Department of Planning and Environment

# Drive electric NSW EV fast charging grants



Funding guidelines – round one January 2022



Published by NSW Department of Planning and Environment

Title Drive electric NSW EV fast charging grants

Sub-title Funding guidelines - round one

First Published January 2022

EES 2021/0560

ISBN 978-1-922738-46-2

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## Introduction

The NSW Government is determined to take decisive and responsible action to reduce emissions and secure the state's economic prosperity for the decades to come. That's why the Government has a clear objective to achieve net zero emissions by 2050 by creating new jobs, reducing household costs and attracting investment to NSW.

Reducing transport emissions is crucial to meeting our net zero target. The transport sector is currently the state's second largest source of  $CO_2$  emissions. It is predicted to become the state's leading source of emissions by 2035. The transport sector was responsible for 22% of all NSW emissions in 2018 and 87% of these emissions were from road transport. Almost 50% came from passenger vehicles.

The Electric Vehicle Council's **Consumer Attitudes Survey (2021)** found one of the biggest barriers to consumers purchasing plug-in EVs is range anxiety, with 92% of respondents saying convenient fast public recharging would be the biggest encouragement to purchase a battery electric vehicle (BEV). More than two thirds of respondents listed the provision of public charging infrastructure as an important role for government.

The NSW Department of Planning and Environment has designed the Drive electric NSW EV fast charging grants under the **NSW Electric Vehicle Strategy**.

The EV fast charging grants will support charge point operators (CPOs) to build, own and operate fast charging stations across NSW, assisting with the transition to BEVs and lowering emissions across the state.

These guidelines are for round one of the grants, and the NSW Government may change features, requirements or the process for future rounds.

#### Purpose

The guidelines provide rules and guidance to applicants seeking funding to build charging infrastructure through round one of the EV fast charging grants. Applicants should read these guidelines in conjunction with the <u>frequently asked questions page</u> on the Energy Saver website.

#### **NSW** Government objectives



### Overcome range anxiety through development of a broad, visible and accessible fast charging network across NSW

Increase both availability of charging infrastructure and visibility of charging stations. This will also ensure households in areas with limited off-street parking live no more than 5 km from an ultra-fast charger in metropolitan areas.



#### Ensure connectivity between metropolitan and regional areas

Includes placement of fast charging infrastructure at distances no greater than 5 km along commuter corridors in Greater Sydney and no greater than 100 km across all major highways across NSW. This will create EV superhighways across the state.



#### Future-proof the EV charging network past 2030

Offer high-capacity chargers that cater to existing and future BEVs and plug-in hybrid vehicles (PHEV).

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#### Maximise grid support and reduce scope 2 emissions

Mandate that sites must be powered 100% by renewable energy and encourage the use of on-site battery storage solutions.



#### **Ensure funding supports projects**

NSW Government co-funding is used to build new stations that could not be built without co-funding. The funding is not for upgrading of existing stations but for new key locations to ensure a broad, visible and accessible EV fast charging network across NSW.

#### Grants snapshot



#### Application process: Two-stage process



**Stage one** Assesses eligibility and key site preliminary criteria



Stage two

Nominated site applicants invited to provide more comprehensive merit criteria



The **Drive electric NSW EV fast charging site host prospectus** has identified eligible site owners that may be interested in hosting charging infrastructure.

See page 19 for more information.





# Funding model

#### Two-stage competitive bid

The grants provide co-funding for eligible applicants to build, own and operate EV charging stations across NSW.

### There are two stages in the application process:

- Stage one: Eligibility and key site details
- Stage two: Detailed application

Application processes for each stage are detailed below.

As a minimum requirement, charging stations within a bid must be 50% privately funded by the applicant or their partners (other financiers, organisations or local governments).

To be successful, applicants must complete both stages of the application. Successful applicants will enter into a funding deed based on the NSW Government's terms and conditions. Failure to maintain agreed targets or performance levels may result in a request for all or part of the grant to be repaid.

All applicants must commit to having all charging stations within their bid operational within 2 years of the execution of a funding deed with the NSW Government.

#### Timeframes for assessment of bids

Timeframes for submission and assessment of competitive bids will follow the schedule in table 1. This timeframe may change at the discretion of the NSW Government.

Stage	Description	Timeframe
Stage one: Eligibility and key site details	Applicants confirm eligibility for the program and provide detail on the sites they would like to bid for. This includes addressing the program merit criteria.	6 weeks
Stage one: Eligibility and key site details - assessment	The department reviews stage one applications through an assessment panel. The assessment panel's final decision is based on competitive analysis of sites across all applications and the applicant's ability to address the merit criteria.	3 weeks
Stage two: Detailed application	Applicants put forward a detailed application on the sites nominated by the NSW Government for progression from stage one. All merit criteria must be reviewed and finalised by applicants. There is no guarantee that stations selected for this detailed application stage will be awarded funding.	6 weeks
Stage two: Assessment of final bids	The department will review all detailed applications through an assessment panel and will contact applicants to let them know the outcome of their bid and which stations will be awarded co-funding.	4 weeks
Contract award stage	The NSW Government will award contracts for funding through the signing of formal funding deeds, after which projects will commence.	3 weeks

Table 1 Timeframes for assessment of bids

## Prioritisation of charging stations in bids

An applicant's bid may include one or more charging stations. All proposed charging stations within each bid will be assessed individually, as well as considered as part of a portfolio of bids that include multiple charging stations. For bids that include multiple charging stations, the department reserves the right to select which charging stations are selected for co-funding. There is no guarantee that all charging stations in a bid will be successful.

Applicants will be asked to rank the stations in their bid in priority order. This assists the assessment panel to consider the network of charging stations when considering the bids put forward. Stations will be assessed on the merit criteria listed in this document. Funding can be sought and dispersed across multiple stations within one bid.

Applicants will be asked to revise the requested grant funding amount in stage two of the application process if the nominated charging stations within their bid exceeds the 50% government co-funding threshold or the maximum cap per station.

## Capital cost for renewable energy generators and battery storage

The NSW Government co-funding contribution for each charging station can include the capital cost for on-site batteries or renewable energy generation sources, if the overall co-funding request does not exceed 50% of the total project value (TPV). This contribution can be pooled across a bid and used for a battery/renewable energy generator(s) on one or multiple charging stations across a bid. Greater merit will be given to bids that include renewable energy generators and battery storage.

## Allocation of grant funds across multiple charging stations

Applicants may allocate requested co-funding in different proportions across charging stations within a bid, as long as the total requested funding envelope does not exceed 50% of the TPV.

As an example, an applicant may put in a bid for 25% of the capital cost of a charging station in a metropolitan area, but 75% of the construction cost of a charging station in a regional area. As the total co-funding request does not exceed 50%, this bid would be deemed eligible. Applicants are advised to put forward co-funding requests for each station based on the level of grant required, as not all charging stations included within a bid may be successful.



The final grant amount to be offered for the portfolio of charging stations must be below the maximum cap of 50% of the TPV (i.e. for all charging stations within a bid). If one, or multiple proposed stations are not successful within a bid, this may result in revised co-funding amounts offered for remaining stations. The revised amount will be determined by the department and is not negotiable. Please see the example of a funding allocation for a bid in table 2 below.

No.	Charging Station site location	Total Project Value (TPV)	Co-funding request (\$)	Co-funding request (%)
1	Greater Sydney	\$1,000,000	\$200,000	20%
2	Greater Sydney	\$800,000	\$300,000	37.5%
3	Greater Sydney	\$850,000	\$400,000	47%
4	Greater Sydney	\$900,000	\$300,000	33%
5	SENSW	\$950,000	\$700,000	74%
6	Central Coast	\$1,000,000	\$500,000	50%
	Total	\$5,500,000	\$2,400,000	44%

Table 2 Applicant bid example

In the above example the applicant has requested different amounts for each charging station, requesting more funding for the construction of two regional charging stations. As the overall bid falls under 50% of the total cost of all stations combined, this bid would be eligible. The \$5.5 million construction cost in this example would also need to include the costs for either onsite or offsite renewable energy generators and/or onsite battery storage solutions.



Figure 1 Example capital cost vs government contribution across 6 sites

#### Funding rounds

Funding rounds are the mechanism that will be used by the department for the grants.

Funding rounds are intended to occur between 2022 and 2024, however, this may change at the discretion of the NSW Government.

#### Round one funding

The total NSW Government funding allocated for this round is \$35 million, which may be increased or decreased at the discretion of the NSW Government.

Applicants are required to prepare and submit a budget for each charging station included within their bid. An agreed budget will form part of the funding deed with the NSW Government. Funding must be used only for eligible expenditure, as set out in Appendix 2.

#### Funding caps and exclusions

Applicants may submit bids for co-funding up to a total of \$15 million per bid in round one. Funding is capped at 50% and must not exceed a maximum of \$490,000 for each charging station included in a bid on average.

Funding must only be used for eligible activities such as the capital costs related to the construction of stations. All eligible expenditure and eligible activities are detailed in Appendix 2. Costs will need to be proven before milestone payments are made (with the exception of milestone one, see table 5). If the total project value (TPV) changes during the project, the NSW Government will do either of the following:

- If TPV is less than originally stated: Future milestone payments will be adjusted to reflect a contribution that meets the percentage of TPV originally requested by the applicant. This is to ensure the overall contribution by the NSW Government does not exceed the original percentage of TPV requested.
- If TPV is more than originally stated: The co-funding contribution from the NSW Government cannot be increased. The co-funding contribution from the NSW Government will remain at the original requested dollar value.



Examples of this are provided in the boxes below.

#### Example 1:

Applicant A has a TPV cost of \$5 million and has requested a contribution of 50% (\$2.5 million) from the NSW Government. As the project draws to a close, the realised TPV is \$4.6 million. The NSW Government will adjust the final milestone payment so the total funding does not exceed \$2.3 million overall (50% of the total capital cost).



#### Example 2:

Applicant B has a TPV cost of \$10 million and has requested a contribution of 30% (\$3 million) from the NSW Government. As the project continues, the TPV increases to \$11 million. The NSW Government funding contribution will not be adjusted to meet 30% of the new TPV and will remain at \$3 million.



**Figure 3** Funding contribution across an entire project when final TPV is more than the initial contract value

# Supporting regional and metropolitan NSW through priority zones

#### The NSW electric vehicle fast charging

master plan identifies optimal and priority zones that are ideal for charging stations across metropolitan and regional NSW. There are 250 priority zones identified out of over 380 optimal zones in the master plan. The 250 priority zones have been separated into 107 green zones and 143 blue zones. Information on the master plan can be found at Appendix 3 and the master plan map can be accessed online at energysaver.nsw.gov.au/EVmasterplan.

Only green zones are eligible as the location of a charging station in round one. This is set to expand to include locations identified as blue zones in future funding rounds. The list of priority zones can be found at Appendix 4.

