

Office of Energy and Climate Change

# EV kerbside charging for local government



September 2023







**Acknowledgment of Country** Office of Energy and Climate Change as part of the Treasury cluster acknowledges the Traditional Owners and Custodians of the land on which we live and work and pays respect to Elders past, present and future.

**Published by** Office of Energy and Climate Change, NSW Treasury

**Title** EV kerbside charging for local government

**First Published** September 2023

**Copyright** This publication is protected by copyright. With the exception of (a) any coat of arms, logo, trade mark or other branding; (b) any third party intellectual property; and (c) personal information such as photographs of people, this publication is licensed under the Creative Commons Attribution 3.0 Australia Licence. The licence terms are available at the Creative Commons website at: [creativecommons.org/licenses/by/3.0/au/legalcode](https://creativecommons.org/licenses/by/3.0/au/legalcode) NSW Treasury requires that it be attributed as creator of the licensed material in the following manner: © State of New South Wales (NSW Treasury), (2023)

**Permission to use** Subject to the Creative Commons Attribution 3.0 Australia Licence, you may copy, distribute, display, download and otherwise freely deal with this publication for any purpose provided you attribute the Office of Energy and Climate Change and/or NSW Treasury as the owner. However, you must obtain permission if you wish to charge others for access to the publication (other than at cost); include the publication in advertising or a product for sale; modify the publication; or republish the publication on a website. You may freely link to the publication on a departmental website.

**Disclaimer** The information contained in this publication is based on knowledge and understanding at the time of writing (August 2023) and may not be accurate, current or complete. The State of New South Wales (including the Office of Energy and Climate Change and NSW Treasury), the author and the publisher take no responsibility, will accept no liability, for the accuracy, currency, reliability or correctness of any information included in the document (including material provided by third parties). Readers should make their own inquiries and rely on their own advice when making decisions related to material contained in this publication.

---

# Contents

<b>Overview</b>	<b>4</b>
NSW Government's EV Strategy	4
EV growth in Australia	4
Net zero	4
<b>About EV Kerbside Charging</b>	<b>5</b>
Kerbside chargers	5
NSW Government investment	5
Purpose	5
Determine ownership model	6
<b>Steps and Stakeholders</b>	<b>7</b>
Steps for local council	7
Stakeholders	7
<b>Part 1: Scoping</b>	<b>8</b>
Identify areas of need	8
Assess sites	8
Select charging solution	8
EV kerbside charger types	9
Determine parking restrictions	9
<b>Part 2: Approvals</b>	<b>10</b>
Planning approval	10
Roads Act approval	10
Traffic Committee approval	10
<b>Part 3: Implementation</b>	<b>11</b>
Procure chargers or charging services	11
Installation	11
Operation	11
Maintenance	11
EV kerbside charging for local government	3



---

# Overview

## NSW Government's EV Strategy

The NSW Government are investing \$633 million to drive uptake and reduce barriers for electric vehicle (EV) purchases.

The [NSW Government's EV Strategy](#) will drive uptake of EVs to more than 50% of new car sales by 2030-31, preparing the NSW road network for a low-emissions future. We are making NSW the easiest and most affordable place to buy and use an EV in Australia.

## EV growth in Australia

By July 2023, sales of EVs in Australia has risen to 8% of all new car sales. Car manufacturers are continuing to bring new EV models into Australia. This has been supported by an increase of EV charging infrastructure across the country.

## Net zero

Transport is one of the major contributors to greenhouse gas emissions. In NSW, the transport sector accounted for 20% of emissions in 2021, with 89% of this coming from passenger transport. Uptake and support for EVs is an important part of the NSW Government's goal to reach net zero emissions by 2050.



---

# About EV Kerbside Charging

## Kerbside chargers

We know most electric vehicle (EV) charging will be done at home. However, almost one in 3 drivers across NSW do not have access to off-street parking to charge an EV.

Kerbside chargers provide another option for EV drivers. They give residents with limited access to off-street parking a way to charge locally.

Kerbside chargers bring other benefits to the local area including such as local amenity by reducing air pollution and noise.

## NSW Government investment

NSW Government is investing \$10 million to support local governments and charge point operators (CPOs) to purchase and install EV kerbside chargers across metropolitan NSW.

