GOVERNMENT OF WESTERN AUSTRALIA

Department of **Planning, Lands and Heritage**

Western Australian Planning Commission

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Position Statement:

Electric Vehicle Charging Infrastructure

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1. Policy intent

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

2. Electric vehicle charging infrastructure in Western Australia

The National Electric Vehicle Strategy 2023 sets a vision to increase the uptake of EVs to reduce emissions and improve the wellbeing of Australians. This includes objectives and initiatives which relate to establishing infrastructure and making it easy to charge.

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 Western Australia. A priority area of action in the strategy is to implement and facilitate the provision of EV infrastructure, including the charging stations.

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

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. This is commonly known as trickle charging.

Level 2 AC-charger: Dedicated chargers with their own plug or socket. Includes most high-powered wall-chargers.

Level 3 DC-charger: Supercharging and ultra-fast direct current 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 greater than 350kW chargers that 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 continue 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.

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 includes features for managing tariffs for idle customers) will be increasingly more important and is recommended.

3. Application of this policy

This position statement applies across Western Australia and provides general guidance to local governments 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.

This position statement will be reviewed and revised as policies and standards are updated.

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 for the installation of EV charging infrastructure, including appropriate zonings, land uses, amenity and locations
- enable the 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 specific EV charging infrastructure proposals be exempt from the requirement for 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, prioritising regional freeway service centres and roadhouses offering a level of amenity and convenience
- regional areas, prioritising locations that complement or contribute 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/public charging facilities at the above preferred locations, as well as opportunities for Energy Storage Facilities (large-scale batteries).

On-street (kerbside) charging should be considered in areas subject to minimal on-site parking such as older established suburbs, or areas with high volumes of apartments. In determining appropriate locations for on-street charging infrastructure, local governments should liaise with service providers and consider factors such as electrical capacity, safety, lighting and amenity. Additionally, the potential impact on the road, pedestrian and bicycle paths, existing parking restrictions, and demand should be evaluated.

It is acknowledged that in certain locations, broader network upgrades may be required to support fast charging infrastructure. The network provider should confirm the availability of power in the locality, whether from the grid or off-grid sources, to support the selection of sites for EV charging infrastructure installation.

Where publicly available EV charging infrastructure is located adjacent or in close proximity to residential and other sensitive land uses, particularly on-street parking options, minimal visual impacts should be ensured, such as avoiding bulky structures or excessive lighting.

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 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 EV charging equipment in car parking areas of new multi-storey development, in accordance with the requirements of the National Construction Codes (NCC), is recommended, including for buildings/structures where NCC requirements are not yet mandatory. Future-proofing the car parking areas of these structures and ensuring that buildings have the capacity to support EV charging will enable easier implementation of EV charging infrastructure when demand arises or increases. Charging 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.

Recommended EV charging infrastructure requirements and ratios by land use are 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, can be 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 lead to queuing during peak periods. As such, the potential traffic impacts of EV charging should be considered, including the assessment of vehicle queuing and traffic movement around nearby Regional and Distributor A roads. In some cases, a Transport Impact Assessment may be necessary.

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.

While the risk of crime can be influenced by a range of factors and cannot simply be prevented through well designed places alone, Crime Prevention Through Environmental Design (CPTED) is an important tool with proven benefits. Therefore, local governments can use the WAPC's Safer Places by Design Guidelines to enhance safety by minimising crime and fear of crime.

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 consider potential amenity impacts such as:

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

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 and grouped 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 approvall.

Where EV charging infrastructure is considered incidental and unobtrusive, planning decision-makers should not require development approval. In addition, local governments can adopt a local planning policy to provide for further exemptions to the requirement for development approval. The exemptions may apply when certain criteria are met, such as being incidental to the predominant use of the land, not obstructing sight lines and emitting 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 types of 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 matters considered when 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 establishing 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 governments are encouraged to introduce exemptions to the requirement for development approval through the adoption of a local planning policy.

These exemptions may apply to unobtrusive EV charging infrastructure where it 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.

For EV charging infrastructure greater than Level 2, proponents should also consult with the applicable energy providers to ascertain the grid capacity and/or any other infrastructure requirements.

In the case of significant batteries and energy storage facilities or retrofitting of multiple dwellings, the Department of Fire and Emergency Services should be consulted to ensure that safety considerations are identified.

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, proponents will be required to 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 the continued operation of EV charging infrastructure and to facilitate easy reporting of faults or inoperability, publicly available EV charging infrastructure should prominently display the contact details of the provider and/or responsible party.

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, including on-street parking are utilised as intended. In this regard, it is recommended that parking restrictions should match the expected dwell time at the site time required to obtain a reasonable charge from the level of charger provided. 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 (AC) charging – 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 (DC) charging – 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*.

TABLE 1

Electric vehicle charging infrastructure – recommended provisioning ratios

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

Notwithstanding levels of provision outlined in Table 1, the following variations to 'preferred' requirements 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
cinema/theatre where >200 people accommodated * *excludes open air cinemas*	Level 2 – 2% of bays with a minimum of one bay
civic use 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

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.