PUBLIC EV CHARGING INFRASTRUCTURE IN THE ACT
KEY RECOMMENDATIONS OF THE
ACT BRANCH OF THE AUSTRALIAN ELECTRIC VEHICLE ASSOCIATION
VERSION: 18 MARCH 2025

INTRODUCTION

This statement is a revised version of statements issued previously by the Australian Electric Vehicle Association (AEVA) ACT Branch since January 2021. The current revision includes a detailed recommendation on disability access. It also further limits recommended requirements for the CHAdeMO charging standard.

PRINCIPLES

The recommendations are based on two key principles for public charging infrastructure:

1. EV charging infrastructure requires three classes of charging facilities to cater for different situations. They are (i) slow, private home and workplace charging, (ii) slow- to medium-speed destination charging at locations such as hotels, caravan parks, shopping centres and tourist destinations, and (iii) public fast charging stations as found at highway service centres.
2. Site selection must consider the typical dwell time at that location. Sites such as shopping centres and tourist destinations can provide slower charging suited to the duration of a typical stay, whereas locations catering to long-distance travellers should provide very fast charging.

KEY RECOMMENDATIONS

[1] There should be a mix of DC fast charging (50kW+) and slower type 2 (IEC 62196-2) AC charging (typically 7-11kW). Intermediate speeds such as 25kW DC could be considered. Some locations will be most appropriate for fewer, expensive, DC chargers while other locations would favour a much larger number of cheaper, slower AC charging points.
[2] Charging infrastructure should be available 24 hours per day, 7 days a week. Sites should have signs giving directions to the chargers, be well lit and be located in populated areas to improve safety.
[3] Public charging infrastructure must be inclusive for all and be fully accessible to people with a disability. In lieu of an Australian Standard, the Royal Automobile Association of South Australia (RAA) *Design Guidelines for Accessible EV Charging Stations* should be adopted in the interim. Key requirements include:

- providing circulation space along one side and the front of **one** accessible charging bay per station;
- not using wheel stops in accessible charging bays;
- thoughtful placement of bollards to protect chargers but not restrict access; and
- signage (“Priority Bay Use Last”) to keep accessible charging bays available to those who need them.

[4] Charging points should be located near amenities such as toilets and food outlets.
[5] Each of the seven Canberra town centres (North Canberra/Civic, South Canberra, Woden, Belconnen, Weston Creek/Molonglo, Tuggeranong and Gungahlin) should have at least eight DC fast charging plugs, distributed across at least two sites to provide geographic coverage and resilience in the event of a power outage.

[6] All DC fast chargers should support the CCS2 standard. New chargers supporting CHAdeMO are not required, but existing CHAdeMO chargers must be maintained to support legacy vehicles.

[7] Charging sites should cater for a wide range of EVs: not just cars, but also vehicles such as motorbikes, electrically-assisted bicycles and electric scooters.

- A few standard power points alongside car charging outlets would meet the needs of electric bicycle users. They would also be a back-up of last resort for electric cars in case of charger outages because they could be used with a driver's portable EVSE charge cord.

[8] There should be at least eight public fast DC charging plugs and multiple AC charging points in the zone bounded by the National Library of Australia, the National Gallery of Australia, and Australian Parliament House.

- Visitors to the institutions and workers in this area are likely to be away from their vehicles for several hours so the provision should favour a larger number of slower chargers.

[9] Type 2 AC charging points should be provided at major shopping centres and popular entertainment and restaurant precincts, with multiple charging points at each location.

[10] 'Park and Ride' and other long-stay car parks are also ideal locations for large banks of AC charging points. Slower charging does not matter if a vehicle is parked for many hours; it is better to have plenty of charging points.

- A limited available supply capacity at a site (say 150kW) would not preclude installing, say, fifty 7kW AC charging points. Charging points can be networked to share the maximum available power. With every charging point in use, each would provide only 3kW, but they would provide a vehicle with 7kW when 20 or fewer (of the 50) are in use.
- Slow charging through the day would provide a means to absorb local rooftop solar production. It would be even better if the car park includes a solar PV canopy.
- Park and Ride locations could also feature demand management, being slowed at times of high demand on the electricity grid. A minimum charge of (say) 12kWh in an 8-hour period could be guaranteed. This would be provided if the EVSEs were turned down to the minimum charge rate of 6A (1.5kW).

[11] Canberra hotels, motels, caravan parks and other accommodation providers should provide parking spaces that support overnight charging by guests, preferably via type 2 charging points but even trickle charging on ordinary 10A or 15A power points using the driver's portable charge cord is sufficient.

- This will reduce demand on public charging, particularly in peak periods. 7kW wall-mounted EVSEs are enough to ensure almost any EV can be recharged overnight.
- Even an ordinary 10A power point can add 150 km of range overnight.

[12] DC fast chargers should be installed at 'weekend excursion' locations and on major routes into Canberra.

[13] It should be possible for drivers to pay for charging using a credit card. A proprietary app or RFID card should not be the only payment method.

[14] Charging point providers must demonstrate high availability (e.g. 98%) and prompt restoration.

[15] The pricing model should discourage charging for longer than 30 minutes at DC chargers.

- Some providers charge by both time and energy (kWh) while others have a penalty for idle time after charging has ceased.

[16] Type 2 AC charging points could use tethered cables with plugs or require 'bring your own' (BYO) cables, perhaps depending on the location.

- The former are more convenient for the majority of cars but the plug and cable are more susceptible to damage or vandalism.
- EV drivers should carry a BYO cable with the appropriate type 1 or type 2 plug for their vehicle to enable them to use charging points that require a BYO cable. Cars generally have an option to keep the cable locked when charging ceases to prevent theft of the cable.
- A small minority of older EVs have type 1 sockets, but these can use a tethered type 2 cable via an adapter that drivers keep in their EV.

CONTACT DETAILS

This list of recommendations was prepared by the ACT Branch of the Australian Electric Vehicle Association (AEVA).

It is available from our website at https://act.aeva.asn.au/

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