The Drive electric NSW EV kerbside charging grants will grow the number of chargers in eligible local government areas (LGA) with the least access to private off-street parking.

## Purpose

This document is a step-by-step guide for councils looking to install or support the third party installation of public kerbside chargers. The steps provide an overview of the considerations for kerbside charging during various stages of the project, including:

- scoping
- approvals
- implementation.

We understand that every council is different. Information provided in this guide is intended to be general in nature. Councils are encouraged to use their own judgement for their individual circumstances.

# Determine ownership model

There are different ownership models for EV kerbside charging infrastructure.

Typical operational models are owned and operated by council or by a third party such as a charge point operator (CPO). Determining the right ownership and operational approach for your council will determine your charging solution.

The table below provides some considerations when determining an ownership model.

**Table 1** EV kerbside charging – ownership model considerations

Council	Third party (CPO)
More upfront costs	Less upfront costs
More operational control	Outsourced operational control
Cost for a maintenance partner	Outsourced maintenance
Control revenue model	Shared revenue model
Cost of customer support	Customer support
Internal resource and capability	Outsourced resource and capability

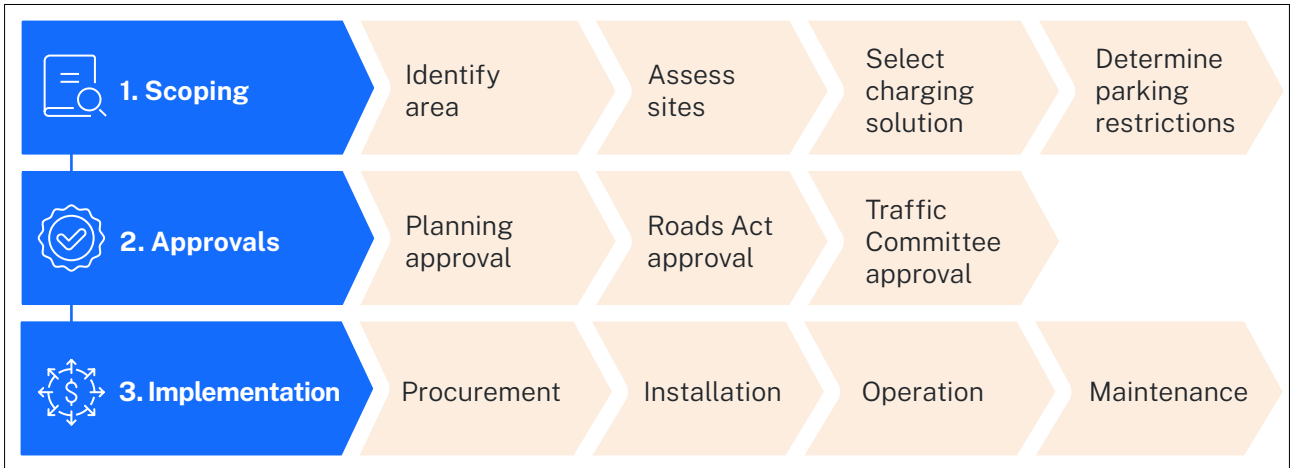


# Steps and stakeholders

## Steps for local council

There are multiple steps that should be considered in the installation of kerbside charging. These are shown below.

Figure 1 EV kerbside charging – steps for local council



## Stakeholders

Below is a summary of the possible stakeholders involved in the various phases of kerbside charger installation.

Figure 2 EV kerbside charging – possible stakeholders





---

# Part 1: Scoping

Scoping is important to make sure you have chosen the right site for your EV kerbside charger. There are key considerations you will need to address when choosing a site.

## Identify areas of need

Kerbside chargers provide a solution to EV charging for residents that have limited or no access to off-street parking. Generally, this will be in areas with terrace housing and apartment blocks that rely on their resident's parking on the street.

NSW Government provides resources that can help identify areas that need charging infrastructure – such as the [EV charger master plan map](#) and the [NSW EV kerbside charging grants map](#).

## Assess sites

Visit the area with an electrical contractor or charge point operator (CPO) to assess potential sites. Things that should be considered are:

- the electrical capacity
- lighting
- amenity
- potential impact on the road, footpath, or bike lanes

- speed limit – sites must be on roads with a speed limit of no more than 50 km/hour
- expected dwell times
- existing parking restrictions.

