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Leading the Charge

Eastern Suburbs Electric Vehicle Infrastructure Strategy 2023

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Table of Contents

Executive Summary

The adoption of electric vehicles (EVs) will bring about significant societal, environmental, and economic benefits[1]. Most importantly, the transition to EVs is the single largest change toward achieving net-zero emissions in the Eastern Suburbs, with the potential to decrease emissions by 33% by 2050 (excluding grid emission reductions)[2].

This strategy outlines our vision, evaluates the required infrastructure through to 2030, and determines where and how to implement such infrastructure. The proposal illustrates how Council, in partnership with the private sector, as well as Federal and State Governments, can spearhead the adoption of EVs by accelerating the rollout of public EV charging infrastructure. Although electrification is also taking place for other modes of transportation such as Council fleet, garbage trucks, buses, and e-bikes, the focus of this strategy is primarily on passenger vehicles.

EV uptake in the Eastern Suburbs is rapidly growing, with the number of vehicles doubling year on year. It is anticipated that this exponential growth will continue as more EV models become available and reach lifecycle cost parity. As of March 2023, there were 702, 671, and 724 battery electric vehicles in Randwick, Waverley, and Woollahra LGAs, respectively, equating to a total of 2,097 across the three councils. By 2025, it is projected that there will be roughly 10,000 EVs on local roads, and more than 35,000 by 2030, excluding EV drivers visiting from other LGAs.

The Strategy acknowledges that access to charging stations is a significant impediment to EV adoption, with over 60% of Eastern Suburbs residents living in apartments or townhouses, and more than 50% renting. The NSW Government estimates that the proportion of residents which require access to on-street charging is 82% in Waverley, 52% in Woollahra and 42% in Randwick LGAs - so whilst most EV charging occurs at home or work, this is not an option for a significant portion of the Eastern Suburbs.

Based on international and Australian research, we evaluated various approaches to determining the number and types of public EV chargers required. By 2025, we estimated that approximately 450 public charging ports would be needed - 230 in Randwick, 120 in Waverley, and 100 in Woollahra LGAs. The Strategy advocates for a place-based approach to determine appropriate locations and the installation of different types of charging stations in regional centres, local centres, and neighborhood centres. The type of charging should match the average length of stay and

surrounding urban form. Thus, rapid to ultra-fast charging should be the focus for regional centres, medium to fast charging at key destinations where people stay for up to four hours, and slower charging near high-density areas to facilitate long-stay and overnight charging.

The demand for charging stations should be met through a combination of government, residential, and private sector investment. The use of public resources and spaces to support EV users must be balanced against the public benefit and other competing land uses. Councils should play a primary role in ensuring that the rollout of charging infrastructure is strategic, efficient, and equitable by identifying suitable sites and guiding investment from the private sector and funding from Federal and State government.

Although refuelling of vehicles is a private matter, the Council plays a crucial role in facilitating the deployment of kerbside/ on-street charging around local and neighbourhood centers as well as high-density residential areas, where there is a shortage of private investment and space for larger EV charging hubs. In 2019, the 3-Councils were the first in New South Wales to establish Charging the East, a network of Council owned public charging stations powered by 100% renewable electricity, which currently consists of 12 chargers. The Charging the East network is currently operationally cost-neutral, but the strategy aims to achieve full cost recovery by 2024 within a 10-year period.

The Strategy proposes that the 3-Councils continue to ‘lead the charge’ and innovate and trial new implementation models and charging technologies, such as retrofitting EV chargers on wooden street poles, incorporating charging stations into multi-function poles during streetscape upgrades, and partnering with the private sector to set up charging hubs in Council carparks.

01

Our Vision

Vision

All residents and visitors of the Eastern Suburbs have access to electric vehicle charging infrastructure.

Our path to net zero

The 3-Councils are actively seeking to reduce community greenhouse gas emissions through a range of emissions reduction projects and activities. For the last 10 years, the 3-Councils have each set ambitious greenhouse gas emission targets for their communities and in 2019 each Council declared a state of climate emergency which aimed to accelerate action on climate change.

In the 3-Council region, transport is responsible for approximately 20% of all community emissions. Modelling from the Resilient Sydney platform[2] also shows that emission reductions from EVs is the largest council 'intervention' that can be taken to reduce community emissions, and that the transition to EVs is predicted to reduce the emissions of the Eastern Suburbs by 33% by 2050 (excluding emission reductions from grid renewables).

The 3-Councils' approach continues to prioritise pedestrians first, followed by people riding bicycles, using public transport, service vehicles, shared mobility and private motor vehicles. However, as passenger vehicles are the most popular form of travel, representing 80% of all residential travel (in km per year), reducing the emissions intensity of this travel has a significant and direct impact on the region's total emissions.

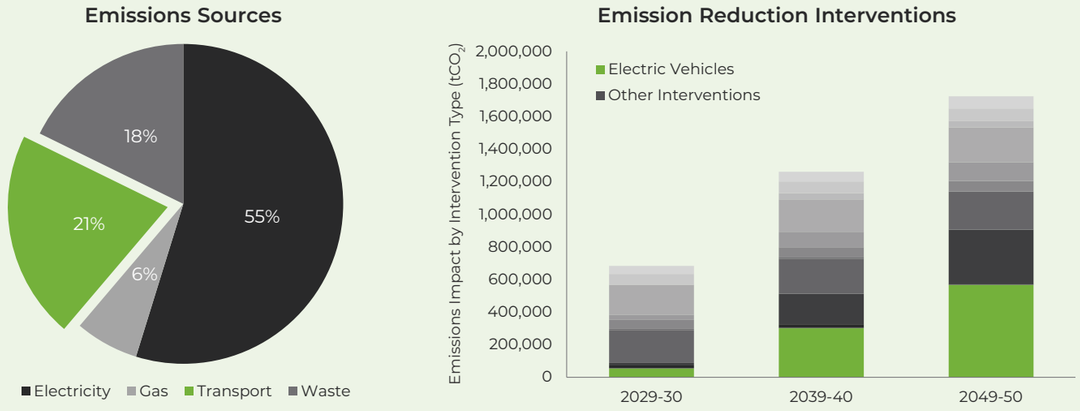


Figure 1: 3-Council Greenhouse Gas Emissions and Emissions Reduction Potential of EVs

Guiding principles

Increasing electric vehicle uptake leads to lower running costs, cleaner air and health benefits, quieter roads and lower greenhouse gas emissions[1].

Access to high quality EV charging infrastructure at home and in the community is essential for EV uptake. As the number of EVs continues to increase in the Eastern Suburbs, the following principles guide the 3-Councils' role and actions in the sector.

Equity

Electric chargers are accessible for all residents, particularly those living in apartments or townhouses. The installation of charging should be based on the principle of full cost recovery so that residents without EVs aren't subsidising those with EVs.

Accessibility

Electric vehicle chargers are safe, reliable, easy to use and readily available. Charging/ parking restrictions are enforced, and good charging etiquette is encouraged.

Urban form

On-street chargers should complement the street environment and ensure streets are highly accessible/ prioritised for pedestrians and cyclists.

Strategic

Strategic and data led decisions are made around the installation and management of charging locations and types.

Mode shift

Mode shift is prioritised over private vehicle transport. The provision of charging stations must not encourage traveling by car for non-essential trips.

