

NSW Office of Energy and Climate Change

Drive electric NSW EV fast charging

Site host prospectus

November 2022



energy.nsw.gov.au/ev

Published by NSW Office of Energy and Climate Change

energy.nsw.gov.au/ev

Title: Drive electric NSW EV fast charging

Subtitle: Site host prospectus

First Published: November 2022

ISBN: 978-1-922900-31-9

© State of New South Wales through Office of Energy and Climate Change 2022. 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 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 (November 2022) and may not be accurate, current or complete. The State of New South Wales (including the NSW Office of Energy and Climate Change), the author and the publisher take no responsibility, and 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

Who is this prospectus for?	4
The NSW Government's commitment to driving an EV revolution	6
Optimal zones for EV fast charging infrastructure	7
What type of EV charging is best suited to your site?	8
NSW needs site hosts for public EV fast charging	12
How sites benefit from hosting EV fast chargers	14
Site suitability	16
Parking spaces	17
EV charging site amenities	17
Electricity supply	18
Charger numbers at a site	18
Role responsibilities	19
How to get involved	20
Next steps	22





Who is this prospectus for?

The New South Wales (NSW) Government is co-funding an ultra-fast electric vehicle (EV) charging network across the state. **We're currently looking for land owners and lease holders** that might be interested in hosting EV charging stations, so that we may provide a list of possible sites to potential developers (Charge Point Operators). This prospectus provides information for NSW businesses, commercial property owners and managers, local governments and site operators and owners interested in hosting public electric vehicle (EV) fast charging. There must be a minimum of 4 parking spaces at your site/s to be eligible.

This prospectus provides information to help you understand:



What the Government is doing to boost uptake of EVs in New South Wales.



Where public EV chargers are needed.



What EV drivers want while charging.



Why hosting public EV fast chargers in NSW could benefit your business and site.



What makes a site suitable for hosting public EV fast charging.



What you need to do as a host of public EV chargers.



How you can register your interest in hosting a site.



The NSW Government's commitment to driving an EV revolution

The NSW Government is leading the way in the race towards net zero emissions. Its [Net Zero Plan Stage 1: 2020-2030 \(Net Zero Plan\)](#) sets out the State's ambitious objective to deliver a 50% cut in emissions by 2030 compared to 2005 levels and achieve net zero by 2050.

The [NSW Electric Vehicle Strategy](#) (the strategy), is the NSW Government's \$633 million plan to accelerate the state's vehicle fleet of the future. Through the strategy, the NSW Government is targeting key areas to make the state the easiest place to buy and use an EV in Australia. The strategy is intended to increase EV sales to 52% of all new car sales by 2030-31 and help NSW achieve net-zero emissions by 2050.

The strategy prioritises guaranteed widespread EV charging across NSW, with a \$199 million investment to develop a world-class charging network. This investment will expand existing public fast charging across the state over the next 4 years.

