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Department of **Planning, Lands and Heritage**

GOVERNMENT OF WESTERN AUSTRALIA

Western Australian Planning Commission

draft Position Statement:

Electric Vehicle Charging Infrastructure

June 2023

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1. Policy Intent

This position statement outlines how electric vehicle charging infrastructure should be considered and assessed in the Western Australian planning system.

2. Electric vehicle charging infrastructure in Western Australia

The State Government released the State Climate Policy and State Electric Vehicle Strategy in November 2020 to prepare for the transition to low and zero-emission vehicles and maximise economic, social and environmental benefits to our State. A priority area of action in the strategy is to implement and facilitate the provision of Electrical Vehicle (EV) infrastructure including charging stations.

The role of planning in implementing EV charging infrastructure across the State is to provide guidance in respect of appropriate locations, development standards for various land uses, and to facilitate timely delivery of infrastructure to ensure an efficient EV charging network across the State.

The increased electrification of vehicles will assist in reducing greenhouse gas emissions, as well as improve air quality, amenity, and provide potential electricity grid benefits for the community.

2.1 Electric vehicle charging infrastructure types

There are broadly three levels of charging power: Level 1 (general power outlet), Level 2 (alternating current - AC charging) and Level 3 (direct current - DC charging).

Level 1 General power outlet: a place in a wall to connect electrical equipment to the electricity supply, a common household socket/plug; standard 3-pin earthed power outlets in Australia. This is commonly known as trickle charging.

Level 2 AC-charger: the Federal Chamber of Automotive Industries de facto standard for EV charging in Australia. Includes most high-powered wall-chargers.

Level 3 DC-charger: supercharging and ultra-fast charging.

EV charging infrastructure can range from 2.3 kilowatts (kW) which typically takes more than 8 hours to fully charge an EV, through to >350kW chargers which can take less than 20 minutes. Estimated charge times also vary depending on factors including the type of charger and plug, make of vehicle, battery and technology specifications.

It is acknowledged that EVs and charging infrastructure technology continues to evolve at a rapid pace, with new capabilities and improvements introduced regularly. Local governments should consider this when establishing any minimum requirements for charging infrastructure (levels) in the planning framework, including local planning schemes and local planning policies.

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With increases in demand for EV charging infrastructure and the known peaks of the electricity network, smart charging infrastructure that is capable of being remotely managed (through connection to the internet and compatible with Open Charge Point Protocol 1.6; and tariffs for idle customers) will be increasingly more important and are recommended.

3. Application of this position statement

This position statement applies across Western Australia and provides general guidance to local government in the preparation of local planning policies with respect to EV charging infrastructure. Policy measures should also be considered in the preparation and assessment throughout all levels of planning, including strategies, schemes, structure plans and development applications.

This position statement applies to new proposals or significant redevelopment and is not intended to apply retrospectively.

4. Policy Objectives

This position statement seeks to achieve the following objectives:

- coordinate the approach of planning decision-making for the provision of EV charging infrastructure throughout Western Australia
- establish recommended planning requirements and guidance relating to installation of EV charging infrastructure in respect of appropriate zonings, land uses, amenity and locations
- enable safe, timely and efficient roll-out of EV charging infrastructure in support of the State Electric Vehicle Strategy and Western Australian Climate Policy
- to recommend certain EV charging infrastructure proposals being exempt from requiring planning approval.

5. Policy measures

5.1 EV charging infrastructure considerations

When considering planning for the installation of publicly available EV charging infrastructure, proponents/ providers and decision makers should consider the broader EV charging network to ensure that strategic and coordinated outcomes are achieved across the State, and the policy measures below.

In recognition of EVs being an emerging and fast-moving industry, innovative and alternative solutions for the provision of EV charging infrastructure may be proposed in place of recommended requirements within this position statement and any adopted local planning policy.

5.1.1 Location (Level 2 and above)

There are recognised benefits of EV fast charging infrastructure provided at the following preferred locations:

- Destinations: such as activity centres, beaches, food and entertainment precincts and civic centres
- Along major transport routes, preferably freeway service centres and road houses offering a level of amenity and convenience
- Regional areas, prioritising locations that contributes to the EV fast charging infrastructure network

- Public buildings: such as government office accommodation, hospitals, educational establishments, civic and sports facilities.