Economic development

The provision of electric vehicle chargers encourages visitors and tourists to local popular destinations, including world renowned beaches and parks.

The challenges ahead

From recent consultation with stakeholders, we have identified a number of key challenges specific to the Eastern Suburbs which are outlined in the table below.

Land availability	
Limited access to offstreet parking	High land values, unfavourable lease arrangements and the limited availability of suitable sites in appropriate locations can be prohibitive to offstreet charger investment. With more than 60% of Eastern Suburbs residents living in apartments or townhouses and more than 50% renting, many residents are expected to rely on public charging infrastructure.
Ability to secure suitable charge station locations given competing demands and limited land availability	Space for private vehicles on streets is already in high demand and much of it is required for bus lanes, cycle lanes, parking facilities, loading/unloading or access. Many streets are unsuited to current charging equipment due to narrowness, traffic restrictions and the size of the charger and cables. Onstreet charging can increase conflict between drivers and pedestrians by adding to street clutter.
Installing new charge points can be a long and complex process	The installation of a new electric vehicle charger requires site suitability assessments, planning approval, Ausgrid approval and Traffic Committee approval (for kerbside chargers).
Cost of energy grid upgrades	The peak demand for many sites is already at capacity in many locations and upgrades to the electrical supply can be costly. Alternative solutions, including the role of smart charging in the longer term, will need to be considered.

Investment uncertainty	
Lack of confidence in the availability of convenient charge points	There is a fear that chargers would not be available, either through already being in use or being out of service (concerns raised particularly by taxi drivers). As coverage across the Eastern Suburbs is not currently consistent, drivers in some areas will have concerns over supply of infrastructure.
Drivers find the experience of charging confusing and complicated	Customers' experience of using different charge stations (and operators) can vary considerably from poor to excellent. There is poor interoperability between charge points and charge point providers, creating confusion around which chargers drivers can use and how much they can expect to pay.
Operational/Users	
Uncertainty about what type of charge points are needed and concerns about obsolescence	Reluctance to invest until there is more confidence in the charging model. Ongoing advances in technology raise concerns that what is installed now will become quickly obsolete. Upfront capital costs and initial low numbers of users mean that it can take a number of years before charging is profitable, which is compounded if the type and location are not effective.

The ideal future charging network

Research conducted in countries with high adoption rates of electric vehicles, such as Norway and Austria, as well as in emerging markets in the United Kingdom, United States, and Canada[5], reveals that approximately 80 to 90 percent of electric vehicle users choose to charge their vehicles at home. However, not all electric vehicle users have access to at-home charging due to various factors such as limited off-street parking, space availability, and energy supply distribution.

The ideal charging network matches the types of chargers with the use case of the drivers. Slow chargers are in areas where cars park for long durations, and fast chargers are in locations where motorists stop for short periods of time. The table below summarises these types of scenarios.

	Description	Type	Parking Time	Use Case Example	Responsibility
Home & Workplace	Chargers in home garages/driveways and in workplace carparks	Slow 7 – 22 kW AC	5+ hours	Local residents with off-street parking or employees who drive to work	Homeowner and businesses
On-Street	Chargers on kerbside and street carparks	Slow 7 – 22 kW AC	2+ hours	Local residents without off-street parking	Council or private installers
Destination	Chargers in destinations with carparks, e.g. shopping centres	Slow to Medium 7 – 22 kW AC or 25 – 50 kW DC	1 to 4 hours	Shoppers or gym members charging whilst parked	Council or private installers
Hubs	Chargers on highways and service stations	Fast 50 – 350 kW DC	10 – 30 mins	Motorists recharging to get to a destination	Council, State/Federal Government, private installers

Based on the latest industry data and insights, as well as knowledge gathered from more developed markets such as the UK[8], there remains a considerable amount of uncertainty surrounding the requirements for electric vehicle (EV) infrastructure.

It is possible that user preferences for charging may evolve in either of the following directions:

1. Emulating current petrol station refuelling behaviour, where faster public charging is preferred, with more on-the-go, top-up charging, and a mix of charging speeds, while still demanding slow chargers in residential areas.
2. Prioritizing on-street, slower residential-based charging, with some demand for faster charging and a slightly higher proportion of private, at-home charging on driveways.

> Our preference is to prioritize faster charging in carparks as it is more efficient and convenient. Where fast charging is not possible due to electrical or locational issues, then our preference is for slow chargers to be installed via kerbside chargers or powerpoles to minimise impact on streetscapes.

The Strategy proposes that the 3-Councils continue to 'lead the charge' and trial a range of new and innovative implementation models and charging technologies.

02

Our Current Situation

Where is the public charging in the Eastern Suburbs?

> As of March 2023, there are a total of 45 individual charging ports located at 25 different locations across the Eastern Suburbs, which can deliver a total capacity of 457kW.

All of these chargers are classified as public chargers and are accessible to the public for a fee. Out of the 25 locations, 21 are AC chargers capable of delivering 50-150km of range per hour.

However, the current distribution of chargers is quite patchy, with existing chargers concentrated in specific locations and significant gaps between major centres, particularly in the suburbs of Woollahra, Paddington, Waverley, Bronte and Maroubra. This uneven distribution can cause range anxiety for some EV drivers, leading to reluctance in adopting electric vehicles.

To address this issue, the 3-Councils Charging the East network has been expanded, accounting for 12 out of the 25 locations and making up approximately 50% of all publicly available charging facilities. This network is focused on filling in some of these gaps in the Eastern Suburbs to make it easier for EV drivers to find charging stations in more convenient locations. Usage of this network has grown exponentially since 2019 in line with greater EV uptake.

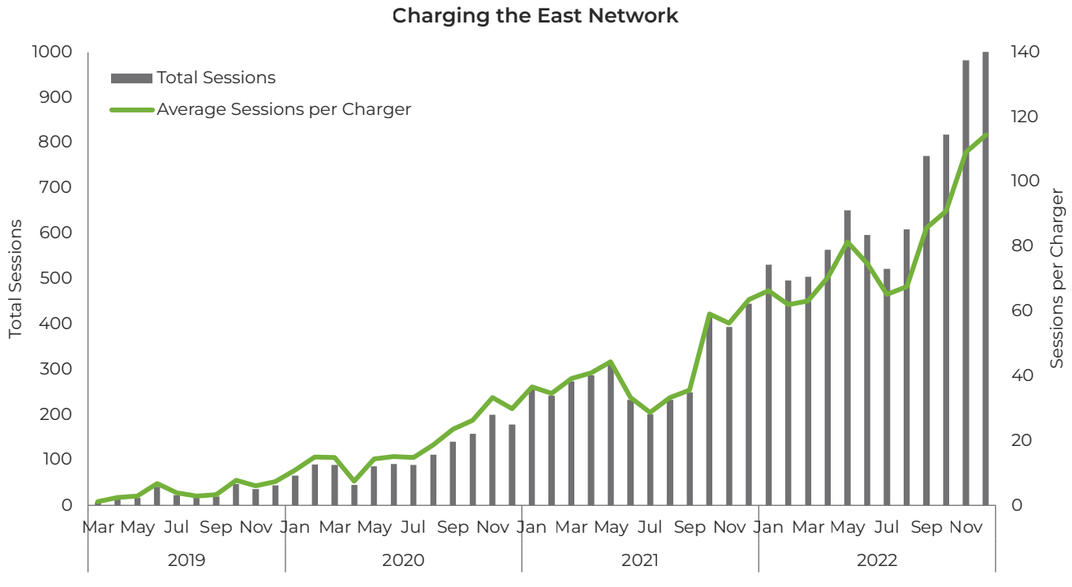


Figure 2: Monthly Charging Sessions

What new charging initiatives are coming?