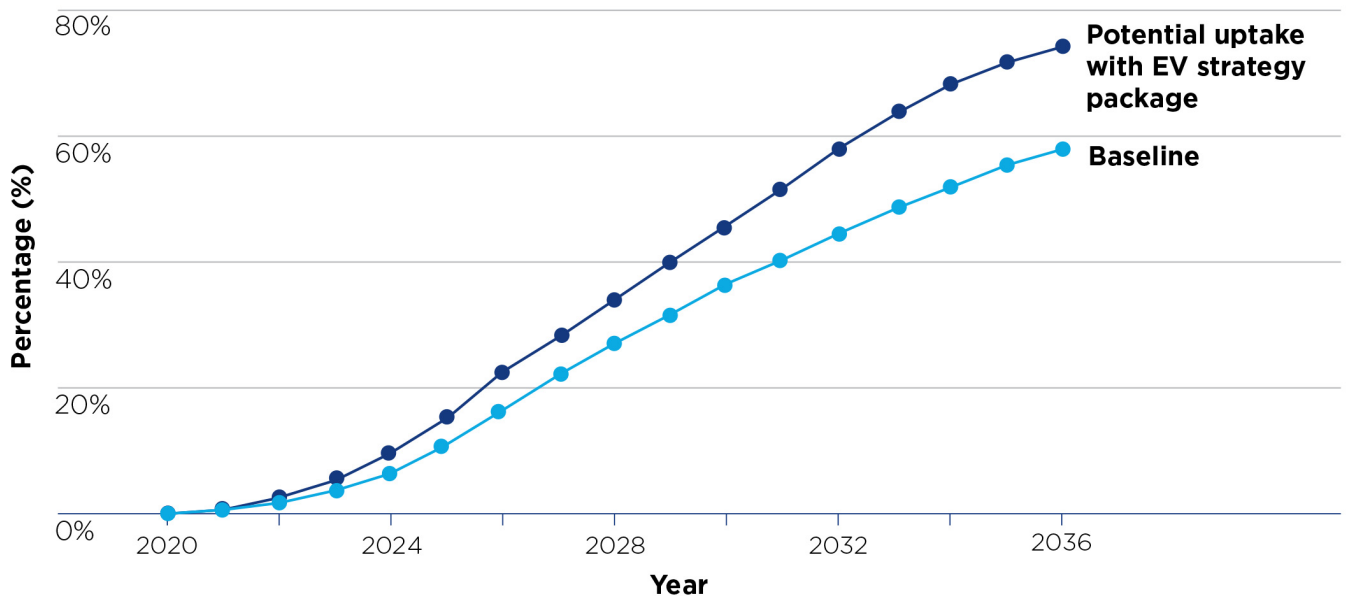


Figure 1
Expected uptake of EVs in NSW with the EV strategy package.

Optimal zones for EV fast charging infrastructure

Future suitable locations for fast charging infrastructure across NSW (referred to as optimal zones) have been identified in the [NSW electric vehicle fast charging master plan](#). The map includes different datasets, such as traffic counts, electrical infrastructure, major roads and existing EV fast and destination charging.

This map will help determine fast charging sites that will be prioritised by the NSW Government for funding over the next 4 years, as well as assisting industry with future site-planning. Even if your site is not within an optimal zone, it may be suitable to fill gaps in the network if no other fast charging sites in optimal zones have been identified, or if there are other amenities attractive to EV drivers in the area.



What type of EV charging is best suited to your site?

The NSW Government is co-funding the installation of EV destination and fast chargers at eligible locations across NSW.

Follow these steps to determine what type of EV charging is best suited to your site.



Understand what type of EV charger best suits your targeted visitor

To determine what type of EV charger you want to provide, consider what an EV driver is likely to do when they visit and recharge.

Do you want the driver to dwell a little longer, enjoy what's on offer, and explore the location? Or do you want to help them quickly recharge and be on their way?



Understand your budget and operating goals

Not only do EV chargers vary in their charging speed, the cost to purchase, install and operate each type also vary significantly. **For AC destination EV chargers**, operating costs are comparatively low, and you can choose if you want to charge fees for use or offer free charging.

A Level 2 charger can cost one to a few thousand dollars. Whereas an ultra-fast Level 3 charging station could cost anywhere up to \$1 million (these are typically built and operated by dedicated charge point operator companies) but can also be built/hosted at your site.



Select your charger type

There are various ways to charge an electric vehicle (Figure 2):

- a slower charge at home or work (Level 1)
- a slightly faster charge when visiting a destination (Level 2)
- an ultra-fast charge at a dedicated charging station (Level 3).

How quick a charging session is, depends on how the car itself is configured and the type of charger used.

Types of EV chargers

Level 1



AC slow charging ranging from 1.4 kW to 2.4 kW AC charging capability. This is the same as plugging into a regular power point at home or work. Ten km to 20 km range is added after being plugged in for an hour, which is why it is usually only done overnight to recharge the vehicle by 100 km to 300 km.

Level 2



AC fast charging ranging from 7 kW to 22 kW AC charging capability. This is a dedicated charger with its own plug or socket. This is faster than a Level 1 charger. Typically, 40 km to 100 km of range per hour is added, dependent on each individual car configuration.

Level 3



DC fast charging is the fastest charging option, ranging from 25 kW to 350 kW DC fast charging capability. This level charger can add 150 km range per hour at the lower end and a full charge at highest charging speeds in 15 minutes (depending on the charger size and car technology).

Figure 2

Types of electric vehicle charger.

Now that you have completed the steps outlined on page 9 and determined what type of EV charging is best suited to your location, choose your preferred NSW Government EV charging program below.



Is your site best suited to install a destination charger?

The EV destination charging grants are investing \$20 million, to support regional businesses and councils to attract the growing number of EV drivers travelling throughout NSW.