## Select charging solution

Selecting the type and capacity of a charger should be done in consultation with an electrical contractor or CPO. They will work to determine the electrical capacity at the site and apply to the relevant electricity supply authority for the necessary connections.

AC (7–22 kW) and lower powered DC chargers (24–50 kW) are typically the most suitable kerbside chargers due to expected dwell times in these areas.

The table below displays indicative charging rates for an average EV with a battery capacity of 60 kWh.

Table 2 Indicative charging rates for an average EV with a battery capacity of 60 kWh

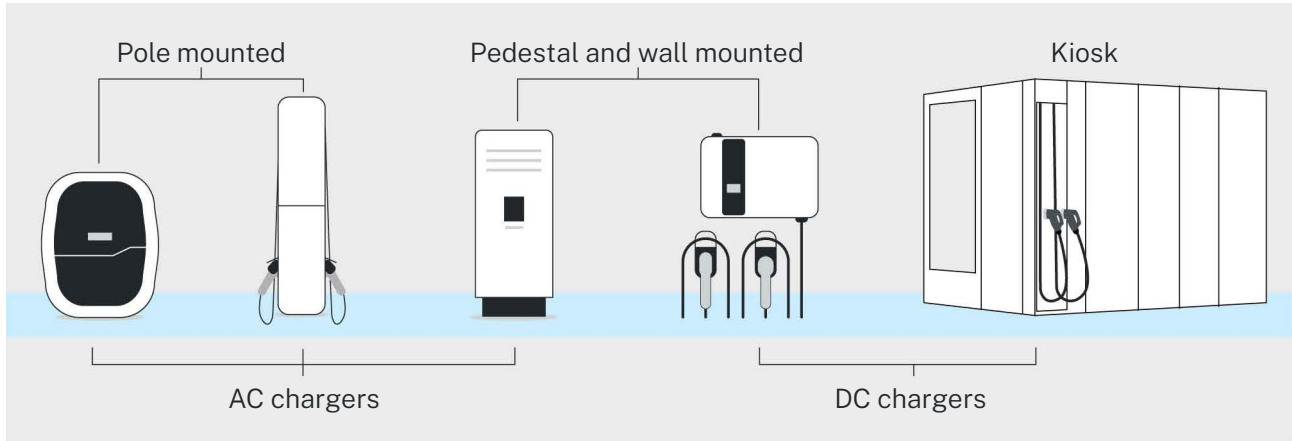
Charger capacity	km of range per hour	Hours for full charge
7 kW AC	40	8
22 kW AC (3-phase EVs only)	130	6
24 kW DC	150	2.6
50 kW DC	300	1.3



## EV kerbside charger types

There are many different charger designs to consider. These include kiosk chargers or pedestal chargers which are freestanding, or chargers that can be installed onto existing infrastructure (like power poles).

Figure 3 Some examples of kerbside charger types



## Determine parking restrictions

Parking restrictions should match the expected dwell time at the site, suit the capacity of the charger, and provide EV drivers enough time for a reasonable charge.

The updated [NSW Government 'EV only' parking signage](#) provides time restricted 'EV only' parking regulatory signs.

The procedures regarding enforcement of 'EV only' parking restrictions can be found in the [Road Rules 2014](#).

Image 1 Example street signage for EV parking



---

# Part 2: Approvals

## Planning approval

The planning approval pathways for EV chargers can be found in the [\*\*\*NSW State Environmental Planning Policy \(Transport and Infrastructure\) 2021\*\*\*](#) (SEPP).

The Department of Planning and Environment has developed an [\*\*\*EV charging fact sheet\*\*\*](#) which provides more information.

Council's planning department can advise on the correct planning pathway depending on the installation.

- Chargers installed in the road verge can be installed as development without consent ([\*\*\*Part 5 approvals pathway\*\*\*](#)).
- Chargers mounted on existing electricity or lighting poles can be installed as exempt development.

Refer to the SEPP for all requirements to meet exempt development or development without consent.

## Roads Act approval

While some works may be considered exempt development under the SEPP, this does not affect any obligations under the Roads Act.

Any works that occur in the road reserve (including the verge and footpath) will require approval from council under Section 138 of the [\*\*\*Roads Act 1993\*\*\*](#) (Roads Act).