A range of council owned and private electric vehicle charging networks are already operating across the region and are rapidly being expanded. In addition, there are a number of new charging initiative due to launch in 2023.

	Charging the East	**Multi-Function Poles**	**EV Street Side Charging Trial**	**JOLT**	**Future Fuels Fund**	**Supercharging Hub**
Type	Slow 7 – 22 kW AC	Slow 7 kW AC	Slow 22 kW AC	Medium 25 kW DC	Fast 50 kW DC	Ultra-Fast 250 kW DC
Summary	Destination charging net-work	Integrated EV chargers on new multi-function poles	Installation of chargers on wooden street poles	Electrical kiosks retrofitted with chargers and advertisement	Installation of chargers supported by the Federal Government	Installation of six or more chargers accessible to all vehicle types
Owner	3-Councils	3-Councils	ARENA / Intelli-hub (1 year trial)	JOLT	Evie Networks & other private operators	Tesla
Current Chargers (Mar 2023)	12	5 (Waverley)	-	2 (Randwick)	2 (Waverley) 2 (Randwick)	-
Planned Chargers (Dec 2023)	20	10	20-30	4 (Randwick)	2 (Woollahra)	6 (Waverley)
Image						

Table 3: Current and Future Charging Network Providers in the Eastern Suburbs

03

Our Role

Recognizing the importance of promoting sustainable transportation, it is essential to have adequate infrastructure in place to support the use of electric vehicles as the most environmentally friendly mode of transportation for making vehicle trips.

The recent NSW Electric Vehicle Strategy[1] and State of Electric Vehicles Report[6] recognises 'local governments around Australia as having several important roles in the transition to EVs', namely:

- Direct deployment of local government owned regular EV charging infrastructure (below 24kW)
- Deployment of public charging infrastructure in partnership with charging station operators
- Community education
- Planning requirements

These findings, as well as the 3-Councils' ongoing work in this sector, have informed the roles outlined in the following tables.

Federal Government

The Australian Government through the National Electric Vehicle Strategy is responsible for:

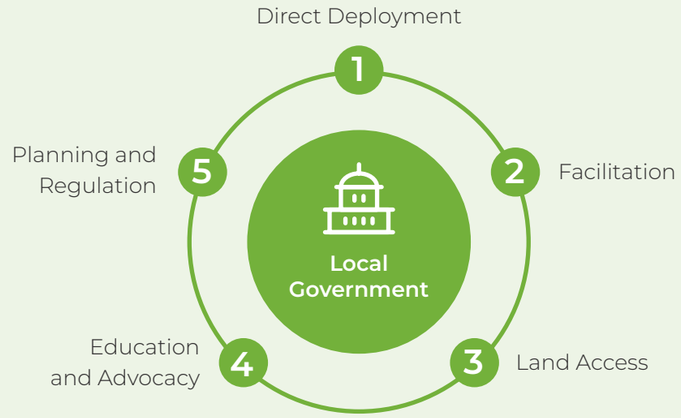
1. Increasing the supply of affordable and accessible EVs by introducing a Fuel Efficiency Standard
2. Establishing the resources, systems and infrastructure to enable rapid EV uptake by building a National EV Charging Network
3. Encourage increase in EV Demand through the Electric Car Discount

State Government

The NSW Government through the NSW Electric Vehicle Strategy & Drive Electric EV Kerbside Charging Grants is responsible for:

1. Helping drivers buy an electric vehicle by removing stamp duty and offering rebates/incentives
2. Building a world-class electric vehicle charging network with funding for charging in commuter corridors, destinations and roadside locations
3. Making it easier to drive an EV by allowing drivers to use transit lanes
4. Creating jobs and growing the economy from growing EV uptake
5. Keeping road funding fair and sustainable by phasing out stamp duty

Local Government



1 Direct Deployment

Installation of Council owned charging stations in the public domain.

Direct Deployment allows councils to strategically select sites based on uptake and equality, co-ordinate and prioritise specific locations, and match the speed of the rollout of charging station with local EV uptake.

Existing local examples:

- Charging the East - Eastern Suburbs Public Electric Vehicle Charging Station Network
- Council owned multi-function street poles with integrated chargers

2 Facilitation

Facilitating the installation of privately owned charging stations on public and private land.

Identify suitable sites, facilitate and stimulate investment from the private sector and funding from Federal and State government for installation of EV charging in the public and private domain.

Assisting local facilities and clubs to install publicly accessible charging stations on their properties.

Existing local examples:

- ARENA funded EV Street Side Charging Project for chargers on existing green light/power poles
- Installation of JOLT chargers on Ausgrid green kiosk substations in Randwick LGA
- Supported Brigidine College (charger at Wilson's carpark at The Spot, Randwick)
- Assisting Australian Jockey Club with scoping

3 Land Access

Licensing of Council land/carparks to private charge station operators.

Where the private sector is active, in fast and super/ultra-fast market, the most appropriate role for Council is as a site host to license Council carparks and land. Council receives licensing revenue and sets terms and conditions.

Existing local examples:

- Australian Government Future Fuel Fund installation in Eastgate Bondi Junction and in Dorhauer Lane, Woollahra
- Tesla Supercharging Hub at Waverley Library

4 Education and Advocacy

Education and awareness for local residents, businesses, tourists and charge station providers.

Advocate for economic incentives, standards and partnerships with the State and Federal Governments and industry stakeholders.

Existing local examples:

- Webinars, case studies, events, and educational material on EVs and charging stations
- Advocating for changes to TfNSW signage and planning approvals pathways
- Collaboration with EV Council, NSW and Federal Government, SSROC and LG NSW
- Transitioning Council fleet vehicles to electric

5 Planning and Regulation

Developing plans and regulation to increase the availability and accessibility of electric vehicle charging infrastructure in the community.