Optimal and priority zones were identified by analysing a range of technical, social, and economic considerations. This was to ensure that future development of charging infrastructure will offer a viable fast charging network for NSW. Some of the data analysed includes:

transport routes (major, regional and tourist) for NSW

- through traffic analysis including freight routes
- predicted EV uptake volumes and current EV owner numbers
- percentage of EV owner stopovers, for example, at a tourist attraction
- optimal placement to ensure EV fast charging is available every 100 km of driving on major highway routes across NSW.

To ensure equity in the development of both metropolitan and regional charging stations, there are a minimum number of charging stations that need to be built in regional locations dependent on the overall bid size.

For bids that contain multiple charging stations, greater merit will be given to bids that propose charging stations in multiple regions across NSW. There is no maximum for the number of regional charging stations that can be included within a bid (up to the funding cap), as long as metropolitan minimums are achieved. Metropolitan charging stations outside Greater Sydney include the Central Coast, Newcastle and Wollongong.

Number of charging stations included within a bid	Minimum number of regional charging stations that must be included within a bid	Minimum number of metropolitan charging stations outside Greater Sydney that must be included within a bid
1-3	0	0
4-6	1	0
7-12	2	1
13-18	3	1
19-24	4	2
25+	5	2

Table 3 Minimum charging station requirements within a single bid

The master plan proposes priority zones in all 8 geographic regions described in table 4 on page 17. The NSW Government is looking to fund only one charging station per green zone in round one. If multiple applicants propose charging stations within the same zone, the competitive assessment process will allow the department to determine which applicant will be successful within that zone.



Figure 4 Two-stage competitive bid process-site example

Geographic Region	Numb	er of green zones
Greater Sydney	55	ݿݹݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡ ݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡ ݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡ ݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖ ݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖ
Central Coast	6	
Newcastle	4	ŢŢŢŢŢŢ
Wollongong	1	₽Ÿ
South-East NSW	17	ݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖݡݖ ݡݖݡݖ
South-West NSW	8	₽Ÿ₽Ÿ₽Ÿ₽Ÿ₽Ÿ₽Ÿ₽Ÿ
North-East NSW	10	ſĴŢĴŢĴŢĨŢĨŢĨŢĨŢĨŢĨŢĨŢĨŢĨŢĨŢĨŢĨ
North-West NSW	6	<u>רָקָ'קָלָק'</u>

Table 4 Green zones that are available for inclusion in round one bids



#### Indicative milestone payments

The NSW Government intends to offer 6 milestone payments across the lifecycle of these projects. The final amounts and the number of milestones for successful bids will be confirmed before the signing of a funding deed with the NSW Government.

Milestone	Description	Nominal funding percentage
1	Signing of funding deed, acceptance of project documentation and approval of charging station locations.	10%
2	At least 30% of all approved charging stations are operational and open to the public.	30%
3	At least 60% of all approved charging stations are operational and open to the public.	30%
4	All stations outlined in the funding deed are operational and open to the public.	20%
5	All stations outlined in the funding deed have been operational for 12 months and all data and knowledge sharing activities have been completed.	5%
6	All stations outlined in the funding deed have been operational for 24 months and all data and knowledge sharing activities have been completed.	5%

Table 5 Indicative milestone payments





# Application process

Applicants are required to submit set information and documents as part of their bid. This section highlights what information will be assessed at each stage of the application process.

A detailed application checklist and an application requirements guide (Appendix 1) are available to assist with bid preparation and development.

In **stage one** applicants must meet the overall round eligibility requirements and provide key site designs and early bid proposal details.

Stage one requires applicants to provide:

- applicant and partner organisation details
- preferred sites for which a bid will be made
- funding proposal and accountant declaration
- charging station high-level project design, including:
  - project plan, milestones and budget
  - location and available site details
  - number of charging bays and available technical details.

More guidance on what is needed in the application is found at:

- Appendix 1: Two-stage application requirements guide
- Appendix 2: Eligible expenditure.

Applicants can also refer to the application checklist.

Eligible sites will be competitively assessed based on high-level merit criteria. The merit of individual charging stations will be assessed and considered alongside the merit of the entire bid in pursuit of the NSW Government's objectives for this program. Preferred sites within an applicant's bid will be selected by the NSW Government to progress. Successful applicants will be contacted to let them know the scope of their bid for stage two.

In **stage two** applicants must provide detailed information about the sites nominated for progression by the NSW Government. The merit of individual charging stations will be assessed and considered alongside the merit of the entire bid in pursuit of the NSW Government's objectives for this program.

The stage two application requires significant updates to information about the proposed charging station/s and will provide an opportunity for applicants to further develop their business case, overall bid, approvals status and detailed project plans.

Applicants will be required to build and expand on their response to the merit criteria listed in table 7. Applicants will have an opportunity to review and resubmit costings of charging stations that are being considered within their overall bid during stage two.

Guidance on what to provide in the stage two application is found in Appendix 1. Applicants can also review the application checklist.

#### Eligibility criteria

Applicants must be eligible to put in a bid for funding. The below table outlines the eligibility requirements for all applicants.

Eligibility criteria	Eligibility requirements
Eligibility	Applicants must:
criterion A: Minimum applicant requirements	<ul> <li>have and provide the ABN of their organisation and any other partner organisations</li> </ul>
	• be one of the following:
	– an entity incorporated under the Corporations Act 2001(Cth)
	<ul> <li>a state-owned corporation or subsidiary of an Australian state or territory owned corporation; or</li> </ul>
	– a local government or council in NSW.
	<ul> <li>provide a project funding strategy, including an accountant declaration, that confirms the applicant's ability to fund its share of the project costs. The accountant declaration must be in the form stipulated in Appendix 6. As a minimum requirement, charging stations across a bid must be 50% privately funded (on average) by the applicant or their partners (other financiers, organisations or local governments)</li> </ul>
	<ul> <li>agree to participate in knowledge sharing activities related to the project, as defined in the knowledge sharing plan. This plan is available for applicants review at the opening of round one applications. Have ownership of, access to, or the beneficial use of, any intellectual property rights, including moral rights (IP) necessary to carry out the project.</li> </ul>

Table 6 Eligibility criteria

Eligibility criteria	Eligibility requirements
Eligibility	To be eligible your project must:
criterion B: Eligible charging infrastructure projects	• construct new fast and/or ultra-fast charging stations. Increasing the scale or making additions to existing stations, will not be eligible
projecto	meet the following minimum requirements:
	<ul> <li>a minimum of 2 chargers to service a minimum of 4 bays concurrently (i.e. 4 charging plugs)</li> </ul>
	<ul> <li>a minimum of 2 charging bays rated at a minimum of 175 kW per bay (+/-20%)</li> </ul>
	<ul> <li>a minimum of 2 charging bays rated at a minimum of 350 kW per bay (+/-15%)</li> </ul>
	– includes redundancy in the system (e.g. an additional 22 kW AC plug)
	– has a minimum connection of 500 kVA to site (where applicable)
	<ul> <li>– evidence where a proposed station connection capacity of 500 kVA is not possible (including evidence for rationale behind reduced connection size), and the proposed new total site connection capacity.</li> </ul>
	• utilise plug types at the fast charging stations which are in accordance with the Federal Chamber of Automotive Industries (FCAI) technical statements and/or codes of practice
	• be either:
	<ul> <li>located within a green zone identified in the <u>NSW electric vehicle</u> <u>fast charging master plan</u>; or</li> </ul>
	<ul> <li>– can demonstrate an alternative proposed charging station within NSW that meets the NSW Government's objectives listed on page 6.</li> </ul>
	• source renewable energy to cover the electricity usage of all charging stations in perpetuity. Renewable energy sources must be either on-site renewable energy generators, off-site renewable energy generators, large-scale generation certificates (LGCs), or a combination of sources
	<ul> <li>not restrict public access to the fast charging stations (such as by providing priority, reserved or exclusive access)</li> </ul>
	• have 4 designated car parks for 4 (or more) BEVs with lane markings
	• commit to install and commission all fast charging stations within 2 years of executing the funding deed with the NSW Government.

Table 6 Eligibility criteria (continued)

Eligibility criteria	Eligibility requirements
Eligibility	To be eligible your project must also:
criterion C: Payment interoperability and public accessibility	• include commonly accepted payment options that can be reasonably expected by EV drivers, such as EFTPOS or using a bank card. Payment options must not be restricted by any form of business-related prioritisation, such as memberships, subscriptions or smart phone applications
	<ul> <li>provide the option to pay for EV charging using an Opal digital card by ensuring the payment terminal provided at the EV charging site is:</li> </ul>
	– a certified EMV terminal functioning in an unattended mode
	<ul> <li>configured with a merchant ID that is used only for EV charging (i.e. not used for any other services).</li> </ul>
	<ul> <li>show that charging bays for use by people with a disability will be provided, to the degree necessary, to give equitable access for charging</li> </ul>
	<ul> <li>ensure these parking bays be clearly marked and easy to find</li> </ul>
	<ul> <li>show that charging stations can be accessed daily with minimum hours of availability set between 6 am and 9 pm</li> </ul>
	<ul> <li>show that no other fees from co-located businesses can be asked of drivers to access a location (such as a shopping centre carpark fee)</li> </ul>
	• be able to publicly show the availability status of a charging station's charging bays via an online platform and that live charging station data can be used by the department.

Table 6 Eligibility criteria (continued)

#### Merit criteria

Both stage one and two applications will be assessed against the following list of merit criteria. The level of project details and list of required documentation will be different for each stage. Applicants should refer to Appendix 1 for the information requirements of each stage.

Merit criteria	Merit criteria and guidance
Merit criterion A: Cost and sizing	Charging infrastructure will be considered in line with the following parameters:
of charging infrastructure and	• the efficiency of the cost-to-kW charger capacity delivered
the value for money offered by your	• the total kVA connected to the charging station
project	<ul> <li>the total amount of charging capacity (kW) across all chargers proposed at all stations within a bid</li> </ul>
	• the number of charging bays at each charging station.
	Project cost will be assessed based on the following information:
	• the quality and detail in project budget and assumptions, including contingency plans to manage cost overruns
	• the level of detail and credibility in capital cost estimates, including equipment, network upgrades and station security
	• the level of detail and credibility in operational cost estimates, including maintenance, customer support and other relevant costs.
	You may provide a rationale for your project cost and size and show value for money offered by your project through identifying:
	<ul> <li>the expected return on investment for the project</li> </ul>
	• the extent to which the project leverages additional partnerships, cash or in-kind contributions from other organisations
	• the rationale for the number of charging bays, kVA connected to site and the total charging capacity at each charging station.

