasonable provision made for the adaptation of the infrastructure to support all types of EVs (refer to Section 7.3 for preference of connector types); or
 - Establishing an expression of interest process when an applicant (other than Council) proposes exclusive use of EV charging infrastructure for a particular vehicle type, group of users or any other exclusionary particulars.



Shellharbour City Council Electric Vehicle

4. APPLICATION OF THE GUIDELINES

Council will consider both Council installed and managed infrastructure as well as third party provider infrastructure for the provision of EV charging. Council, or the provider of the charging infrastructure, will include the location of all charging locations on relevant parking management tools for visibility to the customer, such as parking apps.

At a minimum, no less than two dedicated EV charging car parking spaces must be provided at each location with the consideration of one accessible space which is usable for people with disabilities and meets the requirements of AS2890.1, AS2890.5, and AS2890.6. This space is not required to be line marked as an accessible parking space however wider parking bay widths or shared zones will be incorporated where appropriate. Council will provide accessible electric vehicle charging layouts to the successful applicant as required.

Consideration must also be given to U.S. Access Boards publication 'Design Recommendations for Accessible Electric Vehicle Charging Stations' which details compatible EV parking space design, route considerations and charger placement/operability for those with accessibility needs.

4.1 COUNCIL INSTALLED AND MANAGED INFRASTRUCTURE

4.1.1 Provision of Service

- 4.1.1.1** Council will install publicly accessible EV charging infrastructure in locations of its choosing based on demand and strategic decision criteria. Where relevant community consultation will be undertaken.
- 4.1.1.2** Council will include the location of all charging locations on relevant parking management tools for visibility to the customer, such as parking apps.
- 4.1.1.3** Council reserves the right to charge all users equally across the sector, based on the service provided.
- 4.1.1.4** All data collected as part of the service will be stored securely and locally in line with Council's Information Management criteria.
- 4.1.1.5** Council will provide universal charging systems that are not assigned to any particular vehicle manufacturer, that are designed to provide top up charging and will be time restricted to ensure equitable access. This may be achieved through hardware, software, legislation options and varied between time of day, location, and technology used.

4.1.2 Cost Recovery – Fees and Charges

- 4.1.2.1** Whilst Council may fund the infrastructure from capital sources or grants, the operational cost will be recovered from the customer.
- 4.1.2.2** Usage charges will be set by decision of Council in the annual fees and charges, based on the electricity cost projection for the corresponding period and apportionment of costs of asset ownership such as depreciation, operation and maintenance.

4.2 THIRD PARTY PROVIDER ELECTRIC VEHICLE INFRASTRUCTURE MANAGEMENT

Any provision of EV charging stations on public land will be subject to licensing/leasing arrangements, or similar, between the provider and Shellharbour City Council, in compliance with all relevant Council policies. The provider must obtain all applicable approvals and consents. Entering into a lease or licence agreement with Council to utilise public land for installation and operation of an EV charging station in no way guarantees development consent or approval. All risk, public safety and legal liability issues will be specified via any lease agreements.

4.2.1 Eligibility of provider

- 4.2.1.1** Any provider wishing to deliver EV infrastructure within the Shellharbour LGA on Council owned or controlled land must express their interest to Council.
- 4.2.1.2** Where necessary, the eligibility of a provider will be determined through an Expression of Interest (EOI) process that is open to the market and will be evaluated by Council based on the Schedules detailed in the EOI.
- 4.2.1.3** Council will determine proposed locations for EV infrastructure.

4.2.2 Obligation of provider

- 4.2.2.1** It is the provider's responsibility to abide by the relevant legislation and technical requirements in order to operate within the Shellharbour LGA.
- 4.2.2.2** It is the provider's responsibility to financially commit to the cost of the EV infrastructure, rent (if applicable), maintenance and repairs, capital improvements, essential services, site outgoings and ensuring that the site is operational at all times.
- 4.2.2.3** The provider must include the location of all charging locations on relevant parking management tools for visibility to the customer, such as parking apps.
- 4.2.2.4** It is the provider's responsibility to ensure that the site is safe and accessible for all users at all times. The provider must meet all legislation and statutory obligations.
- 4.2.2.5** The provider must enter into a data sharing arrangement with Shellharbour City Council to provide real time access to usage and membership information.