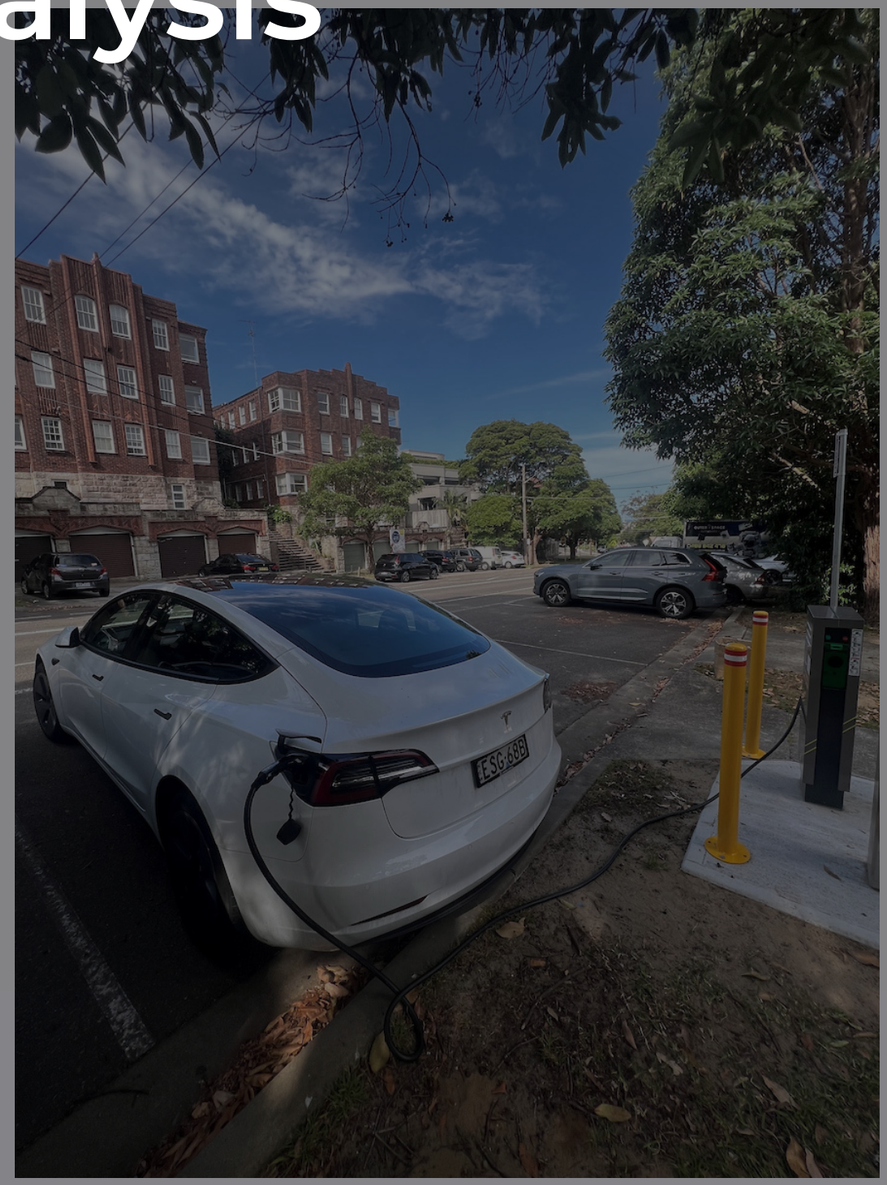
Existing local examples:

- DCP requirements for electric vehicle charging infrastructure in new developments
- Enforcement of electric vehicle parking rules

> Whilst, vehicle refuelling is a private undertaking, Council has a key role in enabling market facilitation of kerbside/on-street charging around local and neighbourhood centres and high-density residential areas where there is a lack of private investment and limited space for larger EV charging hubs.

04

Our Analysis



How many electric vehicles are we anticipating?

> The number of EVs in the Eastern Suburbs is currently doubling year-on-year and the exponential growth is forecast to continue as more EV models become available and reach lifecycle cost parity.

As of March 2023, the number of battery electric vehicles garaged in Randwick, Waverley and Woollahra LGAs are 702, 671 and 724 respectively, or 2,097 across the 3 councils[3].

Given the uncertainty in EV forecasts, three electric vehicle uptake scenarios have been modelled for the Eastern Suburbs:

1. Slow uptake (provided by CarLoop)
2. Fast uptake (provided by CarLoop)
3. CSIRO Rapid Decarbonisation pathway (provided by Institute for Sensible Transport)[4]

There is little variability in either of the scenarios up to 2025, with estimates that by 2025, there are expected to be around 10,000 EVs on the local roads.

Using the CSIRO Rapid Decarbonisation pathway, we estimate that there will be more than than 35,000 EVs in the Eastern Suburbs by 2030[4]. This number excludes EV drivers visiting from other LGAs.

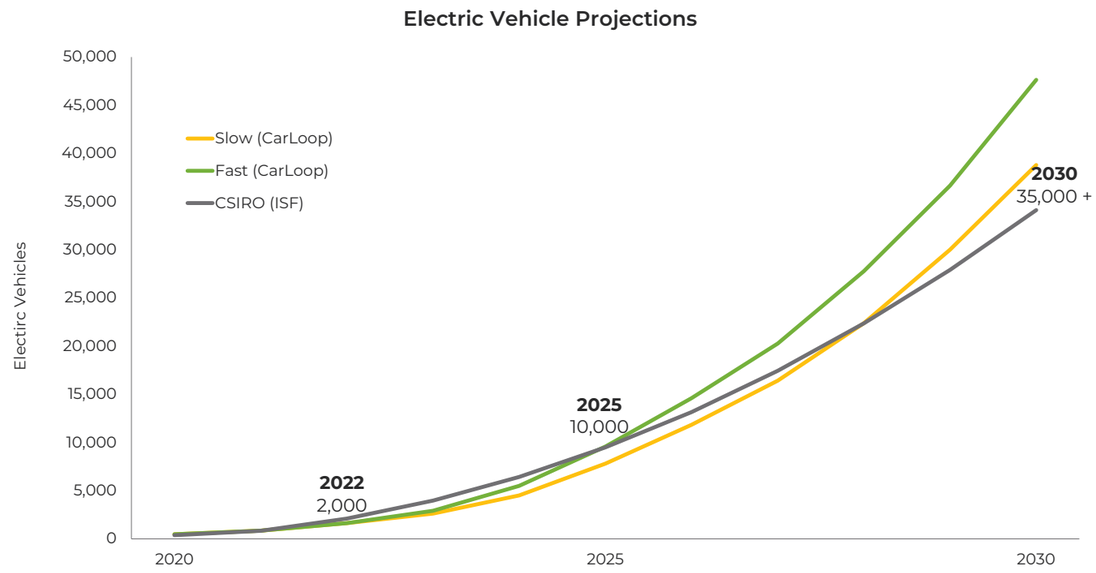


Figure 4: Electric Vehicle Projections Scenarios (CarLoop and CSIRO)

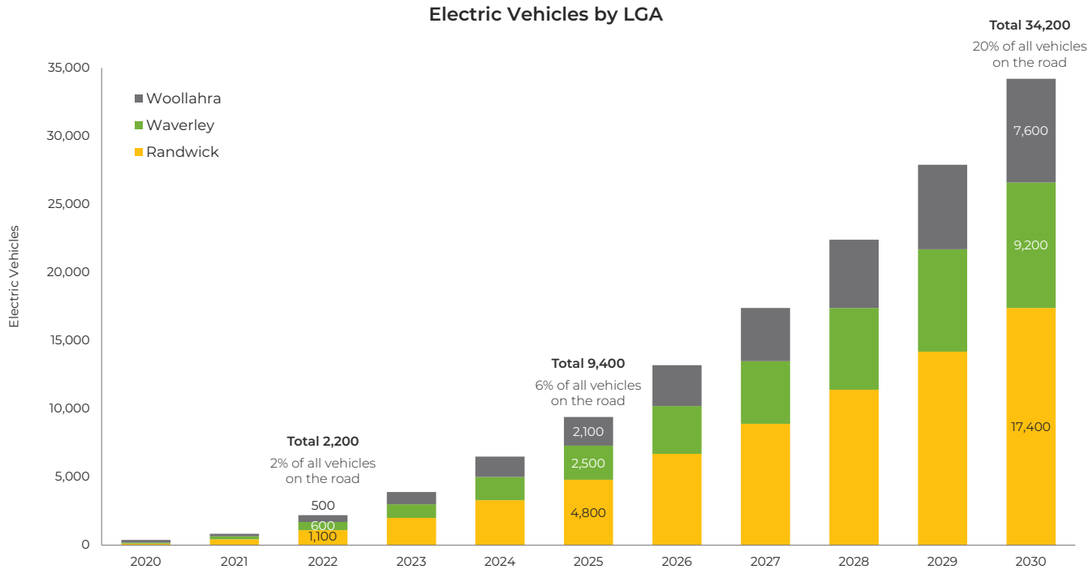


Figure 5: Electric Vehicle Projections (CSIRO)