Visit our EV destination charging grants webpage for more details or to submit a funding application:

energy.nsw.gov.au/ev



Is your site best suited to host an ultra-fast charging station?

Continue reading this Site Host Prospectus to understand more about the EV fast charging grants and the steps to be considered for hosting an EV charging station at your location.





NSW needs site hosts for public EV fast charging

The majority of motorists in Australia consider the need for governments to provide public EV charging as an important priority for EV uptake.¹ There are currently 288 fast chargers in NSW, but at least 3,900 fast chargers are needed across NSW by 2031 to meet projected demand.

Guaranteed widespread public EV charging provides current and future EV drivers with the confidence they need to drive their vehicles whenever and wherever they need to. Under [the strategy](#), in many metropolitan neighbourhoods where residential off-street parking is not available, public EV fast charging will be available within a 5 km radius. Stations will also be provided at 100 km intervals across all major roads and highways in NSW. For commercial drivers including taxis and couriers, public EV fast charging will give them the confidence to complete a full day's operation in an EV.

Now is a great time for you to get involved! With the expected increase in EV ownership across NSW, your business could benefit from an increase in the EV drivers on our state's roads. This prospectus outlines why hosting public EV chargers could help attract more visitors and increase how long they spend at your site.

Find out how you can register your details to get involved in [How to get involved](#).

The NSW Government supports the development of public EV chargers. Site hosts interested in hosting public EV chargers can [express their interest online](#). When expressing interest, site hosts are allowing EV charging providers the opportunity to contact them regarding their site.

1. Electric Vehicle Council: electricvehiclecouncil.com.au/reports/state-of-electric-vehicles-2020/

How sites benefit from hosting EV fast chargers

1. More visitors to your site

The biggest benefit of hosting EV fast chargers is attracting more customers. As more drivers purchase EVs, the availability of an EV charger is likely to determine where they stop. Locations without public EV fast charging may be bypassed by drivers in favour of locations offering charging.

2. Visitors spend more time at your site

EV drivers typically spend between 15 minutes to an hour charging vehicles at public EV fast chargers. While their vehicle is charging, many drivers and passengers want to get something to eat, go for a walk, visit shops and give children and pets some fresh air at nearby playgrounds and parks.

5. Be part of the EV-olution

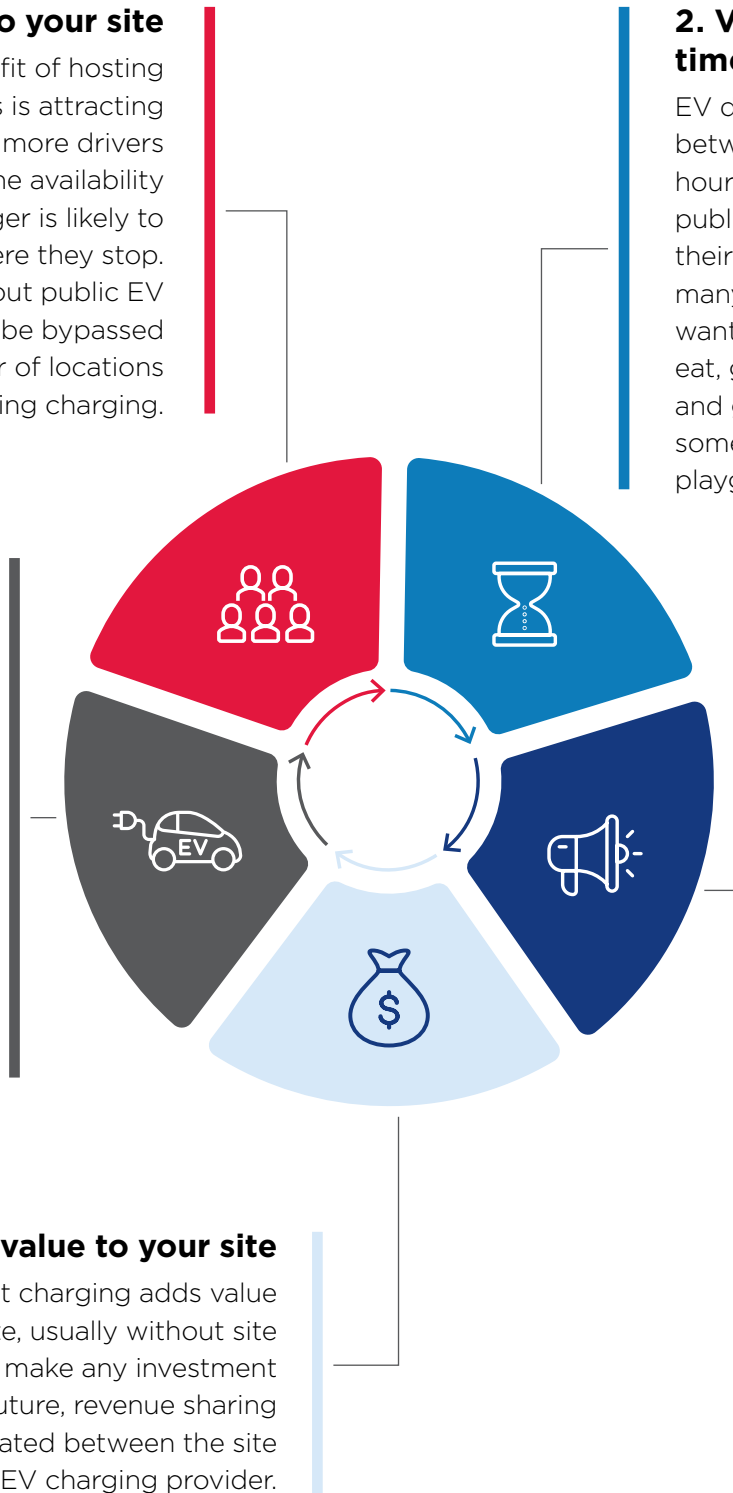
Hosting EV charging shows motorists, customers, your tenants and community that your business or organisation are taking action to support new technologies and the environment.