4.2.2.6 Council reserves the right to terminate the agreement between Council and the provider according to the terms and conditions within the agreement, such as conflict of interest from the community. Written notice should be provided with 6 months' notice by Council. A provision may be included within the agreement in which Council has the opportunity to purchase the structures erected on the land. Both the provider and Council will obtain an independent valuation and an agreement to be decided by way of negotiation according to the valuation reports.

4.2.3 Lease arrangement

4.2.3.1 Any provision of EV charging stations on public land will be subject to licensing/leasing arrangements, or similar, between the provider and Shellharbour City Council. Licence and/or lease terms shall be in accordance with Council's related Policies.

4.2.3.2 Subject to obtaining the required planning approval/s, entering into a lease or licence agreement with Council to utilise public land for installation and operation of an EV charging station in no way guarantees development consent or approval.

4.2.3.3 Council reserves the right to require appropriate remuneration for use of Public Land for the apportionment of user fees or through a fee structure, or other. This is to be determined on a case-by-case basis as part of any licence/lease (or other) arrangement and in accordance with Council's annual Fees and Charges.

4.2.3.4 Council may consider a Public-Private Partnership with relevant providers to deliver EV charging stations on Public Land. This will be subject to negotiation on a case-by-case basis.

4.2.3.5 The provider must not transfer the agreement between Council and the provider without Council consent.

4.2.3.6 The provider must allow Council access to the site if Council provides reasonable notice

4.2.3.7 The provider must only use the site for the permitted use in the agreement.

4.2.3.8 Permission granted by Council for the provision of a charging station on Council land will not preclude Council from allowing other providers including Council to offer charging facilities on nearby land or through the use of 'Smart Poles' or similar infrastructure, with or without charging fees to end users.

4.2.4 Installation, maintenance and removal

4.2.4.1 The installation, maintenance and removal associated with the installation and operation of any given EV charging station is the responsibility of the provider, unless by prior agreement with Council. This includes ancillary infrastructure such as safety provisions, dedicated car parking spaces including line and pavement marking, signage, lighting, bollards and the like, and the future reinstatement of the site to match the existing surrounding domain, when required.

4.2.4.2 Under the lease agreement the provider shall implement a maintenance schedule which includes regular inspections. All maintenance and works shall be carried out in a timely manner to avoid delays to service, with a requirement for providers offering 24/7 customer service based in Australia to be confirmed in the application submission. Third party providers should provide details of where to report faults or damages and produce and maintain relevant insurances. All other hazards relating to the facility should be considered by them and managed appropriately.

4.2.4.3 Support mechanisms including number of staff for customer service and response, response times for technical issues and faults and locations of servicing providers must be located within- or within reasonable proximity to the Shellharbour LGA and must make immediate effort to rectify any risks from electrical hazards and notify Council immediately. Information on these response times is to be provided to Council with reports on usage to demonstrate compliance.

4.2.4.4 Non-compliance with this provision may lead to the termination of any agreement between the provider and Council and may result in the forced removal of all infrastructure and make good of the land, at the cost and responsibility of the provider. Anything not removed becomes the property of the Council who can keep it or remove and dispose of it and charge the provider for all works carried out by the Council.

4.2.5 Security deposit and/or bond

4.2.5.1 Prior to the commencement of any works on public land, Council will require a security bond or other security mechanism to be paid by the provider together with all applicable insurances and warranties. This security payment will be of sufficient value to cover all works required to reinstate the site to its original condition and might be held by Council for the duration of any lease or licence agreement.

4.2.5.2 Council reserves the right to amend the security bond/deposit payment at any time.

4.2.5.3 Any costs incurred by Council in excess of the security amount will be borne by the third-party provider, with further details to be specified within the lease or licence agreement, including alternative arrangements if the creation and maintenance of a security bond for the duration of the lease/license is not the preferred or most suitable option for Council.

5. SITE SELECTION

Council will consider a range of locations for EV charging infrastructure, including those that are in strategic and tourism destinations. Council will consider a site based on the following factors:

- Existing and/or potential demand for EV charging;
- Electrical infrastructure;
- Proximity to local amenities;
- User safety including the application of Crime Prevention Through Environmental Design (CPTED) principles;
- Site accessibility;
- Impact on local parking demand; and
- Current or forecast planning across the LGA.