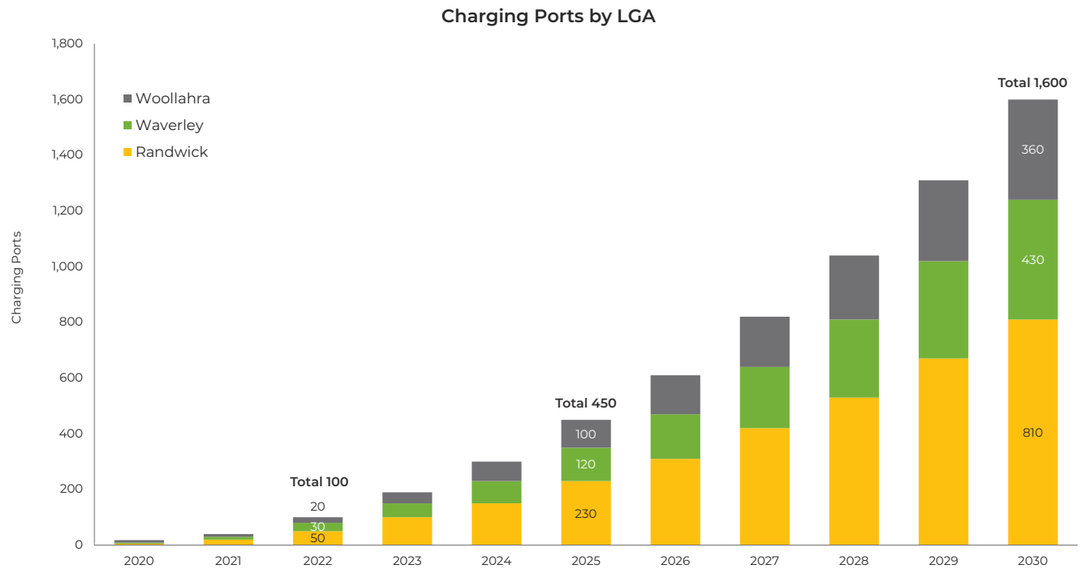


Figure 6: Charging Ports Projections (CSIRO)

How many chargers do we need?

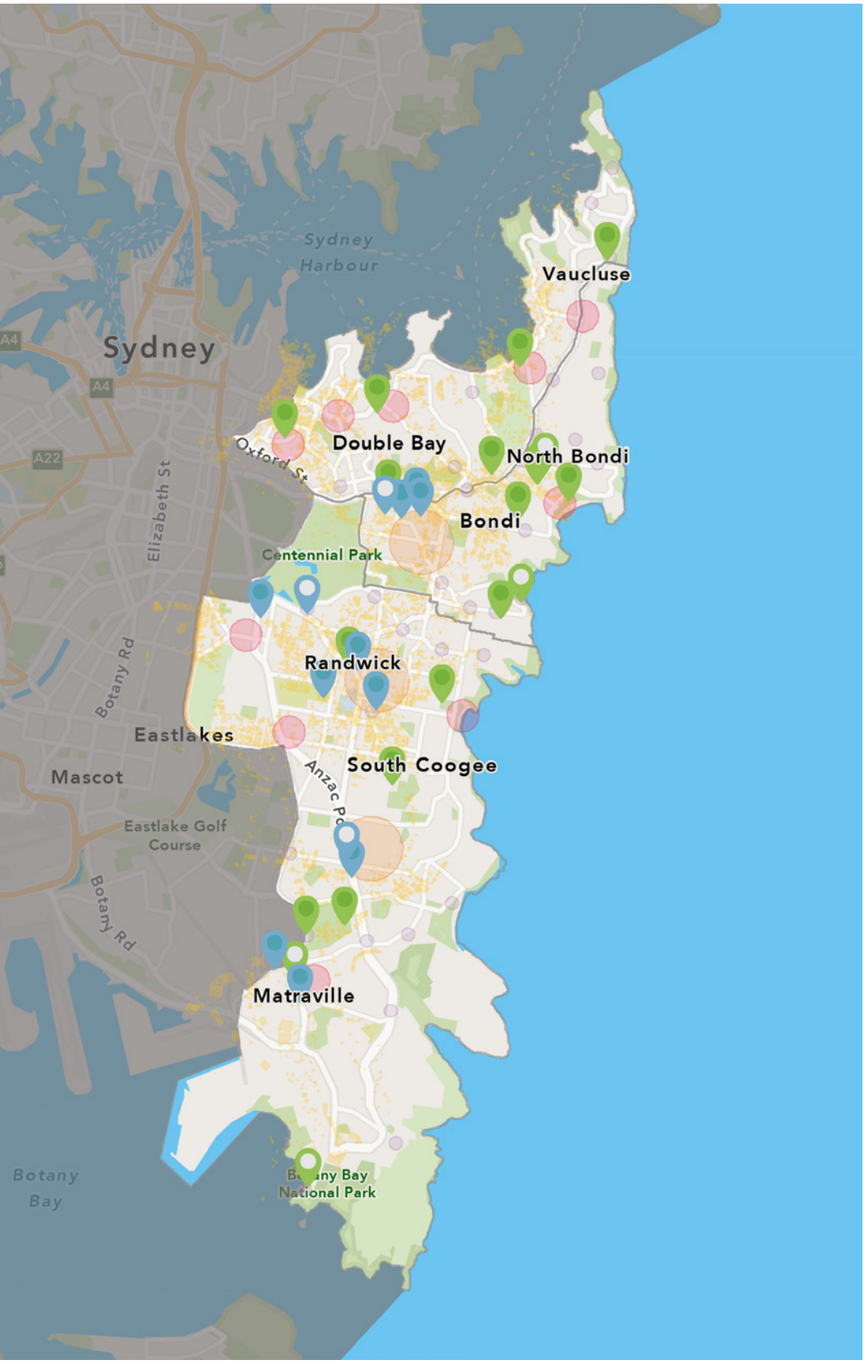
Determining the number of public charging stations required to cater for the growing demand is a complex task dependent on several factors, such as: the number of EVs on the roads and their distance travelled; the power (kW) of the charging stations; the availability of off-street parking; and population density.