Table 7 Merit criteria

Merit criteria	Merit criteria and guidance
Merit criterion B: Proposed charging station locations	The NSW Government wants to see how your project will deliver a diverse array of stations across NSW. Greater merit will be given to bids that propose charging stations in multiple regions across NSW.
	Bids will be assessed for merit in relation to the project location with consideration to the following ranking:
	• the justification and rationale behind choosing a location within a green zone, or justification for a location outside of a green zone
	• the diversity of sites included from across the 8 geographic regions in NSW
	• what level of support or permission has been given by the landowner to occupy and build at a location (a letter of support or contractual agreement signed by the landowner will be required to verify).
	You may provide a rationale for your project locations and demonstrate the strengths and features such as whether a site:
	<ul> <li>is co-located with local amenities or attractions</li> </ul>
	<ul> <li>has a high level of public visibility and is easily identifiable</li> </ul>
	<ul> <li>is safe and has good public lighting</li> </ul>
	<ul> <li>is close to major roads</li> </ul>
	• can be accessed easily and is available for access 24 hours a day.



Merit criteria	Merit criteria and guidance
Merit criterion C: Charging station design and project delivery	The NSW Government wants to see how your project will be planned and delivered, including station design and layout.
	Bids will be assessed for merit in relation to the project design and strength of methodology for construction and management of the charging stations proposed within each bid. Consideration will be given to the following:
	• the proposed timeframes for projects to become operational
	<ul> <li>the comprehensiveness of the project plan and breakdown of key project stages</li> </ul>
	• the readiness of projects to commence construction
	<ul> <li>how applicants plan on managing charging across each site, particularly during peak hours</li> </ul>
	<ul> <li>the assessment and proposed mitigation of project risks and comprehensiveness of the project's risk management framework/ plan, including the management of safety issues</li> </ul>
	• the quality of the project design, including:
	– the number of charging bays accessible to disabled drivers
	<ul> <li>amenities that are included in the design to enhance the consumer experience and ensure a safe consumer experience during all hours of operation</li> </ul>
	<ul> <li>how many hours a day the charging station will be accessible to the public</li> </ul>
	- the convenience of access to the charging station
	<ul> <li>whether the stations will have land available for charging heavy vehicles, and if so, the space available of each charging bay in square metres</li> </ul>
	<ul> <li>any innovative approaches to creating a positive and enjoyable driver experience</li> </ul>
	<ul> <li>how much parking space is available nearby to allow for the safe queuing of other EV drivers.</li> </ul>
	• the use of hardware solutions that provide high reliability and have a proven track record
	• the proposed maintenance and customer service timeframes for each charging station during operation.

Table 7 Merit criteria (continued)

Merit criteria	Merit criteria and guidance
Merit criterion D: Network access	Importance will be placed on the validity and feasibility of the proposed site network connections, and how progressed they are.
	The NSW Government will assess bids based on the status of their network connection at each proposed site, in line with the following 5 network connection stages, listed highest to lowest priority:
	new connection or connection alteration approval is already granted
	<ul> <li>applicants have an agreement with distribution network service providers (DNSPs) for streamlined approval process</li> </ul>
	• new connection or connection alteration process has begun and there is excess network capacity at the chosen location (if known or available publicly)
	new connection or connection alteration process has begun
	no connection investigations have occurred.
	You can find out more information about your local DNSP's network connection process on their website:
	Ausgrid: ausgrid.com.au/connections
	Endeavour Energy: endeavourenergy.com.au/connections
	Essential Energy: essentialenergy.com.au/connections.

Table 7 Merit criteria (continued)

Merit criteria	Merit criteria and guidance
Merit criterion E: Renewable energy and battery storage	Bids can display additional merit with charging sites that have renewable energy and/or battery storage systems included. Consideration for renewable energy sources will be given to the following:
	• the use of on-site renewable energy generators and their capacity to support the electricity needs of the project, including any planned future upgrades
	<ul> <li>the total capacity of renewable energy added to the National Energy Market (NEM) as a result of the project</li> </ul>
	<ul> <li>the use of GreenPower for purchasing LGCs, or the annual compliance process for the surrendering of LGCs</li> </ul>
	• applicants that can prove they are 100% renewable across their organisation/s.
	If a bid proposes to use battery storage systems, they will be assessed for merit with consideration of the following:
	• the total kWh of battery storage proposed per charging station
	<ul> <li>the total kWh of battery storage proposed per bid</li> </ul>
	• innovative solutions to promote new revenue models from battery storage and plans to use battery storage to provide grid support
	• the proximity of the battery storage system to the charging station.

Table 7 Merit criteria (continued)

Merit criteria	Merit criteria and guidance
Merit criterion F: Applicant capabilities and capacity	Applicants can show their organisation and their partner's organisation's capabilities and capacity to carry out the project by identifying:
	• a track record with similar projects such as delivering and managing public charging infrastructure or other large electrical installation projects which further demonstrate experience in:
	– planning and design of the infrastructure
	<ul> <li>the installation of electrical infrastructure and engineering works</li> </ul>
	<ul> <li>managing grid connection approval processes</li> </ul>
	– ongoing site operations
	<ul> <li>managing scheduled and unplanned maintenance</li> </ul>
	– financial and/or risk management
	<ul> <li>network coordination</li> </ul>
	<ul> <li>infrastructure maintenance and customer support.</li> </ul>
	<ul> <li>access to personnel with the right skills and experience</li> </ul>
	<ul> <li>details in the project plan which may include</li> </ul>
	– key risks
	– identifying key milestones
	– project budget
	<ul> <li>how you will manage project dependencies, for example, sourcing key resources and approvals from the issuing authorities.</li> </ul>
	• financial viability to co-fund and operate proposed projects which may include a completed financial status table.
Merit criterion G: Support jobs and	Applicants can demonstrate how their projects support jobs and economic growth through identifying:
economic growth	• the impact of the project on jobs in NSW
	• the total project investment in NSW and in the local region
	<ul> <li>how the project supports additional economic development in NSW, for example, through sourcing products and suppliers from NSW or encouraging travellers to regional NSW</li> </ul>
	<ul> <li>increased opportunities for Indigenous economic participation</li> </ul>
	• expected benefits for other organisations using the infrastructure, for example, local businesses and community groups.

Table 7 Merit criteria (continued)

#### Submitting a bid

- All applicants must use the department's nominated online grant management system (GMS), SmartyGrants, to submit a bid and all relevant documentation. The GMS can be accessed at <u>electricvehicles.smartygrants.com.au</u>. Instructions for how to use the GMS will be provided immediately after logging in to the platform.
- 2. The GMS gives you the option to save and return to your application at a later time. The GMS will include a mix of mandatory fields, optional fields and requirements to provide supporting attachments. Applicants will be required to comply with stated word or page limits for various fields and/or attachments. The department reserves the right to elect not to read words beyond a specified limit.
- 3. Applicants should ensure they have completed all sections in the GMS, including mandatory attachments.
- 4. Bids will be developed in the GMS over two assessment stages. Stage one will check eligibility and allow for initial project details to be submitted and assessed. Successful applicants are then invited to continue to stage two to continue developing their bid.
- 5. Applicants have the discretion to propose one or multiple charging stations in a single bid. Applicants who seek co-funding for multiple charging stations must present each station and its supporting information separately within a bid and in priority order. In a bid that contains multiple stations, the department reserves the right to deem any station within as successful or unsuccessful.

- If applicants propose multiple stations in a bid, an applicant may only nominate one station for each green zone identified in Appendix 4.
- Applicants must submit all information for a bid before the designated time and date outlined on the Energy Saver website, at energysaver.nsw.gov.au/EVfastcharging.
- 8. The department may seek supplementary information or clarification from applicants at any time throughout the bid and assessment process.
- At any time during the bid and assessment process the department may carry out due diligence on a bid. Due diligence may include, but is not limited to:
  - inviting applicants to present their bid to the department and/or the department's consultants, assessment panel and advisers
  - commissioning or completing research, analysis and modelling to support assessments
  - contacting any relevant federal, state, territory, local or international government agency about the bid
  - requesting applicants to disclose any material reasonably required in respect of the eligibility criteria and merit criteria.

By submitting a bid, applicants indicate their willingness to agree to all conditions outlined in these guidelines. This includes, but is not limited to, all knowledge sharing, reporting, program evaluation and funding requirements.



# Assessment process

The department will assess bids across two stages. Bids must be completed in full and include all required information before the assessment process. Applicants will be notified at different assessment stages to inform them of outcomes.

The assessment of bids is carried out by an assessment panel. The assessment panel includes representatives from the department, other NSW Government departments, stakeholder groups and independent persons. The assessment panel supports the NSW Government's high standard for assessing grant bids and promotes confidence in the round's decisionmaking governance and accountability.

The different stages of the assessment process in chronological order are detailed below.



Figure 5 Stages of the assessment process

**Stage one eligibility assessment:** Is an initial check to ensure no major eligibility issues are apparent within the bid. The department may ask applicants to clarify or provide additional information. Applicants will not be given any chance to substantially improve or change their bid during assessment. The assessment panel will select which bids are eligible and which are ineligible. Applicants will not be notified of the stage one eligibility assessment at this point.

Stage one merit assessment: Is an initial merit assessment of stage one bids to determine their merit potential. The assessment will use a ranking methodology to apply a weighted merit score to all eligible bids. An assessment panel will determine the weighted merit score for eligible charging stations within a bid against each merit criterion. Applicants will be notified of the outcome of both the stage one eligibility and merit assessment together. Applicants will either be unsuccessful or invited to continue developing specific sites within their bid for stage two assessment. Not all sites proposed in stage one will necessarily be approved for progression.

**Stage two merit assessment:** Is a second merit assessment of bids to competitively determine the merit of proposed charging stations. The stage two bid allows for more detailed project information to be prepared and provided. The stage two merit assessment will use a ranking methodology to apply a weighted merit score to all eligible bids. An assessment panel will determine the weighted merit score for eligible charging stations within a bid against each merit criterion. The merit of individual charging stations will be considered alongside the merit of the entire bid in pursuit of the NSW Government's objectives for this program.

Each charging station within a bid application will be assessed. As with stage one, some stations in stage two bids may be successful for funding whilst others may be unsuccessful. Applicants will prioritise charging stations within their bid. The department will consider which stations are most important to overall project and program delivery. Applicants may be offered revised grant funding amounts for successful charging stations if not all charging stations within a bid are successful and the overall TPV then exceeds the 50% threshold.

Assessment panel final recommendation and department approval: The assessment panel will review the merit scoring of eligible bids and make a final decision on the bids to be recommended for approval. This final recommendation will also consider maximum funding caps for applicants and the total quantum of funding available within the round. The recommended bids will then be considered by the department for approval. The bids approved by the department will be deemed successful. Any eligible bids not approved by the department will be considered unsuccessful.

#### Applicants notified of assessment

outcomes: The department will advise all applicants of the outcomes of the assessment process. Successful applicants will be provided with a funding deed and other project management documents. Unsuccessful applicants will be encouraged to apply for future funding rounds and informed of why their bid was unsuccessful. If requested, further feedback will be provided by the department in a follow up session at an agreed time.

