



Electric Vehicle Charging in Strata – Project Overview

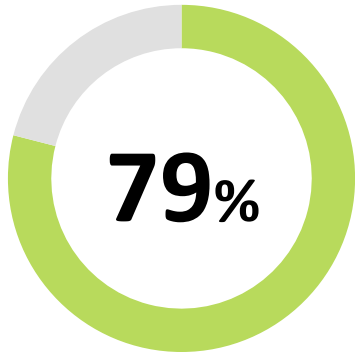
Study conducted in association with:



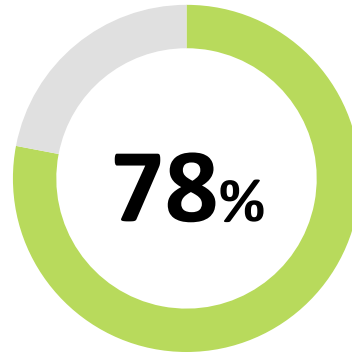
Scope of the project

- 80 strata schemes within the City of Sydney **registered interest**
- Conducted **surveys of over 700 residents** in strata schemes within the City of Sydney
- **20 strata schemes** of different age, size, energy consumption and location were selected for site visits and detailed reports to assist in preparation for electric vehicle charging infrastructure
- **Engagement** with:
 - strata committee members
 - strata managers
 - building managers
 - charge station vendors
 - electrical contractors
 - energy companies
 - car share operators
 - property developers
 - electric vehicle manufacturers and dealers
 - City of Sydney transport and sustainability teams
 - NSW Department of Industry
 - Department of Planning, Lands & Heritage (Western Australia)
 - City of Melbourne, North Sydney Council, Kuring-gai Council
 - Media e.g. Inside Strata, Fifth Estate

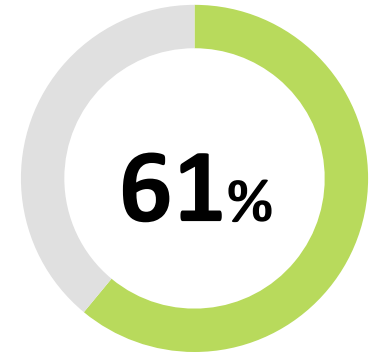
Some key findings



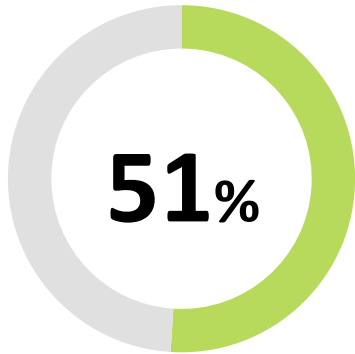
Favoured a **user pays** charging system



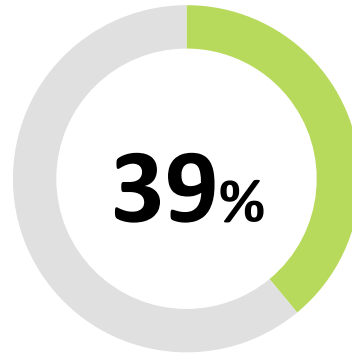
Were in favour of **installing charging systems now**



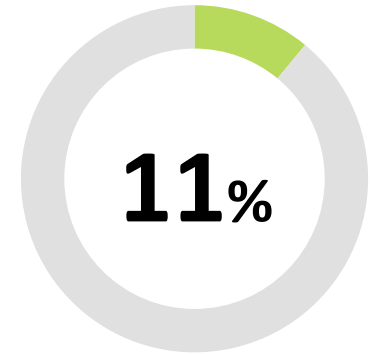
Favoured charging in their **individual lot carspaces**