To calculate the chargers required we adopted the internationally recognised 'kW-per-EV ratio' of 1:1, meaning there is 1 kW of publicly accessible charging capacity (kW) per EV on the road. For reference, the 3-Council region currently has around 0.65 kW of charging available per EV in the area, significantly below the target ratio of 1. To keep pace with the growing demand for EVs, significant investment is required from government and the private sector to install more charging stations.

This same international research[7] suggests that around 1 in 3 public charging stations is a fast charger, hence a third of the projected chargers are assumed to be 50 kW DC charging ports, with two-thirds assumed to be 7 kW AC charging ports.

> In 2025, the total number of charging ports required is around 450 comprising of 230 in Randwick, 120 in Waverley and 100 in Woollahra LGAs. By 2030, a total of 1,600 charging ports are required.

It is essential to monitor the exact number of public chargers needed by considering the overall increase or decrease in the number of vehicles in the Eastern Suburbs, user trends for charging speeds, improvements in charging technologies and the installation of chargers in residential areas, offices, and privately-owned destinations such as department stores and supermarkets.



Charging Station Locations – Eastern Suburbs

Legends

Electric Vehicle Installations

- Council – Installed
- Council – Awaiting Install
- Private – Installed
- Private – Awaiting Install

Centres

- Neighbourhood Centre
  2025 Target: minimum 1 slow charging port
- Local Centre
  2025 Target: minimum 4 slow charging ports or 2 fast charging ports
- Regional Centre
  2025 Target: minimum 4 fast charging ports

Apartments

- High Density Residential Areas
  2025 Target: minimum 10 additional slow charging ports per LGA*

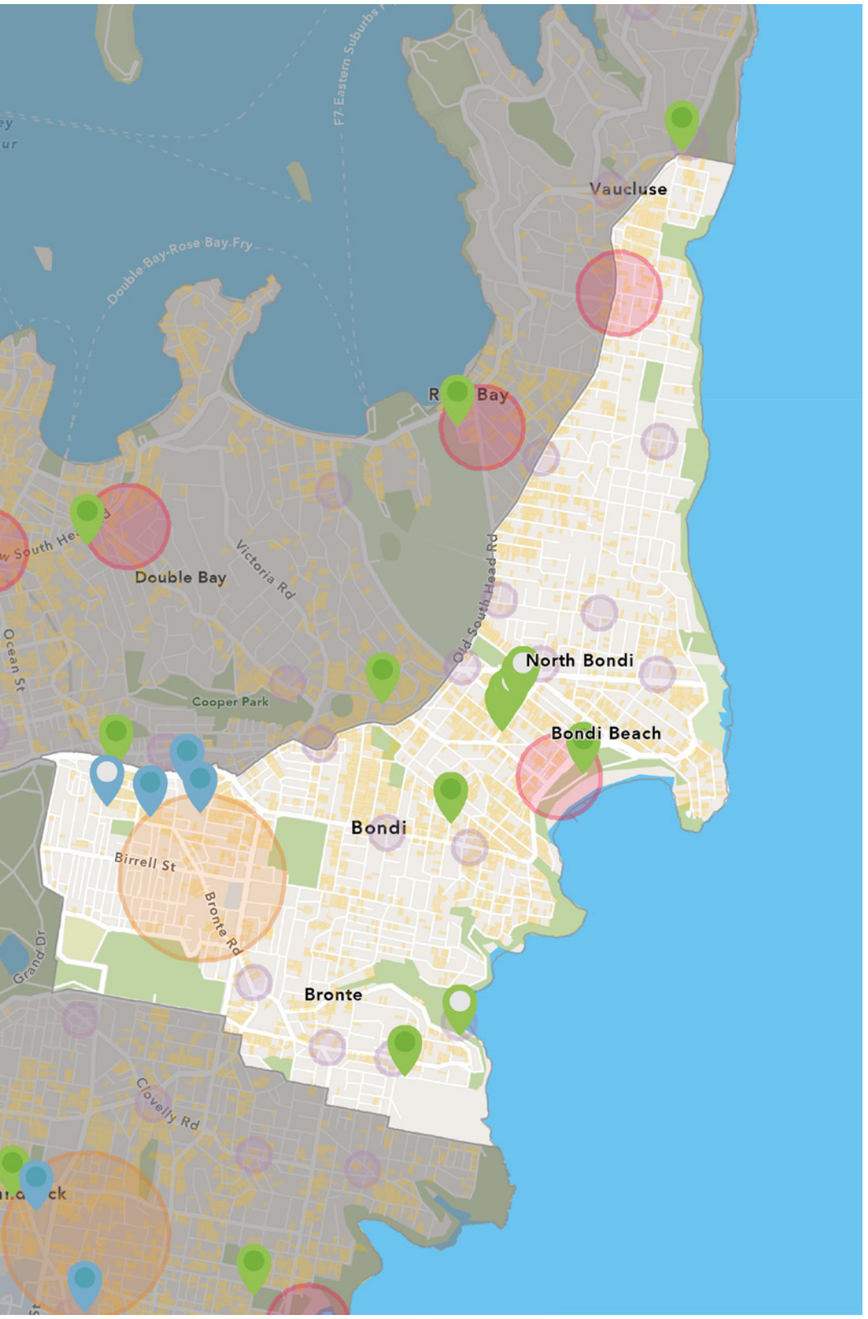
Where should the chargers be located?

> The Strategy proposes a place-based approach to selecting suitable locations with different types of charging stations installed in regional centres, local centres, and neighbourhood centres.

The type of charging is designed to match the average duration of stay and surrounding urban form. This means that fast to ultra-fast charging should be the focus for regional centres, medium to fast charging at key destinations where people stay for up to 4 hours and slower charging near high density areas to facilitate long-stay and overnight charging. The maps in this section summarise the suggested locations for various types of chargers, as well as targets for 2025.

Charging Stations Locations – Randwick LGA

Charging Station Locations – Waverley LGA



Legends

Electric Vehicle Installations

- Council – Installed
- Council – Awaiting Install
- Private – Installed
- Private – Awaiting Install