**Funding deed execution:** All successful applicants will be required to sign a funding deed with the NSW Government within 20 working days. This deed will affirm the schedule for charging station development, required insurances and NSW Government payments. Signing the funding deed will signify the end of the assessment stage and the start of the project implementation phase. **Amendments to guidelines:** The department reserves all rights to amend these guidelines and the bidding and assessment processes described herein.

**Final decisions on bids:** The department has discretion to reject, refuse or cease to assess a bid at any time if the department is of the view the bid is unlikely to be successful, or if significant conflicts of interest are identified. The department's decision is final in all matters, including:

- the approval of bids for funding, including the number of charging stations within a successful bid
- the amount of grant funding awarded
- the terms and conditions of funding.

Late bids, resubmission of bids, or requests to re-assess, will not be accepted.

## Offers for successful applicants

All funding offers and any payment of funds are conditional upon the execution of a funding deed with the NSW Government. Applicants must ensure funding offers are kept confidential until the execution of the funding deed by both the applicant and the NSW Government.

The NSW Government reserves the right to withdraw its offer of funding should an applicant not comply with any items listed in these guidelines.

The NSW Government may reduce the grant funding if the eligible expenditure during the project implementation phase is less than the total grant amount requested.

#### Governance and probity

The department is in consultation with a probity advisory firm throughout the delivery of the program. The program will also be guided by the following principles:

- treat all potential participants with impartiality and fairness, with all having equitable opportunity to access and respond to information and advice
- use a competitive process to rank bids in order of merit against the identified assessment criteria
- maintain accountability and transparency of the process, assessing all bids in a systematic manner
- ensure confidentiality and security of all applicant information, including any intellectual property, proprietary and privacy issues
- identify and manage conflicts of interest before carrying out work or as soon as they arise.

An external probity advisor has been engaged to ensure the process followed throughout the assessment process is fair and equitable for all applicants.

# Withdrawal, suspension, cancellation and penalties

## Applicant withdrawal from the program

Applicants may withdraw an eligible bid made during a bidding window via the GMS. Withdrawal of an eligible bid will result in the cancellation of the applicant's registration for that funding round. All withdrawn bids will become ineligible and will not be assessed further. The applicant may still submit a bid in future funding rounds.

The department may cancel an eligible bid on behalf of an applicant:

- if requested by an applicant in writing during the bid and assessment process
- if satisfied that the applicant is unable to withdraw their bid during the application and assessment process due to a fault or malfunction relating to the GMS.

#### Suspension and cancellation

The department may suspend or cancel the funding round if it believes on reasonable grounds that:

- the round cannot continue, or be conducted, in a fair and orderly manner
- it is likely that the round will not be able to continue, or be conducted, in a fair and orderly manner.

The department may suspend or cancel the funding round at any time before it publishes the outcome of the round. Any decision to suspend or cancel will be communicated to all applicants. The department will seek the advice of the probity adviser in making any such a decision in a fair and objective manner.

If a funding round is suspended, the department will continue or cancel the round within a reasonable timeframe.

If the department is satisfied that a suspended funding round can continue and be conducted in a fair and orderly manner, the round will continue. If a funding round is cancelled, it may be rescheduled and the updated date(s) and bid window will be published on the Energy Saver website.

#### **Disqualification of applicants**

The department reserves the right to disqualify applicants from participating in rounds for an identified period. This can be done if the department believes on reasonable grounds that an applicant has engaged in misconduct relating to any part of the bid or assessment process. In determining whether to disqualify an applicant, the department may consider whether the applicant has:

- breached any part of these guidelines
- breached a direction given by the department in relation to the program
- been involved in, or is suspected of, being involved in now or in the future, conduct intended to affect the integrity of the process.



#### Communication with applicants and seeking clarifications

The table below covers each engagement point between the department and applicants throughout the application and assessment process.

Engagement point	Description
During bid preparation stage	Applicants can seek clarification on program-related issues in writing while the round is open for bids in stage one and stage two.
	The department can determine whether to respond to the clarification. Where the department chooses to respond, it may respond by written notice to all organisations registered on the GMS (together with an anonymised copy of the request itself).
Receipt of bid	Applicants will be notified when their bid has been successfully submitted at both stages.
Eligibility: Request for more information	The department may choose to ask specific applicants for minor clarification or additional information if it is needed to deem a bid eligible. Applicants will not be given any chance to improve their overall bid. If the applicant responds to this request, the assessment panel will determine if their bid is eligible or ineligible.
Stage one: Assessment outcome	Applicants will be notified of the outcome of the eligibility and merit assessment for stage one. If successful applicants will be informed and invited to complete a more detailed stage two bid. Unsuccessful applicants will be informed and provided with feedback.
Stage two: Assessment outcome	Following the final decision of the assessment panel and NSW Government approval of successful and unsuccessful bids, the department will provide written advice to all applicants of the outcome. Successful applicants will be invited to proceed with funding agreement negotiations.
	Unsuccessful applicants will be informed of why their bid was unsuccessful and invited to apply for future funding rounds. If requested by the applicant, further feedback will be provided by the department in a follow up session at an agreed time.
Funding deed execution	The department will proceed to negotiate funding deeds with successful applicants.

Table 8 Engagement process
Applicants may seek clarifications on any aspect of the program by writing to electric.vehicles@environment.nsw.gov.au.

If an applicant believes their request for clarification is confidential, they should notify the department in the clarification request. A determination will be made by the department as to whether the request is confidential.

If the department determines the request is:

- not confidential, it will advise of this decision and the applicant may then resubmit the request as a non-confidential request
- confidential, the answer to the request (if any) will not be issued by the department to other applicants.



#### Support

Applicants have a range of support available throughout the bid process. The following resources and information sessions have been created to assist applicants when preparing their bid:

- the NSW electric vehicle fast charging master plan
- <u>the Drive electric NSW EV fast charging</u> site host prospectus
- pre-round briefing session which will be recorded and available on the Energy Saver website.

For other queries, applicants can email the department via <u>electric.vehicles@</u> environment.nsw.gov.au.

This mailbox is monitored during business hours with increased monitoring frequency during open funding rounds to ensure any bid enquiries are resolved. The department will aim to respond to all enquiries within 3 business days.

Any questions deemed to be public and relating to all bids will be published on our FAQs page, with current applicants being notified. The department will not publicise details of the applicant organisation that asked the question.



# Funding arrangements

#### Funding deed

Successful applicants must enter into a funding deed with the department to receive grant funding. The funding deed will be the legal framework that establishes the applicants' (and any other relevant parties') obligations in relation to the successful bid, including insurances.

When successful applicants are notified, the department will provide applicants with a funding deed. Applicants are encouraged to review and understand the funding deed in detail.

The department does not encourage departures from the funding deed. However, where the applicant cannot accept the terms of the funding deed, it may provide a departures table that clearly sets out and substantiates the requested departure. It is at the discretion of the department to accept or deny these departures.

Where an applicant does not submit a departures table, it will be deemed to have accepted the terms of the funding deed. Where an applicant does submit a departures table, the departures table will be taken as an exhaustive list of the applicant's comments on the funding deed.

Details of the process for management and variation of the funding deed are set out in the funding deed itself.

#### Funding offers

All offers to negotiate and any payment of funds by the department under the EV fast charging grants are subject to the execution of a funding deed with the department. All funding offers must be kept confidential until the execution of a funding deed by both parties and the department makes a public announcement of the funding recipients for the round.

Any public communication by the applicant regarding the project between the time of bid submission and execution of the funding deed can only be done with consent from the department. The department may withdraw its offer if the applicant does not comply with this requirement.



# Knowledge and data sharing arrangements

A condition of funding is agreement to deliver to a knowledge and data information sharing plan. The plan informs NSW Government and industry about the charging station's development and operation. Each plan includes the requirements of knowledge sharing activities in milestone reports that align with project milestones.

The knowledge and data information sharing plan will be shared with successful applicants and will form part of the funding deed with the NSW Government.

The objectives of the knowledge sharing activities (knowledge sharing objectives) within this plan are:

- increased skills, capacity and knowledge in EV charging technology within Australia
- increased public awareness and understanding of the EV charging infrastructure sector
- increased understanding of roadblocks to EV charging technology and solutions to address them
- increased understanding of the performance characteristics of EV charging technology in metropolitan and regional NSW
- improved understanding of the financing requirements for EV charging infrastructure
- improved data and information on grid impacts and load management for EV charging infrastructure
- improved understanding of the challenges faced in co-locating renewable energy sources and battery storage systems with EV charging infrastructure.

This plan will capture core information during the design and construction of charging stations and the utility of each charging station on a regular basis for 24 months from the moment of operation of each successful charging station. The knowledge and data sharing arrangements will be agreed to as part of the funding deed.

#### Publicity

Funding deeds will include a condition that successful applicants are obliged to participate in joint media events. Whilst not all successful applicants will be required to do so, all should be prepared to participate in a launch event or other type of promotional media event if requested.





# Further information

## Confidentiality and disclosure of information

Unless otherwise stated, any commercialin-confidence information provided by an applicant as part of, or in connection with, a registration, bid or negotiation process will be treated confidentially by the department.

The department may disclose commercialin-confidence information provided by applicants to the following parties:

- the minister or minister's office
- the NSW Ombudsman and Audit Office of NSW
- department staff or advisers
- where authorised or required by law to be disclosed.

The department will otherwise only disclose commercial-in-confidence information provided by applicants with their expressed consent.

#### Complaints

Complaints concerning the round should be emailed to <u>electric.vehicles@environment.</u> <u>nsw.gov.au</u>.

Complaints will be reviewed by the department in the first instance. If the complaint cannot be resolved within 30 business days, the contact details of the complaints and review officer from the department will be provided to advise next steps. If the complaint is still not resolved satisfactorily, the NSW Ombudsman can be engaged for external review of the administrative actions of the department.

#### Conflicts of interest

The department will administer its conflict of interest procedures, including procedures for all staff involved to declare their interests. All advisers engaged by the department, to assist in the assessment of a bid, or the preparation of funding deeds, are required to disclose any conflicts of interest they may have in relation to applicants and may be excluded from work if required under the department's conflict of interest procedure.

If applicants are aware of any actual, apparent or potential conflicts of interest they must advise the department before or when submitting a bid. Applicants must comply with any directions from the department in the management of a conflict of interest.

#### Round evaluation

The department will evaluate the round to determine how funding activities contributed to achieving the NSW Government's objectives. Information from bids and project reports may be used for this purpose. The department may also interview applicants or ask applicants for more information to help understand how the grant impacted recipients and to evaluate how effective the round was in achieving its objectives. Without limiting any specific reporting or evaluation requirements (or similar) set out in any funding deed applicants execute with the department, applicants may be contacted up to 2 years after charging stations have been constructed for more information to assist with this evaluation.