4. Add value to your site

Hosting EV fast charging adds value to your site, usually without site owners having to make any investment themselves. In future, revenue sharing may be negotiated between the site owner and the EV charging provider.

3. Greater visibility

EV drivers typically use smartphone apps as well as in-car navigation systems to find sites with EV chargers.



CASE STUDY

Ross Holdings

Andrew Frost is the Commercial Property Manager at Ross Holdings in Auckland, New Zealand. His site is beside State Highway 1, south of Auckland, with tenants including fast-food outlets and cafes.

“Being a host for EV charging has added value to my site - my tenants have high performing stores and pay premium rental rates as a result,” says Frost.

It took 18 months from first discussions with a charging provider to having operational

chargers in place. Frost said he didn’t have to do anything once the site agreement was signed as everything was taken care of by the EV charging infrastructure provider.

Each charger is able to charge more than one vehicle at a time, encouraging more EV drivers to the site. The popularity of the ultra-fast EV chargers has exceeded Andrew’s expectations.

“EVs coming to my site gives me a competitive advantage over other close-by sites,” says Frost.



Image courtesy of ChargeNet NZ.
EV charging site Ross Holdings, Bombay New Zealand.



Site suitability

Parking spaces

In round 2 sites will need to provide a minimum of 4 adjacent parking spaces to host public EV fast charging or for some eligible sites a minimum number of 8 charging bays per station. Ideally, these spaces will be accessible to EV drivers 24 hours a day, 7 days a week.

It is important EV charging sites are well lit, with good security and visibility; especially for night charging. Make sure the site has mobile phone service as well to help EV drivers feel safe.

The parking spaces must be reserved for EV charging only, so drivers can park and start charging straight away. The EV charging spaces must be clearly signed with pavement markings showing the parking space is reserved for EV charging only.

The EV charging space should have sufficient space around each parking spot for the EV driver to easily move around. The ideal parking spaces are perpendicular (at right angles) to the traffic flow, but parallel parking spaces are also suitable. Diagonal parking spaces are not recommended for EV charging, but can be repainted as perpendicular parking spaces to host EV charging.



EV charging site amenities

Consider the amenities available adjacent or near potential sites that may attract EV drivers, thereby making the site more appealing to motorists. This includes restrooms, rest areas and food outlets as well as easy walks, parks and leisure facilities in the area that can be enjoyed by EV drivers and passengers.



Electricity supply

Parking spaces for EV charging should ideally be close to an existing electricity supply, including a transformer or switchboard. This minimises the amount of trenching and cabling needed, keeping costs down for the EV charging provider.