Centres

Neighbourhood Centre
2025 Target: minimum 1 slow charging port

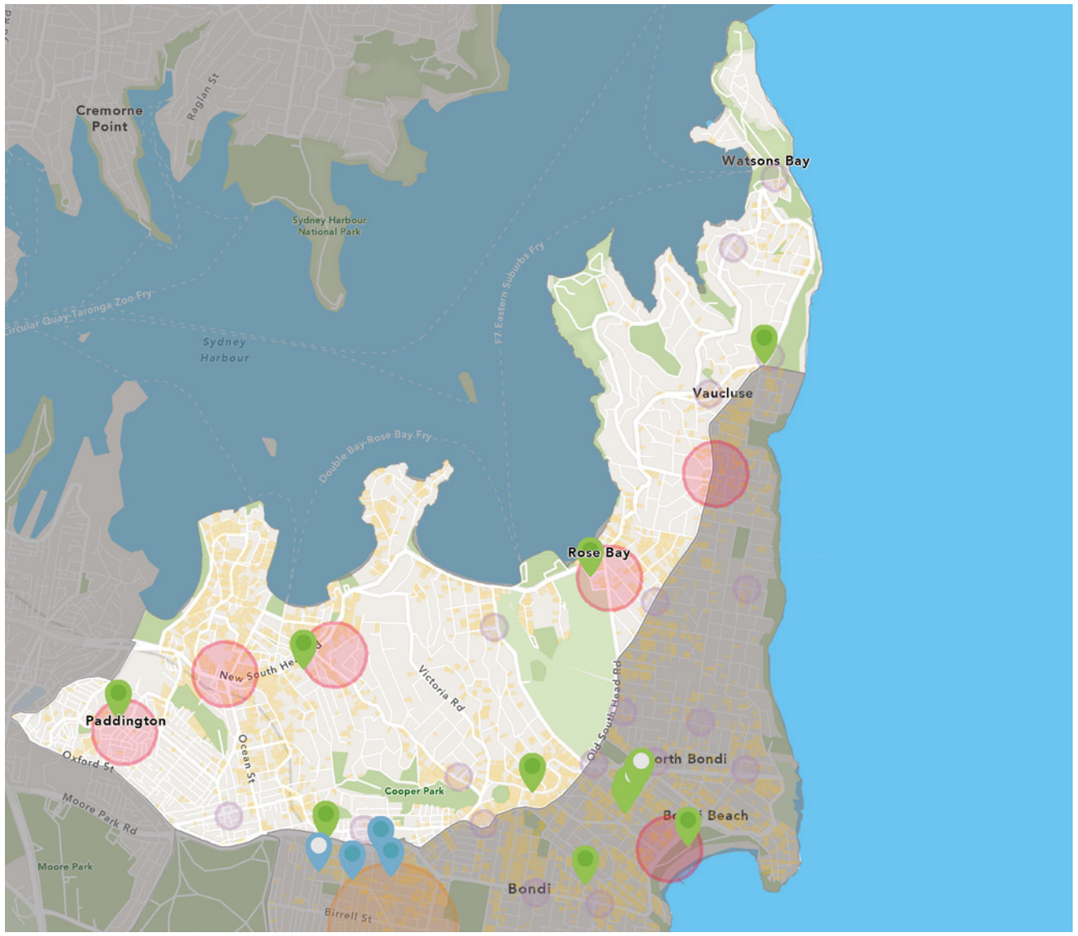
Local Centre
2025 Target: minimum 4 slow charging ports or 2 fast charging ports

Regional Centre
2025 Target: minimum 4 fast charging ports

Apartments

High Density Residential Areas
2025 Target: minimum 10 additional slow charging ports per LGA*

Charging Station Locations – Woollahra LGA



What about fast charging hubs?

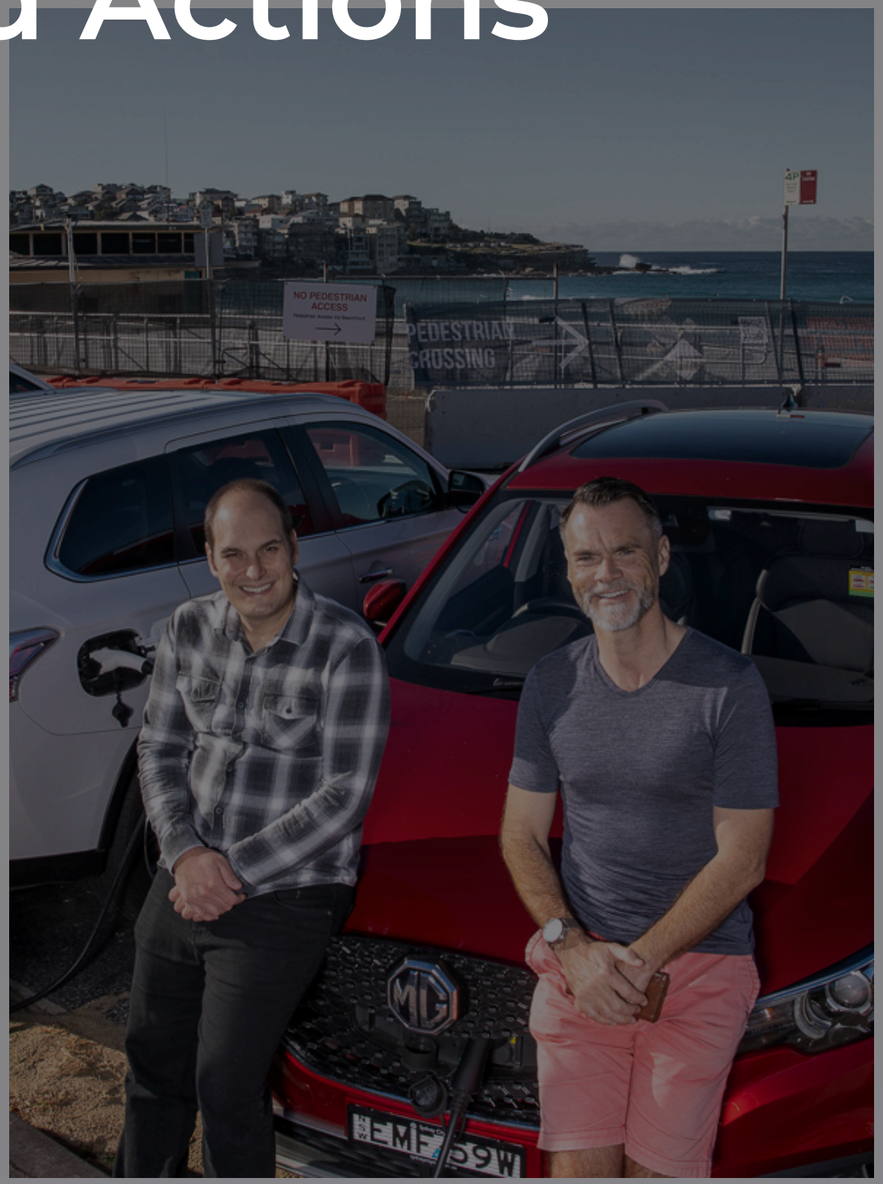
Three fast charging hubs in the Eastern Suburbs have received funding from the NSW Government. These are:

- Waverley Library, 32-48 Denison St, Bondi Junction NSW 2022
- Ampol Australia Energy, 2 Alison Rd, Randwick NSW 2031, Australia
- Ampol Australia Energy, 737 Anzac Pde, Maroubra NSW 2035, Australia

The 'Private - Awaiting Install' icons on the map show these locations. These NSW Government funded stations will have a minimum of 2 charging bays with 175kW chargers and 2 with 350kW chargers, and all stations are expected to be constructed by September 2024.

05

Our Objectives and Actions



Our objectives

The following objectives are set for the Public Electric Vehicle Charging Strategy.

1

Reduce 3-Councils' transport sector community emissions year on year

Metric: tCO2

Source: Resilient Sydney Platform

2

Maintain 3-Councils' electric vehicle ownership above State and Federal average

Metric: % EV ownership

Source: Carloop & National Map

3

Maintain a minimum of 1 kW of public charging capacity per 1 EV registered in the 3-Councils' LGAs

Metric: Ratio of capacity (kW) to EVs

Source: Carloop and PlugShare

4

Ensure users are more than 80% satisfied with the experience of Council owned chargers via a yearly survey

Metric: % user satisfaction

Source: Annual Survey

5

Ensure Council charging stations is online for more than 99% of each year

Metric: % downtime

Source: ChargeFox

6

Install or facilitate the following installations by 2025:

- High Density Residential Areas: minimum 10 additional slow charging ports per LGA*
- Neighbourhood Centre: minimum 1 slow charging port
- Local Centre: minimum 4 slow charging ports or 2 fast charging ports
- Regional Centre: minimum 4 fast charging ports

Metric: Number and types of chargers

Source: Plugshare

* High Density Residential Areas are identified as per the NSW EV Kerbside Charging Grants Map

Action plan

An action plan has been prepared to achieve the Vision and Principles outlined above. Approximate time frames have also been included as a guide.