Council will also aim to ensure that charger speeds are selected to complement the location within which they are installed, and that a variety of charging speeds are made available to community and visitors of the Shellharbour LGA to service a variety of user needs.

In addition to the considerations outlined above, a third party owned publicly accessible EV charging site may be considered suitable for EV charging infrastructure where the proposal meets site selection criteria.

5.1 SITE SELECTION CRITERIA

- 5.1.1** The land is Public Land, as defined in the Local Government Act 1993 and Roads Act 1993 respectively; and
- 5.1.2** The proposed site has a suitable land classification. Land classified as operational land is preferred, however community land may be considered suitable where the proposal is in accordance with the Local Government Act, 1993, Crown Land Management Act, 2016 and the relevant Plan of Management for that land; and
- 5.1.3** EV charging infrastructure is permissible under the relevant legislation (Shellharbour Local Environment Plan 2013, State Environmental Planning Policy (Transport and Infrastructure) 2021, Crown Land Management Act 2016, The Roads Act 1993, Disability Discrimination Act 1992) at the proposed location. Note: the provider is responsible for securing development consent or approval, where applicable, from the relevant planning authority on a case-by-case basis; and

- 5.1.4** The appropriate due diligence process has been followed, including the preparation of an Aboriginal heritage study, in the event a nominated site is identified as an area of cultural significance; and
- 5.1.5** The appropriate due diligence process is followed investigating the presence of acid sulfate soils
- 5.1.6** Compliance with AS/NZS 60079.10.1 Explosive gas atmospheres has been adequately assessed. Incompatible adjacent activities include but are not limited to LPG or chlorine storage areas, waste bin areas associated with apartment complexes, areas which are known to be subject to regular car dumping; and
- 5.1.7** Flood potential has been adequately considered with preference for a H1 classification in a 1% flood scenario; and
- 5.1.8** The electricity supply infrastructure capacity of the existing electrical supply network is suitable (or can be reasonably upgraded). Note: Council will not contribute to the cost or be responsible for the provision, or upgrade to, electrical supply infrastructure to service a proposed EV charging site, unless by prior agreement; and
- 5.1.9** The land has reasonable connection to the wider road network; and
- 5.1.10** The charging infrastructure does not obstruct vehicular, cyclist or pedestrian to or from an accessway, driveway or building or along a cycleway or footpath; and
- 5.1.11** The charging infrastructure does not conflict with any existing or planned development/ redevelopment including footpath, shared paths or bike paths in the next 5 years; and
- 5.1.12** The charging infrastructure and its operation will not adversely impact upon the amenity of surrounding development or the public domain, and will not affect existing underground services in the area; and
- 5.1.13** Where relevant consultation will be undertaken with the community and relevant stakeholders as part of the selection process.

6. SAFETY

In order to minimise risks associated with chargers on Council owned and controlled land in the Shellharbour LGA, the following measures must be put in place by the installer:

6.1 REGULAR MAINTENANCE

- 6.1.1 Installers must consult the Original Equipment Manufacturer (OEM) guidelines and recommendations regarding maintenance.
- 6.1.2 Maintenance must be documented and copies supplied to Council upon request.

6.2 SMART CHARGING

- 6.2.1 Installers must prioritise the use of 'smart charging' to enable remote monitoring and access to disconnect power supply to a connected EV. This gives emergency responders another potential method of shutdown from unit to EV. Operators are encouraged to monitor for faults and provide early intervention when detected.

6.3 RMC TICK COMPLIANCE

- 6.3.1 Ensure that chargers, any non-tethered cables secured at the site for users and replacement parts all have the Regulatory Compliance Mark (RCM) and comply with relevant Australian standards and road design guidelines.

6.4 SIGNAGE

- 6.4.1 Provide appropriate wayfinding and charger location signage as per Transport for NSW (TfNSW) requirements and relevant industry standards including but not limited to:
 - AS1742 Manual of Uniform Traffic Control Devices
 - AS1743 Road Signs – Specifications
 - AS1744 Standard Alphabets for Road Signs
 - AS2890 Parking Facilities
 - AS1319 Safety signs for the occupational environment (as referenced in Council's Safety Signage Guideline.)
- 6.4.2 Appropriate signage should be visible to give an emergency responder the ability to easily locate an e-stop button or lock-out switch to safely shut down the power to all charging at any site.