When preparing or reviewing local planning strategies and structure plans, local governments and proponents should consider identifying opportunities for community charging facilities (e.g. batteries) and public EV charging infrastructure, including the above preferred locations.

It is acknowledged that in certain locations, broader network upgrades may be required to support fast charging infrastructure. The availability of power in the locality to support the installation of EV charging infrastructure should therefore be confirmed by the network provider for both on and off grid locations to support site selection.

Where publicly available EV charging infrastructure is located adjacent or in close proximity to residential and other sensitive land uses, high amenity impacts (such as bulky structures or excessive lighting) should be minimised.

5.1.2 Land use

With expectations that a large percentage of EV charging will occur at home, the availability of charging infrastructure in residential settings is vital. General power outlets in close proximity to car parking bays that are assigned and/or available to each residential dwelling are encouraged. Other places of over-night residence, including hotels, motels and tourist accommodation should consider providing EV charging infrastructure for guests/residents.

The provision of facilities for electric vehicle charging equipment throughout car parking areas of new multi-storey developments in accordance with the requirements of the National Construction Codes (NCC) is recommended, including buildings/structures where these NCC requirements are not yet mandatory. Future-proofing the car parking areas of these structures and ensuring that buildings have capacity to support EV charging, will enable more straightforward implementation of EV charging infrastructure when demand arises or increases. The ability to charge EVs during day/work hours at large-scale places of residence and employment, particularly where solar energy is available, will also assist in reducing the evening electricity peak.

A summary of recommended EV charging infrastructure requirements and ratios by land use is outlined in **Table 1**. Proponents and decision-makers of new proposals or significant redevelopment containing these land uses are encouraged to consider providing EV charging infrastructure to align with these ratios and requirements, and local governments may use this table to guide any relevant local planning policies.

Futureproofing is particularly important for new residential and commercial developments such as multi-storey apartments, office buildings, stand-alone car parks and shopping centres, as retrofitting to accommodate EV charging infrastructure, is challenging.

5.1.3 Movement networks and safety

Vehicle and pedestrian safety and sight lines must be maintained, and EV charging infrastructure should allow for clear and safe movement of pedestrians, bicycles, and vehicles.

Certain land uses such as fast-food outlet/ lunch bars and service stations can create queuing during peak periods. As such, the potential traffic impacts of charging should be considered, including the assessment of vehicle queuing and traffic movement in and around surrounding Regional and Distributor A roads. In some cases, a Transport Impact Assessment may be required.

In determining the location for installation of EV charging infrastructure, including within a building or in close proximity to other structures, consideration should be given to minimise damage and/or potential secondary impacts in emergency situations. This may include bays that are easily accessible to emergency equipment and vehicles, and further away from significant infrastructure and emergency exits.

5.1.4 Wayfinding

EV charging infrastructure should be easily identifiable. Identification and/or signage should include directional signs and bay markings, especially where bays are located within a larger car park and/or not immediately visible from entry and exit points.

Traffic flow and accessibility requirements, ease of connection to existing onsite electricity points, clear identification of EV charging bays and proximity to car park entrances, should be prioritised over locations in close proximity to internal building entrances.

5.1.5 Amenity

The impact of EV charging infrastructure on the quality of the public realm, and existing amenity of surrounding areas, including residential and sensitive land uses, should be minimised. Proponents should be cognisant of potential amenity impacts such as:

- Light pollution.
- Noise.
- Views and landscape values.
- Unnecessary, excessive, and/or third-party advertising.

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5.2 Exemptions from the requirement for development approval

In accordance with the *Planning and Development (Local Planning Schemes) Regulations 2015* (the Regulations), installation of certain infrastructure does not require development approval. This includes:

- All EV charging infrastructure associated with single house, grouped and multiple dwellings for private use.
- All EV charging infrastructure contained within a building/structure.
- The installation of electrical conduits and other unobtrusive facilities for electric vehicle charging equipment.
- EV charging infrastructure that is specified in a local planning policy as not requiring development approval.