Action	Description	Stakeholder(s)	Timeframe
Direct Deployment			
Expand the *Charging the East* network	Continue to expand the Charging the East Network in the Eastern Suburbs. Select sites using special analysis and the Site Selection Criteria (provided in Supporting Documentation). Use a consistent consultation and rollout process for installations. Develop a website showing uptake, numbers of chargers and frequently asked questions.	Regional Environment Program	Current
Seek funding for charging installations	Seek funding from Federal and State government (such as the NSW Government's Kerbside Charging Grants) for charging installations in carparks and kerbside.	NSW Treasury DCCEEW ARENA	0 – 12 months
Integrate charging infrastructure into redevelopments and streetscape upgrades	Where practicable, include charging stations in new developments of Council land and streetcape upgrades. Develop guidance documents as appropriate.	Major Project Teams Multi-function pole providers	0 – 12 months
Trial a Council owned DC charger	Trial at least one DC charger in the Charging the East network and assess its usage, performance and maintenance requirements.	Regional Environment Program	0 – 12 months
Develop a pathway to request public EV chargers	Develop a pathway for residents to request public EV chargers in their preferred locations.	Regional Environment Program	0 – 12 months
Develop tourism and economic opportunities	Undertake research on the impacts of EV chargers on tourism and economic development of neighbourhood, local and regional centres.	Economic Development Teams LGNSW	0 – 12 months
Optimise user experience	Investigate the potential to work with charge station operators to create an EV charging booking systems and/or overstay notifications and idling fees.	ChargeFox and other Charge Station Operators	0 – 12 months

Action	Description	Stakeholder(s)	Timeframe
Continue reporting	Report back to councils on Action Plan progress, EV uptake and EV charger usage on a quarterly basis. Review EV Strategy after 5 years.	Governance	0 – 12 months
Undertake surveys	Undertake a survey of residents and charger users to gauge their attitudes and knowledge about the charging stations to inform future installations.	Regional Environment Program	1 – 2 years
Pursue cost recovery	Council's Charging the East network, which is currently cost neutral operationally, should by 2024 aim to achieve full cost recovery within a 10-year period. Prices should be updated annually in line with market rates.	Regional Environment Program	1 – 2 years
Facilitation			
Facilitate EV chargers in apartments	Pilot a program to assist apartments to install EV chargers. Assess the feasibility of rebates or grants, information resources and project management assistance.	Regional Environment Program	Current
Facilitate fast charging hubs on Council land	Identify Council owned sites that would be appropriate for fast charging and add them to the NSW Government's Fast Charging Grants website as a site host. Seek offers from private sector and charge station operators for licensing Council land. Run an EOI process to compare bids on a transparent basis.	NSW Treasury Private charging station operators	0 – 12 months
Facilitate installations of street pole electric vehicle charger	Facilitate installations of street pole electric vehicle charger. Trial and assess feasibility of unmarked parking spaces.	Regional Environment Program Ausgrid Charge Station Operators	0 – 12 months
Pilot a facilitation model for private organisations to install public EV chargers	Organisations like Brigidine College who own Wilson's carpark in The Spot, and AJC in Randwick have sought the assistance of the 3-Councils on how best to install and procure charging stations. The 3-Councils to pilot a facilitation model to assist these organisations using a similar model to Solar my School.	Clubs and community organisations Shopping centres Private businesses	1 – 2 years

Action	Description	Stakeholder(s)	Timeframe
Land Access			
Develop a consistent approach to proposals from third-party charging providers (rental, licence fee, etc)	Council frequently receives unsolicited proposals from third-party charging providers. Some of these are backed by grant funding through the Federal and State government. There is a need to develop a transparent and consistent approach to dealing with these offers e.g. via an EOI process.	Third-party providers Governance team	0 – 12 months
Standardise internal financial processes	Develop an internal financial process to account for costs and revenue related to the operation and licensing of chargers.	Various council teams	1 – 2 years
Education and Advocacy			
Explore payment via a single app	Advocate for a single access and payment application across all charging stations.	Charge Station Operators NSW Treasury	0 – 12 months
Investigate smart charging software	Investigate the potential for charging software reporting and payment platform (currently ChargeFox for Charging the East) to stop sessions, charge an 'overstaying fee' and provide real-time status of charging session.	CSO	0 – 12 months
Contact local businesses	Contact local businesses with private carparking to encourage and facilitate EV charger installations.	Regional Environment Program Local businesses	0 – 12 months
Optimise user experience	Investigate the potential to work with charge station operators to create an EV charging booking systems and/or overstay notifications and idling fees.	ChargeFox and other Charge Station Operators	2 – 4 years

Action	Description	Stakeholder(s)	Timeframe
Planning Requirements			
Adopt new signage and parking arrangements	New signage and parking signage and restrictions have been issued by TfNSW and should be used except in specific circumstances (i.e. heritage areas).	Traffic and Transport Teams	Current
Align Eastern Suburbs EV Strategy with neighbouring Councils and SSROC	It is important to have a consistent approach across geographical boundaries. Implementation of the Strategy should occur with consultation with neighbouring Councils and SSROC to develop regional guidelines, policies and collateral.	Bayside, CoS, Inner West Council and SSROC	Current
Contribute to the NSW's technical guidance documents for charger installations in the public domain	Development of technical guidelines for on-street charging looking at site micro-alignment issues, cable runs, parking, and electrical.	Traffic and Transport Teams Asset teams	Current
Require 100% renewable electricity	Require all new public EV charging stations to be powered by 100% renewable electricity.	Regional Environment Program Charge Station Operators	Current
Align DCP and planning approvals, NCC, performance standards across councils	Align Council's DCP conditions for new developments to ensure they are consistent with any guidance from the NCC and NSW Government.	Planning teams	0 – 12 months
Investigate EV parking permits	Investigate the potential to issue an EV parking permit which allows residents shared use of EV only parking spots.	Planning	1 – 2 years
Develop compliance guidance	Provide training and guidance for PPO on enforcing new EV signage rules.	Council's Parking Patrol Officers	1 – 2 years
Develop DA conditions for private electric vehicle charging on public land	The State Environmental Planning Policy (Transport and Infrastructure) allows for residents to submit a DA for residents to install a charger outside their residence. Assess suitability of these chargers for the Eastern Suburbs based on learnings from other councils.	Planning	2 – 4 years

Abbreviations

Term	Definition
3-Councils	Randwick, Waverley, and Woollahra Councils
AC	Alternating Current
BEV	Battery Electric Vehicle
DC	Direct Current
EV	Electric Vehicle
kW	Kilowatt
kWh	Kilowatt-hours
PHEV	Plug-in Hybrid Electric Vehicle
REP	Regional Environment Program

References

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