# Appendices

#### Appendix 1: Two-stage application requirements guide

Applicants are required to submit set information and documents as part of their bid. The tables below highlight what information is required at each stage of the application process.

In addition to what is listed below, the stage two application also requires updates on all amendments, change in scope or site details that may have occurred to any of the stage one requirements.

An application check list has also been prepared for applicants to assist with bid development.

Eligibility criteria	Application Stage	Required information
Eligibility S criterion A: Minimum applicant requirements	Stage one	<ul> <li>The ABN of the applicant organisation and any other partner organisations.</li> <li>Details of any partner organisations or consortium.</li> <li>Business contact details, including a primary contact for all communication regarding a bid.</li> <li>Accountant declaration.</li> <li>Verification of funding contributions from partner organisations.</li> <li>Agreement to participate in knowledge sharing activities related to applicant's project, as defined in the knowledge sharing plan.</li> <li>Evidence of ownership rights or access to intellectual property related to stations included within your bid.</li> </ul>
	Stage two	<ul> <li>The data capturing capabilities for the project during installation and operation and how data will be made available to the department.</li> <li>How the proposed data sharing systems could be used in interoperability protocols in the future.</li> <li>Timeline for knowledge sharing activities and sharing with the department, including intervals for data sharing.</li> <li>Other entities with access to station data.</li> </ul>

Eligibility criteria	Application Stage	Required information
Eligibility	Stage one	Station design:
criterion B: Eligible charging		– number of charging bays
infrastructure projects		<ul> <li>any driver amenities that will be constructed as part of the project.</li> </ul>
		Site capacity and electrical equipment:
		<ul> <li>the total connection required (in kVA) for each proposed charging station</li> </ul>
		<ul> <li>the electric vehicle service equipment (EVSE) technology to be used, including EVSE level, EVSE mode, EVSE type, hardware, software, and any capacity for future upgradability of the EVSE</li> </ul>
		<ul> <li>the rated capacity and proposed operational capacity of each charging bay in kW.</li> </ul>
		Powered by renewable energy:
		<ul> <li>the generation source/s of renewable energy to supply electricity for the project</li> </ul>
		<ul> <li>if multiple renewable energy generation sources are used, the expected percentages of annual demand to be covered by each generation source</li> </ul>
		<ul> <li>– any existing organisational policies or commitments to sourcing electricity from renewable energy.</li> </ul>
		If available, applicants should provide the following attachments:
		<ul> <li>project design drawings or blueprints of the charging station</li> </ul>
		<ul> <li>any available electrical diagrams for the charging station</li> </ul>
		<ul> <li>any available electrical diagrams or designs for a new renewable generator</li> </ul>
		• evidence of any existing agreements with renewable energy providers in Australia.

Eligibility criteria	Application Stage	Required information
Eligibility	Stage two	Technology and electrical equipment:
criterion B: Eligible charging		– the manufacturer of any proposed EVSE technology
infrastructure		– the distance of the EVSE from its electrical source
projects (continued)		<ul> <li>any existing electrical infrastructure to be included in the station.</li> </ul>
		Station design:
		<ul> <li>how the design complies with relevant Australian safety and quality standards.</li> </ul>
		Renewable energy:
		<ul> <li>the location of any renewable energy generator and/or source of large-scale generation certificates (LGCs) that supplies electricity for the project</li> </ul>
		<ul> <li>the capacity in kW of any behind the meter renewable energy generator, including expected annual generation (kWh or MWh) and expected daily generation profiles</li> </ul>
		<ul> <li>the public visibility of any renewable energy generator co-located with charging infrastructure</li> </ul>
		<ul> <li>how LGCs will be purchased and how they will be surrendered to the Clean Energy Regulator</li> </ul>
		<ul> <li>the approach to ongoing reporting and auditing processes for renewable energy.</li> </ul>
		If available, applicants should provide the following attachments:
		<ul> <li>any available electrical diagrams for the charging station</li> </ul>
		• a site layout drawing outlining the footprint of any on-site renewable energy generator.

Eligibility criteria	Application Stage	Required information
Eligibility criterion C: Payment interoperability and public accessibility	Stage one	<ul> <li>The number of charging bays accessible to drivers with a disability.</li> <li>How many hours a day the charging station will be accessible to the public.</li> <li>How the proposed charger technology will ensure payment interoperability and what payment options/gateways will be available to drivers.</li> <li>Outline payment options that will be provided to EV drivers on site.</li> <li>Describe which payment options do not require a subscription, membership or smartphone application.</li> <li>If any, conditions of access to the charging station imposed by other businesses or circumstances.</li> </ul>
	Stage two	No further information required.

Merit criteria	Application Stage	Required information
Merit criterion A: Cost and sizing of charging infrastructure and the value for money offered by your project	Stage one	<ul> <li>A proposal outlining the design of each charging station included within a bid (or, if all charging stations will be built with the same specifications, one proposal for the design of all charging stations included within a bid).</li> <li>The rationale for the number of charging bays, kVA connected to site and the total charging capacity at each charging station.</li> <li>The total capital cost estimates for the construction of each of the proposed charging stations included within a bid.</li> </ul>
	Stage two	<ul> <li>A detailed business case for a project, including revenue assumptions under multiple usage scenarios.</li> <li>The total operational cost estimates, including maintenance, customer support and other relevant costs.</li> <li>The ownership model for ongoing operations of the station, including details of who is responsible for maintenance, customer support and other location specific services.</li> </ul>

Merit criteria	Application Stage	Required information
Merit criterion B: Proposed charging station locations	Stage one	<ul> <li>The location of proposed charging stations.</li> <li>The rationale for selecting each charging station site and why it is suitable to host ultra-fast public charging infrastructure.</li> <li>Distance of the charging station to major roads.</li> <li>The status of any permission to occupy and develop sites from the landowner.</li> <li>Details of the landowner(s) of proposed charging station sites.</li> <li>If available, applicants can provide the following as attachments: <ul> <li>site layout drawings including proposed charging station location(s) and footprint.</li> </ul> </li> </ul>
	Stage two	<ul> <li>The distance to and type of local businesses and amenities near each proposed charging station.</li> <li>The details of any existing public infrastructure or buildings at the site.</li> <li>The visibility of the charging station to the public.</li> <li>If available, applicants can provide evidence to verify the status of any permission to occupy or develop a site, such as a letter of support, or agreement documentation from landowners.</li> </ul>

Merit criteria	Application Stage	Required information
Merit criterion C: Charging station design and project delivery	Stage one	<ul> <li>Project plan that includes:         <ul> <li>expected timeframes for each stage and workstream of project development</li> <li>project budget and assumptions, including contingency plans to manage cost overruns</li> <li>total capital cost estimates, including, but not limited to, equipment, hardware, site lease, network upgrades, site security and construction/installation</li> <li>the expected timeframes for maintenance and customer service at each charging station.</li> </ul> </li> </ul>
	Stage two	<ul> <li>Project development plan including comprehensive information for each delivery stage across all charging stations proposed in the bid.</li> <li>An overview of any charging management systems in place and how they work.</li> <li>Overview of key supplier agreements.</li> <li>Status and approach to development approval processes, including engagement with local councils and other regulatory bodies.</li> <li>Risk management plan, including detailed assessment of project risks and mitigation strategies.</li> <li>Stakeholder engagement plan.</li> <li>Work health and safety management system plan.</li> <li>Evidence of station accessibility, public accessibility per day, and accessibility to heavy vehicles.</li> <li>The anticipated hardware to be used in the construction of chargers and their warranty conditions.</li> </ul>

Merit criteria	Application Stage	Required information
Merit criterion D: Network access	Stage one	<ul> <li>The expected annual station load across the next 5 years, including expected load profiles and any correlation with onsite electricity sources such as battery storage or renewable generators.</li> <li>The status of a project's new connection or connection alteration approval from the local DNSP.</li> </ul>
	Stage two	<ul> <li>The distance to nearest substation and the proposed connection point to the network.</li> <li>The available network capacity in the proposed location.</li> <li>Any existing working relationship an applicant might have with local DNSP.</li> <li>Applicants may provide evidence of engagement status with DNSPs, such as a letter verifying the connection status from a DNSP or copies of correspondence with the DNSP.</li> </ul>

Merit criteria	Application Stage	Required information
Merit criterion E: Renewable energy and battery storage	Stage one	<ul> <li>If included within the application, applicants are required to provide a clear description of the following:</li> <li>the capacity of any proposed renewable energy or battery storage system</li> <li>how the battery system(s) will be used to provide load management and grid support (if any).</li> </ul>
	Stage two	<ul> <li>Renewable energy</li> <li>The capacity and the power output of renewable energy sources proposed.</li> <li>The manufacturer of the renewable energy system/s.</li> <li>The location of the renewable energy system/s.</li> <li>A proposal outlining the installation of renewable energy sources on site.</li> <li>If available, applicants must attach the following: <ul> <li>any available electrical diagrams or technical specifications for the renewable energy system/s</li> <li>a map outlining the footprint of any proposed renewable energy system/s.</li> </ul> </li> <li>Battery storage</li> <li>Details relating to how installation is expected to comply with the battery install standard AS/NZS 5139.</li> <li>The manufacturer of the battery storage system.</li> <li>If available, applicants must attach the following: <ul> <li>any available electrical diagrams or technical specification of the battery storage system.</li> </ul> </li> </ul>

Merit criteria	Application Stage	Required information
Merit criterion F:	Stage one	Previous performance
Applicant capabilities and capacity		• Overviews of similar projects by the lead organisation in the bid, including whether timeframes and budget expectations were realised.
		• Overviews of similar projects by supporting organisations in the bid, including whether timeframes and budget expectations were realised.
		Funding strategy
		• A statement of applicant's and/or partner organisations' financial capacity to meet expected project budget and costs during development and operation.
		• The financing strategy for all capital funds required for the project.
		Sources of capital funding.
		Skills and experience
		• CVs of key personnel that will manage the design and construction of the charging stations.
		<ul> <li>Details of key supplier agreements for operational services.</li> </ul>
		<ul> <li>Information relating to how these projects will be managed to be delivered on time and to budget.</li> </ul>
		• Details of, or the ability to procure, relevant staff associated with key project stages. This can be shown through either providing evidence of previously conducted procurement processes of a similar nature or previous projects completed with key internal staff. This evidence could include:
		– their financial management skills and capabilities
		<ul> <li>their technical and engineering experience in charging infrastructure or other major electrical infrastructure projects</li> </ul>

Merit criteria	Application Stage	Required information
Merit criterion F: Applicant capabilities and capacity (continued)	Stage one (continued)	<ul> <li>their risk management skills and capabilities</li> <li>their experience in charging network coordination, or coordination of other network-based customer services</li> <li>their capacity for delivering charging network maintenance</li> <li>their capacity and experience in offering customer support services.</li> </ul>
	Stage two	<ul> <li>Details of key supplier agreements for operational services.</li> <li>Applicants must attach the following: <ul> <li>evidence of financial capacity, or plan to meet expected project budget and costs</li> <li>evidence of proposed project costs.</li> </ul> </li> </ul>

Merit criteria	Application Stage	Required information
Merit criterion I: Support jobs and economic growth	Stage one	Applicants may provide a response on any anticipated economic benefits arising from their proposed project.
	Stage two	<ul> <li>The expected number of jobs that will be created over the lifetime of all stations proposed within a bid.</li> <li>Outline anticipated suppliers that will be engaged in the construction of charging stations.</li> <li>Outline all activities planned to take place in regional NSW.</li> <li>Provide anticipated investment in NSW and investment in regional NSW.</li> </ul>



#### Appendix 2: Eligible expenditure

EV fast charging grants funding can only be used for eligible expenditure on charging stations. Eligible expenditure is restricted to the capital costs related to charging stations and is incorporated in the funding deed. Where an applicant is in any doubt as to the eligibility of proposed expenditure, the applicant must bring the matter to the department for decision. The department's determination on the eligibility of expenditure will be final.