Unless your location has plenty of spare electrical capacity, an upgrade to the existing electricity supply to your site may be required. The EV charging provider will investigate and pay for this. If this is the case, additional space may be required for a new transformer and communications equipment depending on the charging equipment. Some sites may not be suitable if the electrical connection upgrade is too expensive.

All NSW Government funded fast charging stations must be powered by 100% renewable power. This could be either on site or purchased using greenpower.



Charger numbers at a site

Like fuel bowsers, chargers can have multiple charging plugs. Each site will have a minimum of 2 chargers installed, allowing 4 EVs to charge at the same time. Most chargers installed as part of the program will be able to deliver charging at a rate of up to 350 kilowatts (kW) direct current (DC). This is up to 7 times faster than many existing fast chargers in NSW. Faster chargers will be able to cater for both current as well as future EV models, which are expected to require a faster rate of charging. Today's EVs will still be able to use fast chargers, and will charge at the vehicle's maximum charging rate.

Role responsibilities



Typical responsibilities of a EV charging site host

Dedicated parking spaces and land to host charging and electricity supply infrastructure.

Access, preferably 24 hours a day, 7 days a week to the EV chargers, with advance notice of any temporary access restrictions.

Maintain amenities on the site, such as restrooms and lighting as well as surrounding areas.

Manage any agreed parking enforcement at the site.



Typical responsibilities of a charging provider

Arrange and pay for all necessary permissions and electrical connections to install and operate EV charging.

Arrange, pay for and own the EV charging infrastructure, including all installation costs such as trenching, restoration of site, installation of bollards, signage and pavement markings.

Payment of all electricity used at the site for vehicle charging.

Collection of payment from EV drivers for charging and provision of support for EV drivers regarding EV charging and payment, such as a toll-free 1800 number.

Maintenance and repair of EV chargers.

Restoration of the site should the EV chargers be removed for any reason.



How to get involved

If you have one or more sites in NSW that would be suitable for public EV charging infrastructure, you can complete an online expression of interest (EOI) form at energy.nsw.gov.au/EVcharginghosts

Expressions of interest for site hosts will be open from early November 2022 to end of June 2023.

You will need to provide:

- your business name and Australian Business Number (ABN), if applicable
- a contact name, email address and phone number
- address of the proposed site/s to host public EV fast charging (or coordinates if no identifying address)
- confirmation you can dedicate 4 adjacent parking spaces to EV charging at the site
- your consent to make this information available to interested charging providers only who are considering applying for NSW Government funding.

Charging providers are also interested in the following information, if available, to help them identify the most suitable sites:

- a list of amenities on site or nearby such as food outlets, restrooms, lighting, Wi-Fi, shopping, playgrounds and leisure facilities including public gardens and parks
- site photos, including suggested parking spaces and any amenities
- electricity supply to the site (if known), including details of transformers or main switchboard location and capacity
- mobile network coverage at your location for EV charging communication.



Next steps

Once we have verified site/s details, we will provide a confidential list of potential NSW EV charging sites to charging providers, who install and operate EV charging stations across NSW. This could occur at different times of year and for different funding rounds over the next 4 years. Your expression of interest will remain valid throughout this time. You can change or remove your details at any stage by emailing electric.vehicles@environment.nsw.gov.au.

Once funding rounds begin, charging providers interested in your site may contact you directly using the details you registered for your site. Following initial discussions, if both parties are interested in progressing, it's recommended that a letter of intent or a similar document be signed. The charging provider will then most likely begin investigating and reviewing more details about your site.

Please be aware that NSW Government is not involved in the negotiations between you and the EV charging provider. We recommend obtaining professional guidance for these negotiations. Expressing your interest does not commit you to becoming a site host if you're not able to reach a mutual agreement.

Following any agreement, charging providers may apply to the NSW Government for co-funding for the EV chargers at your site. Applications for Round 2 funding are expected to open late November 2022. It will take approximately 26 weeks to process applications to determine the successful applicants and sites.

If the application for your site is successful, the charging provider will contact you directly to negotiate a formal site agreement. We recommend getting professional guidance for these agreements. Once this agreement is in place, the charging provider will arrange any permissions and electricity connections and install the EV chargers. The process and estimated timelines are summarised below.

FAQs are available via
energy.nsw.gov.au/EVcharginghosts

For further information email
electric.vehicles@environment.nsw.gov.au



Figure 3

Process and estimated timelines.



energy.nsw.gov.au/ev