- 6.4.3 Provide the following user awareness poster or equivalent to assist with the identification of hazards and safe charging procedure.

ELECTRIC VEHICLE SAFER CHARGING SYSTEM

It's good to know EV incidents & fires at charging sites are rare, but it's important to be aware of the hazards & know what to do.

Do not charge your EV if it:

-  Has been involved in a road traffic collision where emergency help was required, submerged in flood water, exposed to fire or has been recalled by the manufacturer

> Get EV checked by dealer or service centre

Before & after charging:

-  Check for fault or warning lights on dashboard or app
Check the charging unit, plug & cable for wear & tear
Do not use damaged charging equipment

> Review user manual or notify charging site owner

-  Ensure cables are not at risk of causing a trip or snip hazard
Where possible, minimise use of extension cords & power boards
After charging, place cables in a safe place to reduce risk of damage, wear & tear

Know the signs of EV battery fire

-  EV battery fires are rare, but be alert to the signs of:
Loud popping, hissing or whistling noises
Large clouds of dark & light gases (looks like smoke)

> Evacuate & call for emergency help

Location:

In an emergency, call:

Call site contact:

Poster by EV FireSafe. See evfiresafe.com and evfiresafe.training for more on electric vehicle emergency response and charging fire safety.

This poster is designed for general guidance only & should not be considered regulatory in any way. This poster must not be duplicated or reproduced in any way. EV FireSafe & EV FireSafe for Business accepts no liability for losses caused to any entity from any EV incident. EV FireSafe is an Australian company funded by the Department of Defence to research electric vehicle battery fires & emergency response. See our research at evfiresafe.com & learn with us at evfiresafe.training



6.5 AS/NZS 3000 APPENDIX P COMPLIANCE

- 6.5.1 Mode 3 (3-phase 16A-32A (11-22kW)) and mode 4 (DC 150-400kW) chargers should only be installed by a qualified person and in accordance with AS/NZS 3000 Appendix P.

6.6 COLLISION PROTECTION

- 6.6.1 Provide vehicle impact bollards and/or wheel stops.

6.7 PROXIMITY TO EVACUATION ROUTES AND FLAMMABLE RISKS

- 6.7.1 Proximity to evacuation routes must be assessed to avoid blocking these routes (ie. avoid placing near entry to a car park, building access, emergency exits, lifts, building utilities, critical infrastructure) or placing chargers close to other flammable risks.
- 6.7.2 Avoid placing chargers within 10 meters of hydrants and booster systems to ensure that they are not blocked in the event of an incident.
- 6.7.3 Careful consideration of how a tow truck can move through the site.

6.8 LIGHTING

- 6.8.1 Adequate lighting that remains illuminated in low light periods/night (not timed/sensor lighting) must be provided for the safety and security of drivers, passengers, vehicles and associated infrastructure. Consideration must also be given to social impact and the application of CPTED principles for each location.
- 6.8.2 Lighting must be sufficient to easily read related signs, instructions, controls on vehicles, controls on EV infrastructure and to identify and provide visibility of all EV charging inlet locations and for charging cable visibility and proper management, preventing trip hazards and must not obstruct traffic sightlines or pedestrian mobility or footpath access.



Windang Bridge

7. EV CHARGING DESIGN CONSIDERATIONS

7.1 VISIBILITY AND IDENTIFICATION

The provider (whether Council or Third Parties) is responsible to ensure that the facility and all ancillary infrastructure (including signage, parking bays and charging infrastructure) shall be easily visible and accessible for users to find, with consideration of the following:

- 7.1.1** Wayfinding signage will be required to allow users to find the EV charging station from the main road network, similar to wayfinding signs for car parking. Wayfinding signage shall be consistent with Transport for NSW (TfNSW) requirements and relevant industry standards with the standards and guidelines listed in Section 6; and
- 7.1.2** Instructional signage must be provided on how to use the EV charger. Signage must be clearly visible to the user at the charging site and/or accessible via a QR code displayed on the charger; and
- 7.1.3** All EV car parking spaces/charging bays are to incorporate 'No Parking Electric Vehicles Excepted While Charging' (TfNSW sign no. R5-40-1n) signage unless otherwise directed by Council. Signage shall be provided in accordance with relevant Australian Standards, technical directions from TfNSW and other relevant authorities. Should an EV not be charging, or another car parked on the dedicated parking bay, including a non-plug-in hybrid EV, the driver may incur a fine (Disobey No Parking Sign); and
- 7.1.4** All EV dedicated parking spaces shall be clearly labelled using 'Electric Vehicle Pavement Marking' painted on the ground (in accordance with TfNSW or similar according to best industry practice) and endorsed by the Shellharbour Local Transport Forum and Council prior to installation. An exemption to this provision may be considered in areas where it is inappropriate or not possible, provided that sufficient alternative identification can be provided to the satisfaction of Council in a manner that allows for more widespread charging including the use of 'Smart Poles' or other similar infrastructure; and
- 7.1.5** As outlined in sections 5 & 6 above, adequate lighting must be provided for the safety and security of drivers, passengers, vehicles and associated infrastructure. Parking spaces shall be located to optimise passive surveillance and ensure safe sight distances for pedestrians, vehicles and bicycles are met according to CPTED principles; and
- 7.1.6** The use of advertising by any provider is to be disclosed to Council in the initial application process and disclosed as part of the community engagement process. Separate planning approvals may be required for the presence of advertising. Advertising must comply with relevant standards. Advertising that contains tobacco, nicotine, alcohol and gambling will be prohibited from any EV charging infrastructure and site in the Shellharbour LGA.

7.2 PARKING CONFIGURATION

The following must be considered:

- 7.2.1** All aspects of EV charging bays are to be designed and constructed in accordance with relevant Australian Standards and current industry best practice which include but are not limited to:
 - AS/NZS 2890 (Set) Parking Facilities
 - AS/NZS 1158 Lighting for Public Roads and Public Spaces
 - AS/NZS 3000 Electrical Installations
 - AS/NZS 1742 (Set) Manual of Uniform Traffic Control Devices
 - Austroads Guidelines for Low and Zero Emission Vehicle Charging Infrastructure Installation
 - Transport for NSW Electric Vehicle Pavement Marking with/out Charging Restrictions diagram (contained within the TfNSW traffic signs online register)
- 7.2.2** As outlined in Section 4, no less than two dedicated EV charging car parking spaces must be provided at each location with the consideration of one accessible space which is usable for people with disabilities and meets the requirements of AS2890.1, AS2890.5 and AS2890.6. This space is not required to be line marked as an accessible parking space; and
- 7.2.3** Consideration must be given to the placement of the station to avoid obstruction of shared spaces required for wheelchair access in accordance with AS2890.1, AS 2890.5 and AS 2890.6 and the Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling, and that all operable parts of a charging station are easily useable by those with accessibility needs. Consideration must also be given to U.S. Access Boards publication 'Design Recommendations for Accessible Electric Vehicle Charging Stations' which details compatible EV parking space design, route considerations and charger placement/operability for those with accessibility needs; and
- 7.2.4** Preference will be given to the provision of inclusive EV charging infrastructure that can cater for different user needs, and that can serve two or more adjoining / adjacent parking spaces with mounting systems requiring minimum floor or wall space, observed the constraints of each location and the benefits for community; and
- 7.2.5** All EV parking spaces / charging bay foundations shall be constructed to Council's specifications including sealing, kerb and guttering, kerb ramps, signage and line-marking; and
- 7.2.6** All wiring is to be undergrounded before the proposed property boundary and any new private poles and additional overhead wiring within parks/road reserve should be avoided wherever possible for installations proposing independent electrical connections to power the EV charging infrastructure; and

- 7.2.7** If, through the proposed EV dedicated parking bays within a Council-owned carpark requires a new car park layout, the providers will be required to fund the new design and all costs associated with required signage and line marking; and
- 7.2.8** All Providers will be required to prepare detailed concept designs and works as executed drawing packages to Council approval for the optimal installation of the proposed EV charging infrastructure in accordance with requirements for development applications involving works on public land. These requirements will include footprint and setbacks, mounting systems proposed for the chargers, trench works and alignment (if required), relocation of assets on public land (if applicable), and proposed electrical connections with existing power supply or details on proposed electrical upgrades; and
- 7.2.9** Detailed civil engineering plans are to be provided with any applications for on street EV charging infrastructure. The plans must include all dimensions, signage and line-marking and must demonstrate compliance to the relevant Australian Standards and design guidelines outlined above for endorsement by the Shellharbour Local Transport Forum and Council; and
- 7.2.10** All line-marking is to be in accordance with the TfNSW Delineation and Pavement Marking Manual.