#### General principles

For the purposes of these grants, the following principles apply to eligible expenditure:

- expenditure related directly to the construction of the approved charging stations
- non-cash contributions (in-kind contributions) are not preferred and should not be included in the budget. Applicants/ recipients will have the opportunity to request approval from the department for inclusion of in-kind expenditure in the project budget. Requests will need to demonstrate how in-kind expenditure could meet eligible expenditure
- expenditure for works that have been carried out before the signing of the funding deed are only eligible if written approval has been provided by the department
- expenditure is ineligible for works that have been carried out after the completion date specified in the funding deed
- opportunity costs are any benefits or production lost due to the allocation of resources to the charging station ahead of any other possible activities by the recipient, and is not eligible expenditure

- expenditure can only be allocated to resources and staff time related to the construction of charging stations that are funded through this program, and not elsewhere in the recipient's organisation or consortium
- related party transactions must be treated on an at-cost basis, without any cost markup, unless the recipient can demonstrate to the satisfaction of the department that the transaction has been calculated on an arm's-length basis
- generally accepted accounting principles are to be followed and it must be possible to track expenditure relating to the charging station/s through a recipient's accounting system to meet the financial reporting and audit requirements in the funding deed.

#### Eligible expenditure

For the purposes of the EV fast charging grants, the following is considered eligible expenditure:

- administrative expenses including expenses incurred on communications, accommodation, computing facilities, travel, recruitment, printing and stationery, where such expenses are related directly to the development of the charging stations
- expenditure for plant installed for the charging station/s at the full delivered cost of the plant GST inclusive, less any GST credits the recipient is entitled to claim
- expenditure on plant used for the construction of a charging station/s, calculated on the basis of hire or lease costs, and running costs directly related to the construction of the project, such as rent, power, fuel and repairs and maintenance

- expenditure on legal, audit and accounting costs related directly to the project
- expenditure such as relevant licence fees or intellectual property purchase costs, where the recipient needs to access specific technology to carry out the development of the charging station/s.

#### Labour expenditure

Eligible labour expenditure is the gross amount paid or payable to an employee of the recipient entity for work related to the charging stations. Eligible salary includes any components of the employee's total remuneration package that are itemised on their pay-as-you-go annual payment summaries submitted to the Australian Taxation Office.

Recipients must provide evidence to show the amount of time that an employee spent on the development of charging station/s. Evidence to support eligible expenditure on labour could include timesheets, job cards, or diaries. Labour costs cannot be claimed based on an estimation of the employee's worth to the company, where no cash has changed hands.

#### **Contract expenditure**

Eligible contract expenditure is the cost of any activities or equipment to support the project performed for the recipient by another organisation. Work to be performed on a charging station must be the subject of a written contract, including a letter or purchase order, which specifies the nature of the work to be performed for the recipient and the applicable fees, charges and other costs payable. The written contract must be executed before the start of the works carried out under the contract. It is not a requirement for contracts to be in place at the time an applicant submits a bid to the department. However, for major items of contract expenditure, such as purchases of major items of hardware to be incorporated in the charging station/s, applicants will be expected to have some form of documentary evidence, such as written quotes from suppliers, to substantiate the expenditure included in the financial estimates.

Where the contractor and the recipient are not at 'arm's-length', the amount assessed for work performed will be an amount considered to be a reasonable charge for that work and contain no unacceptable overheads and no element of 'in group profit'. Organisations considered not at 'arm's-length' include related companies and companies with common directors or shareholders.

#### **Overseas expenditure**

Department funded expenditure outside of Australia incurred by a recipient, other than for equipment or materials, must be limited to no more than 10% of the total department grant funds. In exceptional circumstances, recipients must justify extra overseas spend, with the department agreeing in writing before the expenditure takes places.

Following execution of a funding deed with NSW Government, project expenditure on goods and services overseas may be subject to approval by the department as specified in the funding deed.

#### Ineligible expenditure

Ineligible expenditure includes, but is not limited to, the following:

- activities that directly relate to NSW Government planning assessment processes, such as:
  - biodiversity studies
  - heritage studies
  - noise, air quality and traffic studies
  - water, waste and hazardous material studies.
- activities that directly relate to the cost of preparing a bid for the purposes of co-funding charging stations
- expenditure related to the general operations and administration of the recipient entity that the recipient could reasonably be expected to take on in the normal course of business. This includes, but is not limited to:
  - the electricity charges associated with existing charging stations operated by a recipient, or stations co-funded by the NSW Government
  - electricity demand charges of all current and future charging stations
  - taxes related to current and future charging stations
  - any foreign exchange/forex associated costs.
- expenditure on activities that are the responsibility of local, state, territory or Commonwealth government agencies
- interest on loans for new and pre-existing capital items used for the charging station/s

- expenditure on the acquisition of land for charging station/s
- sales or promotional activities that do not directly support the successful completion of the charging station/s
- membership fees, donations, or any other expenditure the department determines does not directly support the successful completion of the charging station/s.

#### Accounting systems

Recipients are required to have in place suitable accounting systems and provide to the department assurances that the accounting system used by the recipient and any consortium partners allows for the separate and accurate identification of contributions and eligible expenditure on the charging station/s.

A clear audit trail of all program funding contributions and eligible expenditure must also be available on request and as required to meet the requirements in the funding deed.



#### Appendix 3: NSW electric vehicle fast charging master plan: summary

Based on lessons learnt internationally, the development of master planning for charging infrastructure at a state level is more beneficial for the community than planning for fast charging by city or town. The NSW electric vehicle fast charging master plan was developed as the first step in the roll out of guaranteed widespread charging across the state.

The master plan is the key NSW Government information source on all existing and indicative future fast charging infrastructure in NSW (50 kW and above). It will also assist industry and planners identify ideal locations for public fast charging stations.

The master plan has been created to serve as a road map to guide and develop fast charging infrastructure in the next 10 years and beyond. The objectives of the master plan are to:

- identify optimal locations for development of fast charging infrastructure (50 kW and above) based on technical, social and economic considerations
- guide the expansion of future charging infrastructure beyond the activities of the NSW Government
- act as source of information on all existing charging infrastructure (50 kW and above).

The master plan map is a regularly updated online mapping tool available to the public. It has been designed to help policy makers, CPOs, energy utilities and tourism operators to gain a mutual understanding and plan the best possible outcomes for EV public fast charging, and in doing so, driving greater BEV adoption in the long term.

The master plan has identified optimal zones and priority zones to locate fast charging infrastructure over the funding rounds of the grants.

- **Optimal zones** are the key locations that are required to support EV uptake across NSW, based on an analysis of the key features for the placement of future public fast charging stations.
- **Priority zones** are a prioritised list of zones selected from the optimal zones for development by government and industry over the next 5 to 10 years.
- **Priority zones** have been separated into 2 tiers **green zones** and **blue zones** based on the gradual build of the state's charging network. This helps make sure there are no gaps in the network as stations are constructed.

A detailed methodology and scientific quantitative analysis was used to determine optimal and priority zones. The data analysed included:

- projections of EV adoption in NSW
- traffic movements
- tourism
- vehicle ownership
- vehicle use types (for example, private vs taxi)
- vehicle performance
- local points of interest
- available substation capacities
- business
- population
- income
- dwelling structure
- GPS data
- existing DC fast charger data.

The number of charging bays and optimal charging zones may evolve over time if different assumptions or inputs are used in future map updates.

The master plan can be accessed at energysaver.nsw.gov.au/EVmasterplan.



#### Appendix 4: NSW priority zones

The priority zones identified on the master plan are key to the first round of the grants. Applicants are required to select charging station locations that fall within a priority zone. This appendix lists all green zones and blue zones identified on the master plan.

The maps provided in this appendix are indicative of the zone locations, but do not map the geographic area selected for each zone. The maps and list of priority zones below should be used together with the online master plan map to understand the full coverage of each priority zone. The master plan map can be accessed at: energysaver.nsw.gov.au/EVmasterplan.

#### **Priority zones**

Priority zones in regional and metropolitan areas have been identified based on the multi-criteria described in Appendix 3. These priority zones are a filtered list of the optimal zones. In regional areas, priority zones are assigned to major towns and journey enablement zones separately. Journey enablement zones have been created between major towns and centres to ensure there are sufficient charging options to allow travel across NSW.

#### Metropolitan priority zones

The metropolitan priority zones shown in the following images (Figure 6, Figure 7, Figure 8 and Figure 9) have been separated into green and blue zones to ensure the network is built consistently and in logical order.