Where EV charging infrastructure can be considered incidental and unobtrusive, planning decision-makers should not require development approval.
As such, local governments can adopt a local planning policy to provide for further exemptions to the requirement for development approval.
The exemptions may be applicable where it is demonstrated that certain criteria are met, such being incidental to the predominant use of the land, as not impeding sight lines and low illumination. This will minimise the potential for land use conflicts and amenity impact from EV charging infrastructure.

6. Other matters

6.1 Local planning policy

Local governments may consider adopting a local planning policy to:

- Introduce the requirement to provide EV charging infrastructure when certain land use and development is proposed;
- Specify the EV charging infrastructure development and works that are exempt from the requirement to obtain development approval, pursuant to Schedule 2, Part 7, Clause 61(1) of the Regulations; and
- Outline the planning considerations for determining EV charging infrastructure applications.

A level of discretion should be provided for in any local planning policy, as the EV industry is fast-changing, and there may be variances in grid capacity which affect the ability to provide a certain level, or number of chargers.

6.1.1 Provisioning ratios

To encourage the provision of EV charging infrastructure, local governments may consider setting out provisioning ratios for certain land uses. Recommended levels of provision for a number of land uses have been provided in Table 1.

6.1.2 Development applications

Local government can introduce exemptions to the requirement for development approval through the adoption of a local planning policy.

Local governments are encouraged to consider local planning policy provisions that exempt unobtrusive EV charging infrastructure from requiring development approval. This may include where such infrastructure that is considered incidental to the predominant use of the site, and/or complies with the land use, movement network and safety, wayfinding, and amenity considerations. Examples are outlined in Section 5.1.

In addition, where a development application is required, the local government may set out specific considerations in a local planning policy.

6.2 Applications for development approval

Proponents seeking to install EV charging infrastructure should engage with the relevant local government and/or State Government as part of the site selection process. This early engagement will allow the decision maker to assess if the site (and location within the site) being proposed is appropriate, how it might relate to the EV charging network more broadly and determine if development approval is required.

6.3 Building permit requirements

Building permits are generally not required for the installation of electrical appliances as those processes are regulated by electrical standards. However, the relevant permit authority should be consulted about the need for a building permit if the installation process involves alterations to an existing building which could affect the way in which the building or incidental structure complies with each applicable building standard that applies to the building or incidental structure.

It is noted that Part J9 of the NCC sets out provisions that enable the monitoring of energy use and facilitate easy retrofit of renewable energy and EV charging equipment.

6.4 Public works

The *Public Works Act 1902* is available on the State Law Publisher's website and defines what constitutes a public work. Certain land use and development (works) may be considered "public works". Further guidance is available at - Approvals and exemptions for public works.

Where there is no public works exemption and the proposed EV charging infrastructure is within a reserve, it is recommended that proponents liaise with the relevant local government and/

or reserve management body, and the Department of Planning, Lands and Heritage (Land Use Management).

6.5 Operation

To ensure that EV charging infrastructure remains operational and provides the level of service as intended, publicly available EV charging infrastructure should clearly display the contact details of the provider and/or responsible party. This will allow for ease of reporting if the infrastructure becomes faulty or inoperable.

6.6 Local parking considerations

Where necessary, the local government may resolve to expand on its local laws to ensure that its public EV charging infrastructure and bays are utilised as intended. This may include consideration of charging/parking time limits, no-parking for non-EVs, and EVs not utilising the charging facility.

Definitions / Abbreviations

Electric vehicle (EV)	means a battery electric vehicle, plug-in hybrid electric vehicle, or a fuel cell electric vehicle.	
EV charging infrastructure	any outlet that provides electricity including general power outlets to charging stations that provides electrical currents to charge the battery in an electric vehicle.	
EV charging bay	a parking bay that is serviced by EV charging infrastructure and is identified for EV charging.	
Facilities for electric vehicle charging equipment	As per Part J9 of the National Construction Code (NCC)	
Level 1	General power outlet / Wall socket – a place in a wall to connect electrical equipment to the electricity supply, a common household socket/plug; standard 3-pin earthed power outlets in Australia. Level 1; trickle charging	
Level 2 or greater	Alternating current charging (AC) - an apparatus or facility with one or more electrical outlets for recharging the batteries of electric vehicles through an alternate current. Level 2; fast charging.	Direct current charging (DC) - an apparatus or facility with one or more electrical outlets for recharging the batteries of electric vehicles through direct current. Level 3; fast or rapid charging.
The Regulations	Means the *Planning and Development (Local Planning Schemes) Regulations 2015* prepared under the *Planning and Development Act 2005*.	