7.3 ELECTRIC VEHICLE CHARGING TECHNOLOGY

Council's objective is to facilitate the provision of EV charging infrastructure in an efficient, inclusive and accessible manner. The installation of EV charging on Public Land within the Shellharbour LGA shall be consistent with current industry practice and at a minimum include:

- 7.3.1** Consistent standards for charging connections based on European CCS2 and CHAdeMO for DC fast chargers and Type 2 for AC charging. These provisions aim to provide universal charging facilities, with necessary provisions made for the adaption of the proposed infrastructure to cater for all types of EVs and connecting plugs; and
- 7.3.2** A range of charge rates will be considered to satisfy a range of charging needs from 22kW AC to high-speed DC chargers; and
- 7.3.3** Charging cables shall have the capacity to cater for EVs with front, rear or side charging points, and appropriate cable management solutions to address and prevent hazard for people utilising the chargers, pedestrians, passers-by, or other vehicles at any given time; and
- 7.3.4** Anti-vandalism solutions to protect EV chargers and their components, particularly charging leads and screens; and
- 7.3.5** Preference for connected and smart EV chargers that allow the most efficient energy use for both consumers and network operators, as well as remote (cloud-based), live monitoring of the usage of the EV chargers through user friendly software with data usage data made available to Council free of charge; and
- 7.3.6** Load management smart system to manage power supply and demand per location as appropriate.

The provisions and requirements under this item may be altered where future EV charging infrastructure technology supersedes the minimum criteria covered in these Guidelines, particularly if smarter and more sustainable alternatives are demonstrated to be suitable to the satisfaction of Council.

8 ENVIRONMENTAL CONSIDERATIONS

To support Council's endorsed net zero 2035 operational and 2050 community emission reduction targets, Council installed and managed EV charger will use only renewable energy or purchased accredited GreenPower, wherever practical.

Preference will be given to applications from third party providers proposing to use renewable energy or purchased GreenPower to power EV chargers on public land. Demonstration of this ongoing power or offset registration must be submitted to Council annually and include total tonnes of CO₂ equivalent.

9 GUIDELINES REVIEW

The Guidelines will be reviewed every two years to ensure relevant industry and regulation changes are addressed.

REFERENCES & RESOURCES

- AS/NZS 2890 (Set) Parking Facilities
- AS/NZS 1158 Lighting for Public Roads and Public Spaces
- AS/NZS 3000 Electrical Installations
- AS/NZS 1742 (Set) Manual of Uniform Traffic Control Devices
- AS/NZS 60079.10.1 Explosive gas atmospheres
- Austroads Guidelines for Low and Zero Emission Vehicle Charging Infrastructure Installation
- Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling
- Department of Climate Change, Energy the Environment and Water, 2024, Reducing Transport emissions
- [Department of Planning and Environment Fact Sheet: Electric Vehicles](#)
- Electric Vehicle Council (2025) 2024 sets new record for EV sales in Australia
- Infrastructure NSW (2022) State Infrastructure Strategy 2022 - 2042
- International Energy Agency (2020) Global EV Outlook 2020
- International Energy Agency (2024) Global EV Outlook 2024 – Trends in electric cars
- NSW Government (2021) NSW Electric Vehicle Strategy
- Transport for NSW (2019) NSW Electric and Hybrid Vehicle Plan
- University of Melbourne (2020) Electric Vehicle Charging: A review of consumer preferences and behaviours
- U.S. Access Board (2023) Design Recommendations for Accessible Electric Vehicle Charging Stations



Shellharbour City Council
Dharawal Country
76 Cygnet Avenue, Shellharbour City Centre NSW 2529

Telephone: (02) 4221 6111
Email: council@shellharbour.nsw.gov.au

shellharbour.nsw.gov.au