Expressed **no preference** of hybrid electric vehicles over electric vehicles

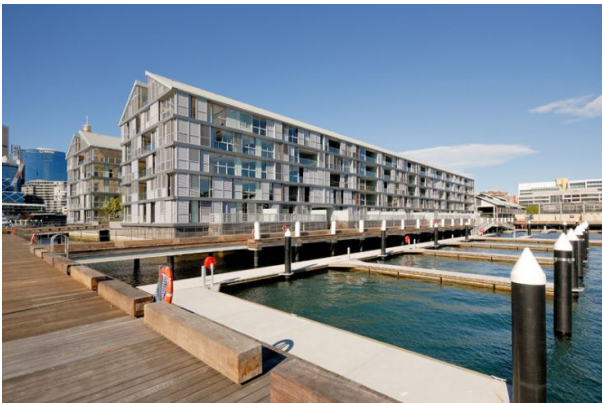


Of vehicles in strata are **family cars**, which is the most common type of vehicle



Knew the location of the nearest public charging station

Some participating strata schemes



Strata buildings have extensive basement carpark



Visitor parking is scarce and policed



Car wash bays are not ideal for electric vehicle charging



Loading bays are better for charging (after hours)



EV's in carshare spots in strata are a possibility



City of Sydney land in strata carpark could be used



Large car stackers make EV charging difficult



Individual lot car stackers can be retrofitted with charging



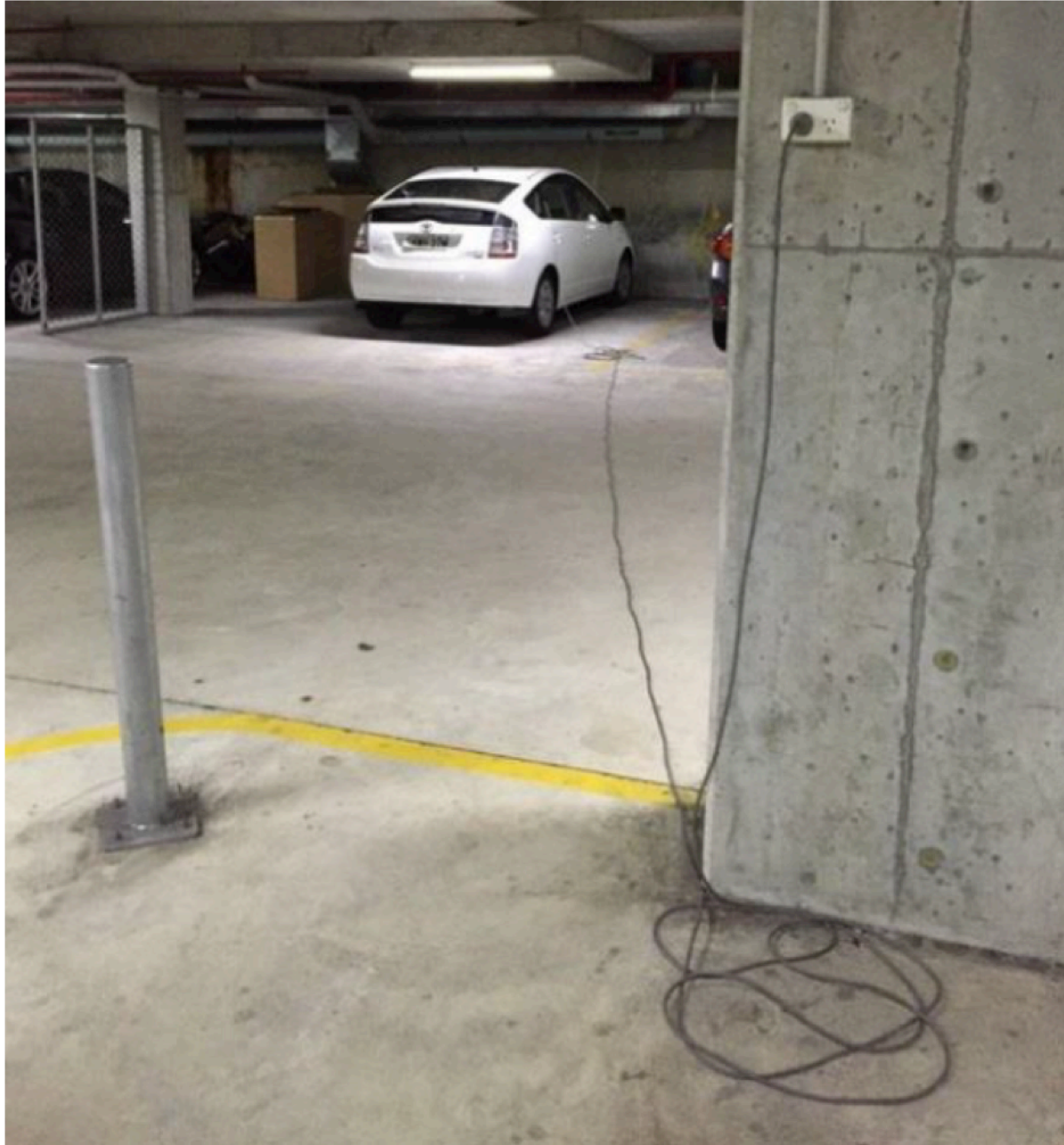
Hybrid electric vehicles are getting more popular