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TABLE 1

Electric vehicle charging infrastructure – recommended provisioning ratios

Where EV charging infrastructure is not considered 'preferred', it is otherwise encouraged or accepted.

Notwithstanding the recommended levels of provision outlined in Table 1, the following variations to the 'preferred requirements should apply:

- Where the electrical grid capacity or availability is constrained, or in other extenuating circumstances where it can be demonstrated that an alternative level of infrastructure is appropriate, discretion to the preferred requirement may be applied.
- Where alternative and/or innovative solutions are provided for in multi-storey developments (including car parks and apartments), discretion to the preferred requirement may be applied.

Requirements
Preferred
Encouraged

Land use	EV charging infrastructure (minimum level of provision)[1]
bed and breakfast	Level 1 – one communal bay
caravan park	Level 1 – one bay per powered site Level 1 – 50% of communal bays
caretaker's dwelling	Level 1 – one per dwelling
car park[2] where >50 bays	Level 2 – 2% of bays
exhibition centre where >200 people accommodated * *excludes open air cinemas*	Level 2 – 2% of bays with a minimum of one bay
exhibition centre where >1,000m^2 floorspace *	Level 2 – 2% of bays with a minimum of one bay
club premises	Encouraged
community purpose	Encouraged
exhibition centre where >1,500m^2 floorspace *	Level 2 – 2% of bays with a minimum of one bay
freeway service centre	Level 2/3 – four bays
holiday accommodation	Level 1 – to each bay
holiday house	Level 1 – one per dwelling
hospital	Encouraged
hotel	Level 1 – to each bay assigned for hotel guest use; and Level 2 – 2% of bays where communal parking (including associated bar/ restaurant/hospitality areas) is available with a minimum of one bay
medical centre	Encouraged

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Land use	EV charging infrastructure (minimum level of provision)[1]
motel	Level 1 – to each bay assigned for motel guest use; and Level 2 – 2% of bays where communal parking (including associated bar/ restaurant/hospitality areas) is available with a minimum of one bay
office[2]	Encouraged
park home park	Level 1 – one per site
recreation – private where >1,500m^2 floorspace *	Level 2 – 2% of bays with a minimum of one bay
restaurant/cafe	Encouraged
road house	Level 2/3 – two bays
serviced apartment	Level 1 – one per dwelling
service station	Encouraged
shop[2] where >1,500m^2 floorspace *	Level 2 – one bay per 10,000m^2, with a minimum of 2 bays *i.e 5,001-10,000m^2 = 2 EV bays* *10,001-20,000m^2 = 2 EV bays* *20,001-30,000m^2 = 3 EV bays* *100,001-110,000m^2 = 11 EV bays*
tourist development	Level 1 – to 50% of bays assigned for guest use
residential *single house* *grouped dwelling* *multiple dwelling* *single bedroom dwelling* *aged and dependents dwelling*	Level 1 – to each parking bay assigned to a dwelling

Table 1: Recommended EV Charging Infrastructure requirements by land use

[1] Minimum level of provision
The level of provision in Table 1 should be credited towards the general car parking requirement for the relevant land use/ development and should only apply where a general car parking requirement applies.

[2] Multi-storey developments
Where the new development or redevelopment/expansion is an 'office', 'shop*' or 'car park' land use, or mixed-use development, and the development is multi-storey, it is recommended that provisions in J9 of the National Construction Code be considered.

* Minimum threshold
The threshold at which EV charging infrastructure is deemed 'preferred'. For any proposal beneath the floor space threshold, EV charging infrastructure is encouraged.