#### Greater Sydney priority zones



Figure 6 Zones in Greater Sydney

#### Green zones

Abbotsford, NSW Alexandria, NSW Arncliffe, NSW Artarmon, NSW Ashfield, NSW Asquith, NSW Auburn, NSW Bardwell Park, NSW Baulkham Hills, NSW Beaumont Hills, NSW Berala, NSW Blacktown, NSW Bligh Park, NSW Bondi Junction, NSW Bondi, NSW Bonnet Bay, NSW Brighton-le-sands, NSW

Broadway, NSW Cabramatta, NSW Campbelltown, NSW Caringbah, NSW Carlingford, NSW Carramar, NSW Castle Hill, NSW Casula, NSW Chatswood, NSW Colyton, NSW Constitution Hill, NSW Cromer, NSW Crows Nest, NSW Darlinghurst, NSW Denistone East, NSW Denistone, NSW Eastwood, NSW Elanora Heights, NSW Elizabeth Bay, NSW

Emu Heights, NSW Engadine, NSW Homebush Bay, NSW Hurstville, NSW Kings Langley, NSW Lane Cove, NSW Macquarie Park, NSW Manly, NSW Maroubra, NSW Miranda, NSW Moore Park, NSW Mount Druitt, NSW North Turramurra, NSW North Sydney, NSW Parramatta, NSW Punchbowl, NSW Richmond, NSW Strathfield, NSW Sydney, NSW

#### Blue zones

Abbotsbury, NSW Alfords Point, NSW Allambie. NSW Allawah, NSW Annandale, NSW Annangrove, NSW Ashbury, NSW Ashcroft, NSW Avalon, NSW Balgowlah, NSW Balmain, NSW Banksmeadow, NSW Bankstown, NSW Bardia. NSW Beecroft, NSW Belmore. NSW Belrose, NSW Beverley Park, NSW Beverly Hills, NSW Birrong, NSW Blaxcell, NSW Boronia Park, NSW Bow Bowing, NSW Breakfast Point, NSW Bronte, NSW Burwood, NSW Caddens. NSW Cammeray, NSW Campsie, NSW Carnes Hill, NSW Castle Cove, NSW Cherrybrook, NSW Chester Hill, NSW Chifley, NSW Chippendale, NSW Chullora. NSW Clemton Park, NSW Clovelly, NSW

Colebee, NSW Collaroy, NSW Concord West, NSW Coogee, NSW Curl Curl, NSW Currans Hill, NSW Daceyville, NSW Darling Point, NSW Dundas, NSW East Killara, NSW East Lindfield, NSW Eastern Creek, NSW Eastlakes, NSW Enmore, NSW Epping, NSW Erskine Park, NSW Fairfield, NSW Fairlight, NSW Forest Lodge, NSW Forestville, NSW Frenchs Forest, NSW Glenmore Park, NSW Gordon, NSW Gymea, NSW Haberfield, NSW Homebush, NSW Kangaroo Point, NSW Katoomba, NSW Kensington, NSW Kingsgrove, NSW Kirribilli, NSW Kurraba Point, NSW Lakemba, NSW Leichhardt, NSW Lewisham, NSW Lugarno, NSW Marrickville, NSW Mascot, NSW Mona Vale. NSW Mosman, NSW

Newport, NSW Normanhurst, NSW North Parramatta, NSW Northbridge, NSW Old Toongabbie, NSW Padstow, NSW Pennant Hills, NSW Pymble, NSW Pyrmont, NSW Redfern, NSW Revesby, NSW Rozelle, NSW Seaforth, NSW Smithfield, NSW St Ives, NSW St Peters, NSW Summer Hill, NSW Warriewood, NSW Waterloo, NSW West Pennant Hills, NSW Woollahra, NSW



#### Central Coast NSW priority zones

Figure 7 Zones in Central Coast

#### Green zones

Alison, NSW Avoca Beach, NSW Bateau Bay, NSW Blackwall, NSW Bucketty, NSW Canton Beach, NSW

#### Blue zones

Booker Bay, NSW Erina Heights, NSW Fountaindale, NSW

#### Newcastle NSW priority zones



Figure 8 Zones in Newcastle

#### Green zones

Adamstown, NSW Bar Beach, NSW Belmont, NSW Birmingham Gardens, NSW

#### Blue zones

Arcadia Vale, NSW Ashtonfield, NSW Bennetts Green, NSW Cameron Park, NSW Eleebana, NSW Georgetown, NSW Kooragang, NSW Merewether, NSW

Appendices

#### Wollongong NSW priority zones

Bringelly Kogarah Werombi Kirrawee Nattai Airds Heathcote Nattai State Royal National **Conservation Area** Waterfall Park Picton Lilyvale Dharawal Appin National Park Wilton Nattai Coalcliff **National Park** Buxton Bargo Cataract Bargo State **Conservation Area** Bellambi Avon Reservoir Wollongong Dombarton Bowral Windang Moss Vale Blackbutt Avoca Tongarra Dunmore Budderoo Bombo Meryla Kiama Jerrara

Figure 9 Zones in Wollongong

#### Green zones

Coniston, NSW

#### Blue zones

Albion Park, NSW Avondale, NSW Barrack Heights, NSW Bellambi, NSW Blackbutt, NSW Bombo, NSW Cringila, NSW Kemblawarra, NSW

#### Regional priority zones

The regional priority zones are shown in the images below (Figure 10, Figure 11, Figure 12 and Figure 13). The maps include chargers in regional towns as well as journey enablement chargers per region. In each of these images, green and blue zones are shown, which represent both regional towns and journey enablement zones. Below each image, the green and blue zones are listed.



#### South East NSW priority zones

Figure 10 South East NSW zones

#### **Green zones**

Bathurst, NSW (3) Goulburn, NSW (6) Griffith, NSW (7) Orange, NSW (15) Queanbeyan, NSW (17) Wagga Wagga, NSW (19) Bega, NSW (22) Cooma, NSW (22) Cooma, NSW (24) Cowra, NSW (25) Forbes, NSW (25) Forbes, NSW (27) Molong, NSW (32) Narooma, NSW (33) Narrandera, NSW (34) Parkes, NSW (35) Tarcutta, NSW (36) Ulladulla, NSW (38) West Wyalong, NSW (39)

#### Blue zones

Bargo, NSW (1) Batemans Bay, NSW (2) Colo Vale, NSW (4) Douglas Park, NSW (5) Jilliby, NSW (8) Jindabyne, NSW (9) Kiama, NSW (10) Merimbula, NSW (11) Mittagong-Bowral, NSW (12) Mudgee, NSW (13) Nowra, NSW (14) Picton, NSW (16) The Oaks, NSW (18) Yass, NSW (20) Young, NSW (20) Young, NSW (21) Condobolin, NSW (23) Dunedoo, NSW (23) Dunedoo, NSW (26) Goolgowi, NSW (26) Gundagai, NSW (29) Hillston, NSW (30) Gundagai, NSW (29) Lockhart, NSW (31) Temora, NSW (37)

#### South West NSW priority zones



Figure 11 South West NSW priority zones

#### Green zones

Albury, NSW (1) Balranald, NSW (3) Buronga NSW (4) Euston, NSW (6) Hay, NSW (7) Henty, NSW (8) Jerilderie, NSW (10) Maude, NSW (11)

#### Blue zones

Moama, NSW (2) Deniliquin, NSW (5) Holbrook, NSW (9) Pooncarie, NSW (12)

#### North East NSW priority zones



Figure 12 North East NSW priority zones

#### **Green zones**

Armidale, NSW (1) Coffs Harbour, NSW (6) Port Macquarie, NSW (12) Singleton, NSW (13) Tweed Heads, NSW (17) Glen Innes, NSW (22) Moree, NSW (26) Muswellbrook, NSW (27) Narrabri, NSW (28) Willow Tree, NSW (29)

#### Blue zones

Ballina, NSW (2) Barraba, NSW (20) Boambee, NSW (20) Bingara, NSW (3) Branxton, NSW (21) Byron Bay, NSW (4) Byron Bay, NSW (4) Grafton, NSW (7) Gunnedah, NSW (23) Inverell, NSW (24) Kingscliff, NSW (8) Lennox Head, NSW (9) Lismore, NSW (10) Maclean, NSW (25) Nelson Bay, NSW (11) Tamworth, NSW (14) Taree, NSW (15) Terranora, NSW (16) Woodville, NSW (19)

#### North West NSW priority zones



Figure 13 North West NSW priority zones

#### Green zones

Dubbo, NSW (2) Bourke, NSW (3) Coolabah ,NSW (8) Coonabarabran, NSW (9) Gilgandra, NSW (12) Nyngan, NSW (17)

#### Blue zones

Cobar, NSW (1) Brewarrina NSW (4) Broken hills, NSW (5) Burren junction, NSW (6) Collarenebri, NSW (7) Coonamble, NSW (10) Emmdale, NSW (10) Emmdale, NSW (11) Hermidale, NSW (13) Ivanhoe, NSW (14) Little Topar, NSW (15) Menindee, NSW (16) Walgett, NSW (18) Wilcannia, NSW (19)

#### Appendix 5: Charging technology

The grants are designed to advance the rollout of fast and ultra-fast DC charging in NSW. This section covers:

- the expected minimum performance standards for additional charging bays beyond the mandated charging bays specified in the eligibility criteria
- an overview of the current and future charging technology that should be considered by applicants
- components of a charging system.

### Minimum performance standards for charging bays

The ability to charge quickly and reliably in DC is a key feature to BEV uptake in NSW. While most trips that drivers take fall well below the range of a BEV, there are several situations where DC charging is vital to minimise the time spent charging, such as interregional travel and commercial use. Fast DC charging is an important value proposition for drivers and operators who require minimal stopping time. As at August 2021, there were only just over 180 DC chargers in NSW.

Charging bays proposed for charging stations are expected to be higher capacity EVSE level 3 chargers as outlined in the eligibility section of these guidelines. Level 3 chargers range from 50 kW to 350 kW and use DC charging. Charging bays are expected to be equipped with FCAI recommended DC charging types, which is either CHAdeMO or CCS Type 2. While it is common for fast chargers to offer charging services below the rated capacity of the EVSE through software and hardware curtailment, it is expected that the minimum performance to be offered by any charging bay funded in this round is no less than 22.5 kW. It is also expected that at least 2 ultra-fast charging bays at a charging station will be available at any given time to offer charging services at 175 kW or above.

### Overview of current and future technology

Future proofing the public fast charging infrastructure in NSW is an important factor when considering appropriate charging network design. Different charging technologies and capacities assist in building an ideal network across the state.

Ultra-fast EVSE level 3 chargers capable of delivering 350 kW of power are already in the market. This is already more power than all currently available BEVs in the Australian market can handle, due to their onboard maximum charge rates. As the supply chain for this technology matures, installation costs are expected to come down. High powered chargers of this nature will enable BEVs to take long distance trips with shorter stops, especially for vehicles with larger batteries.

Several factors are helping charging technology and installation mature in NSW. Falling hardware costs, the progress of the 'experience curve' of installation industries and coordination with energy distribution networks are just some of the contributing factors. Falling costs will remove barriers to the rollout of infrastructure, accelerating improvements to the NSW network. The impact of future technologies is a significant and fundamental consideration when determining the design of fast public charging infrastructure. If charging network operators and other decision makers in NSW are not aware of trends in vehicle technology and charger technology, charging networks risk underperforming and failing to effectively facilitate travel throughout the state.

At the time of writing, the majority of existing BEVs in Australia have a maximum charging speed at or below 100 kW, which is well below the capacity of the ultra-fast 350 kW chargers. However, this is moving rapidly to a new baseline normal of 200 kW or beyond. Australia currently receives new BEV models later than other right-hand-drive markets, where a growing number of new generation BEVs are available with 200+ kW maximum charging speeds. As charging technology advances, the charging speeds of various models are expected to increase into the future.

Applicants to the EV fast charging grant round are encouraged to plan for upgrades to their charging stations in the future as more advanced technology becomes available at more affordable price points and the charging speeds of BEVs increase.