General power outlets (10amps) are in some stratas



Today, hybrid vehicles are stealing common power



Similarly, electric mopeds are charging on common power



Full electric vehicles are charging slowly...



...with power cable going to 10amp power outlet on roof



Electric vehicles are often unable to charge at all



A metered general power outlet can be installed



...but extension leads on the floor are unsafe



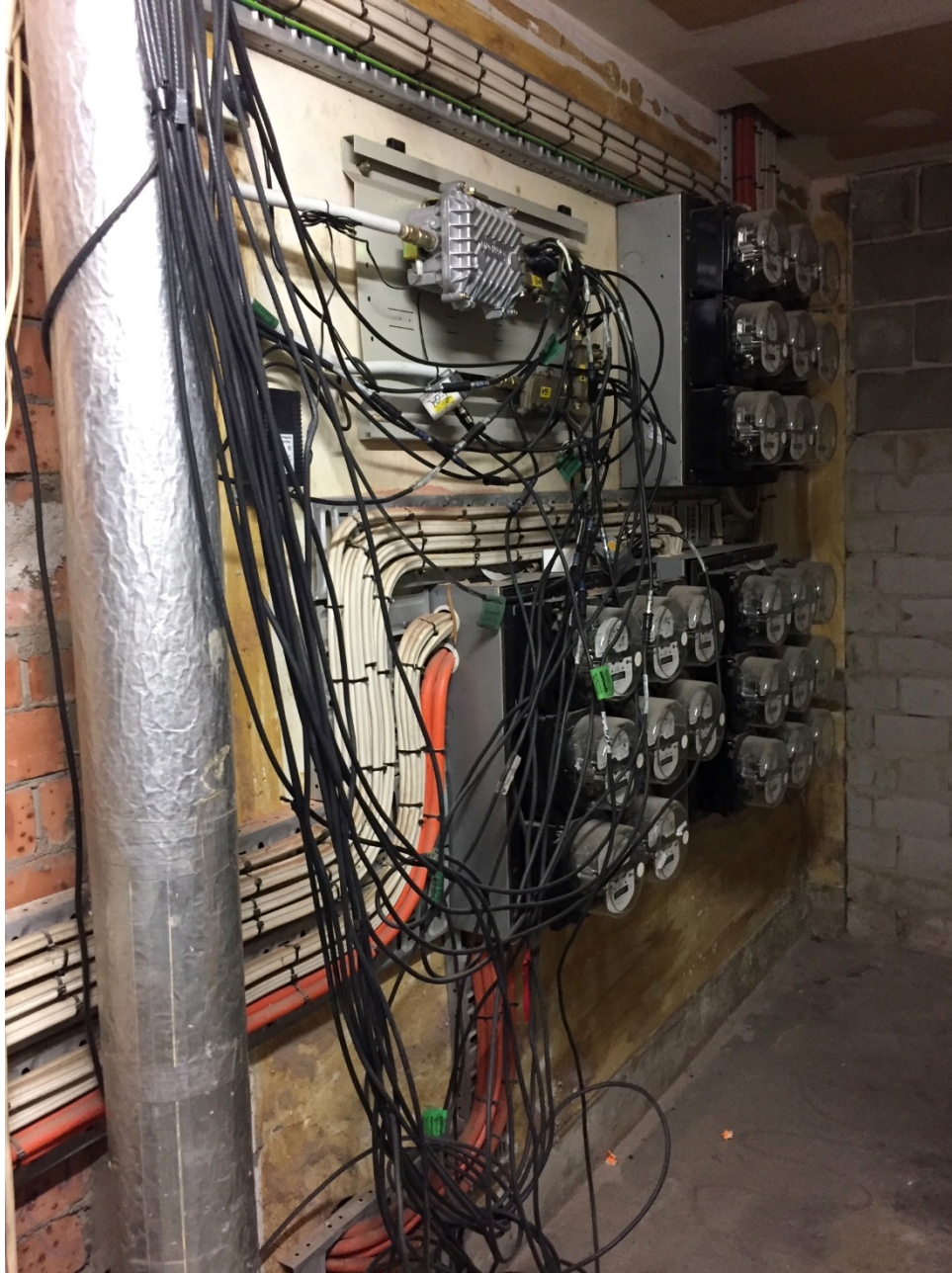
EV owners need to charge outside their strata