## Traffic Committee approval

Any changes to parking restrictions must be approved through council's Traffic Committee. Council's traffic department can advise on what is required to obtain Traffic Committee approval.





---

# Part 3: Implementation

## Procure chargers or charging services

The NSW Government's [Electric Vehicle Fleet Charging Infrastructure Scheme](#) (scheme) covers the supply and installation of EV chargers and charging services.

Councils can use or adapt the scheme to fit their procurement guidelines (if council will own chargers) or in contracts or licensing agreements with CPOs (if CPO will own chargers).

Councils can also view current suppliers included on the scheme by logging in to [Supplier Hub](#) as a buyer.

The NSW Government has also partnered with the Electric Vehicle Council to develop an approved [EV charger and software list](#).<sup>1</sup>

## Installation

All kerbside charger installations must be completed by licensed electrical contractors in compliance with *AS/NZS 3000:2018 Electrical installations* and require a [Certificate of Compliance for Electrical Work](#) (CCEW).

If an EV charger is installed on council land, the electrical contractor must provide a copy of the CCEW to council upon completion of the works.

## Operation

Consideration should be given to the day to day running of EV chargers. Uptime of charging availability should be closely monitored. NSW Government recommends a minimum 99% uptime per year.

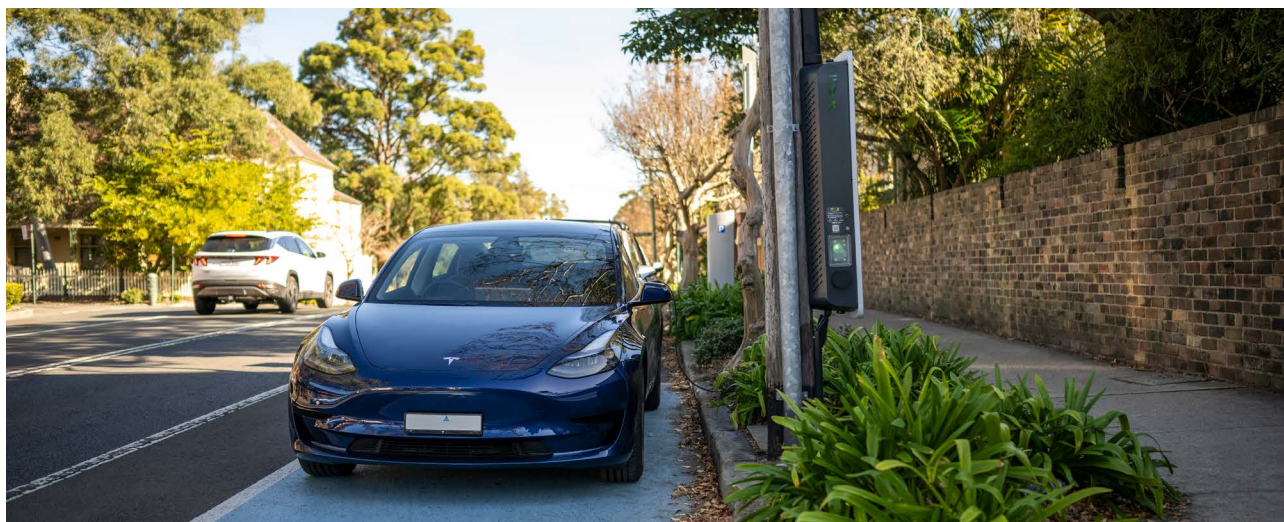
EV chargers need to have 24/7 customer support. A customer service plan should be developed with your CPO and/or software provider.

EV chargers should be publicly listed and discoverable. It is recommended that up-to-date charger information is provided to services like Google Maps and/or Plugshare.

## Maintenance

EV chargers should be checked and inspected regularly for damage and operational faults. The standards for maintenance of EV chargers are outlined in AS/NZS 3000:2018.

Councils may outsource maintenance contracts with their supplier, alternatively CPOs will have their own maintenance regimes.



1. The approved charger list currently includes AC chargers only.



# EV kerbside charging for local government



**For more information**

[www.energy.nsw.gov.au/electric-vehicle-kerbside](http://www.energy.nsw.gov.au/electric-vehicle-kerbside)

[electric.vehicles@environment.nsw.gov.au](mailto:electric.vehicles@environment.nsw.gov.au)