### Components of an EV charging system

Key components of the typical EV charging system are presented below.

#### Electricity supply (for EVSE level 3)

The energy supply system takes high voltage (HV) AC from the grid, converts it to the desired voltage, converts the current to DC and distributes it to the charging stations. This system can be supplemented with onsite battery storage and solar PV generation.

#### Electric vehicle supply equipment (EVSE)

The core of every charging station is the EVSE, consisting of an external charger with user interface, a cable and plug.

EVSE can be classified by the way that they deliver power to the vehicle, either AC or DC, and are commonly called AC chargers or DC chargers.

AC chargers are relatively slow with low power.

DC chargers bypass the onboard charger and can deliver much higher power. Most cars will have a limit to the power that they accept, with the current top model BEVs able to handle DC charging at about 250 kW. New models are set to increase this capability continuously. Fast DC chargers often resemble petrol bowsers that contain AC/DC converters and cooling systems.



Figure 14 Components of electric vehicle supply equipment

#### **Connectors and plugs**

The connector for AC charging is either fixed to the EVSE or detachable (usually carried in the BEV). The Type 2 plug has become the standard AC plug used in Australia.

The connector for DC charging is always attached to the EVSE. There are two types of DC plugs in use in Australia, the CHAdeMO or CCS Type 2. Globally, the CCS plug type is gaining a market lead, however, many DC EVSE are installed with one of each plug type.

Tesla uses a proprietary plug for some legacy models based on the Type 2 design that carries both AC and DC power. Tesla has fit out its Supercharger network with both current Type 2 DC plug and the proprietary plug.

#### Plug Type 2 (Mennekes)



Level 1 and Level 2 AC:

- vehicle-charger communications
- single-phase charging up to 14.5 kW
- three-phase charging up to 43.5 kW
- compatible with CCS vehicle socket
- theft-proof locking pin.

#### Plug Combined Charging System (CCS)



Level 3 DC:

- delivers high power, over 50 kW
- uses power line communication (PLC) the standard grid communication system.

#### Plug "Charge de Move" (CHAdeMO)



#### Level 3 DC:

- delivers high power, over 50 kW
- uses CAN (Controller Area Network) the 'standard' in-vehicle communication protocol.

#### **Energy management system**

A charging system may comprise of multiple EVSE with an energy management system that performs the following tasks:

- integrate vehicle charging with other loads
- prioritise vehicle charging sessions over one another
- limit total power consumption across the charging station
- data collection/analysis
- maximise consumption of on-site solar and battery storage.

#### Connectivity

Many EVSE are networked and compatible with the Open Charge Point Protocol (OCPP). This allows the charger operator to perform the following tasks:

- user authentication via access card or cloud
- report and aggregate usage data
- manage time of use controls
- update firmware
- monitor charger status (occupied or available)
- monitor charger performance
- handle billing for commercial chargers.



#### Appendix 6: Accountant declaration

### Drive electric NSW EV fast charging grants Accountant declaration

Role of person making declaration	
Name	
Contact details	
Qualification	Chartered Accountant
	Certified Practicing Accountant
	CPA Australia
	Chartered Accountants Australia and New Zealand
	Institute of Public Accountants
Membership number	
Applicant's name	
Applicant's ABN	

#### I declare that:

	On the basis of the evidence has supplied to me, I consider that is able to fund its share of the total cost of the proposed project from the following source of funding -
	This opinion is based on the applicant's share being out of total proposed project expenditure of
The	e applicant is part of a consolidated group for tax purposes. Yes $\square$ No $\square$
Sig	gnature

Signed on this \_\_\_\_\_ day \_\_\_\_\_ of 20 \_\_\_\_\_

#### Appendix 7: Definitions

ABN: Australian Business Number.

**Applicant:** An eligible organisation or consortium of organisations as defined in Eligibility criterion A, that applies for grant funding under the EV fast charging grants.

**Battery electric vehicle (BEV):** A vehicle that is fully electric and powered by an electric drivetrain. BEVs do not include plug-in hybrid or hybrid vehicles.

**Behind the meter:** When electrical equipment is located on a site before the electricity meter and is not connected to the grid.

**Bid:** An application for funding from the NSW Government's EV fast charging grants made up of a proposal of one or more charging stations.

**Charging bay:** A designated parking spot where a single EV can charge using the EVSE of a charging station.

**Charge point operator (CPO):** A charging station owner and/or operator.

**Charging network:** A charging infrastructure system made up of multiple charging stations across NSW for the purpose of providing recharging at convenient locations.

**Charging station:** A publicly accessible location that can charge an EV, containing one or more charging bays, inclusive of all necessary infrastructure and EVSE to support BEV and PHEV charging.

**Co-fund:** Financial support for successful project/s under the EV fast charging grants, provided by the department and an applicant.

#### Commercial-in-confidence information:

Any information that discloses applicants' financing arrangements, cost structure, profit margins or full base case financial model; intellectual property for which applicants have an interest; any matter the disclosure of which would place an applicant at a substantial commercial disadvantage.

**Conflict of interest:** A situation where a person makes a decision or exercises a power in a way that may be, or may be perceived to be, influenced by either material personal interests (financial or non-financial) or material personal associations.

**Department:** The NSW Government department which has the responsibility for the administration of the EV fast charging grants, which at the time of publishing of these guidelines is the NSW Department of Planning and Environment.

#### Distributed network service provider (DNSP):

The entity who engages in the activity of owning, controlling or operating an electricity transmission or distribution system and who is registered by AEMO as a network service provider.

**Eligibility criteria:** The eligibility criteria for bids set out in table 6 on page 21 of these guidelines.

**Eligible expenditure:** Expenditure of the kind defined as eligible in Appendix 2 of these guidelines.

**Electric vehicle service equipment (EVSE):** a unit of fuelling infrastructure that supplies electric energy for the recharging of electric vehicles, such as BEVs. It is usually the unit that sits outside the vehicle on the wall or ground. **EVSE level:** The power level (in kW) of a charging outlet in an EVSE.

**EVSE mode:** This is used to describe the safety protocol between the BEV and charging station.

**EVSE type:** The connector or plug being used to charge a BEV.

**Funding deed:** An agreement between the department and a recipient under which grant funding is provided to the recipient.

**Funding cap:** The maximum amount of funding a successful applicant may receive from the department, which is capped at a maximum of 50% of the total capital cost of construction for all charging stations included within a bid.

**Geographic regions:** The 8 geographic regions that make up regional and metropolitan NSW, as described in table 4 on page 17.

**Guidelines:** This document which outlines the approved framework for the operation and administration of the EV fast charging grants. This document will be amended and updated as needed to be current and accurate.

**Hybrid electric vehicle (HEV):** A vehicle that is powered by petrol and electricity. The electricity is generated by the car's own braking mechanism to recharge the battery. This is known as 'regenerative braking'. A HEV cannot be plugged in to charge.

**In front of the meter:** When electrical equipment is connected directly into the electricity network, with a separate network connection to any electricity customer or load.

**km:** Kilometre (km) a unit of length, the common measure of distance equal to 1,000 meters.

Knowledge and data information sharing

**plan:** A plan agreed to by the department conditional to a funding deed. It affirms the knowledge and data sharing activities required of funding recipients.

**kVA:** A measure of apparent power representing 1,000 Volt-Amperes.

**kW (kilowatt):** Refers to 1,000 watts and used as a unit of measurement to express the output of power, such as for EVSE or a BEV's electric motor.

**kWh (kilowatt-hours):** A unit of energy marking the energy transferred in one hour by one kilowatt of power. BEV battery capacity is measured in kWh.

**Manufacturer:** Any natural or legal person who manufactures a product or has a product designed or manufactured and markets that product under their name or trademark.

Electric vehicle fast charging master plan:

A mapping tool for charging infrastructure in NSW. To help policy makers, charging infrastructure providers, energy utilities and tourism operators gain a mutual understanding of a future NSW charging network and plan the best possible outcomes for public fast charging in NSW.

**Merit criteria:** The merit criteria set out in table 7 on page 24 of these guidelines.

**Minister:** Refers to the relevant minister that has responsibilities to implement the NSW Electric Vehicle Strategy.

**MWh:** Megawatt hour, a unit of energy equal to 1,000 Kilowatt hours (Kwh). It is equal to 1,000 kilowatts of electricity used continuously for one hour.

**NEM:** National Electricity Market.

**NSW:** The state of New South Wales.

**Network:** Unless stated otherwise, the electricity system operated by either a distribution network service provider or a transmission network service provider.

**Off-site:** Taking place or situated away from a particular place or site.

**On-site:** Taking place or situated at a particular place or site.

**Optimal zones:** The key locations identified in the master plan that are required to support EV uptake across NSW, based on an analysis of the key features for the placement of future public fast charging stations.

**Original equipment manufacturer (OEM):** A company that manufactures and/or imports equipment, such as vehicles or EVSE.

**Passenger vehicle (PV):** A vehicle designed primarily for the carriage of passengers, such as hatches, sedans and wagons.

**Plug-in hybrid electric vehicle (PHEV):** Vehicles that use both fossil fuel (petrol or diesel) and electricity to power both an internal combustion engine and electric motor. PHEVs have a fuel tank and an electric battery for energy storage. PHEVs can be recharged by plugging the vehicle into electric charging sources and refuelled at conventional service stations.

**Priority zones:** A prioritised list of zones selected from the list of optimal zones for charging station development over the next 5 to 10 years as displayed in the NSW electric vehicle fast charging master plan.

- **Green zones:** A short list of priority zones that are essential to creating a minimum viable network of fast charging stations across NSW.
- **Blue zones:** The remaining list of priority zones that are required to create a comprehensive charging network as outlined under the EV strategy.

**Project:** A project described in a bid for funding under the EV fast charging grants.

**Renewable energy:** Energy that is produced from natural resources that do not run out when used, for example, solar or wind power.

**Smart chargers:** Chargers that share data connections with the vehicle being charged and a charging operator. This data is hosted by a cloud-based application that helps monitor, manage and restrict the use of charging devices to manage energy consumption. Smart chargers can adjust the time of day that EVs are charged and the rate of charging. By adopting smart chargers, vehicle owners can better manage their charging requirements, achieve cost savings and reduce the impact that EVs have on the electricity grid.

**Total cost of ownership (TCO):** The whole of life cost of a vehicle. There are several inputs into a TCO calculation, such as purchase price, fuel costs, maintenance and taxes.

**Total project value (TPV):** Means the total project cost that involves the capital costs and costs of services procured for the construction of a project, but excludes finance charges, land costs, mobilisation fees to the operations contractor and the costs payable to the distributor, national transmission company and/or a contractor for the distribution or transmission connection works.

#### Drive electric NSW EV fast charging grant



For more information www.energysaver.nsw.gov.au/EVfastcharging electric.vehicles@environment.nsw.gov.au