Early adopters charge at 40amps, limiting resources



Some existing switchboards will need upgrading



Developers need to put cable trays in strata carpark



Building Managers are on board

Age no barrier as Observatory Tower outperforms younger buildings



Willow Aliento | 9 November 2017

Age is no barrier when it comes to improving multi-residential building performance. When smart management works with a committed owners corporation, major gains can be made without breaking the capex budget, as one premium Sydney apartment building has shown.

Glen Webber has been the building manager of Observatory Tower in Millers Point for the past 17 years. The multi-residential building comprises 199 apartments, 60 per cent owned by owner-occupiers.

The tower was originally the 20-storey IBM commercial office building, and was refurbished and extended 21 years ago into a 27-storey apartment tower with a retail courtyard at ground level.

When he first took over the management, Webber says the property had many opportunities to improve on its energy performance.

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Strata Survey Reveals Electric Vehicle Demand

Overwhelmingly 78% of respondents are in favour of electric vehicle charging facilities in strata.

According to [survey results](#) Electric Vehicles or EVs are coming to strata buildings a lot sooner than anyone expected.

Surveys have been conducted in Sydney, Brisbane and Melbourne with as many as 53% of residents participating across 109 buildings. Overwhelmingly 78% of respondents are in favour of installing charging facilities now. Purchase intentions around electric vehicles reveal that 56% of respondents intend to have an EV within 10 years. If this is true the uptake of electric vehicles in strata buildings will be twice as fast as the most bullish AEMO projections.

26 September 2017



INNOVATION OF THE YEAR

Support: (02) 9977 1801

WATTBLOCK ENERGY REPORT EV SURVEY RESULTS

Survey conducted from 23/6/2017 over a period of 35 days

Sample Building
1 Sample Street
Sample Suburb, NSW 2007
Type: Mid Rise
Blocks: 1
Apartments: 328
Residential Levels: 7
Commercial Levels: 1
Carpark Levels: 9
Age of Block: 19 Years

RESIDENT SURVEY RESULTS

Your building has an estimated 361 vehicles. 87% of survey responses are in favour of charging facilities with a preference for Shared User Pays deployment.

ESTIMATED
NUMBER OF
VEHICLES

361

ESTIMATED
ANNUAL CO2
EMISSIONS

366
Tonnes

IN FAVOUR OF
EV CHARGING

87%

MAJORITY
PREFERENCE

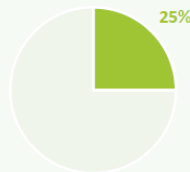
Shared
User Pays

RESIDENT ENGAGEMENT

There were 83 responses to the survey for your building. This represents approximately 25% of all apartments.

Buildings that participated in the survey received a response rate of between 3% and 53%. As of the date of this report 109 buildings participated in the study.

Response Rate



Typical Split

- Owner Occupier
- Owner Investor
- Resident

Some property developers are on board



Focused on Sustainability

Genesis Shepherds Bay values and has put emphasis on being a truly sustainable development. The development will have a focus on energy efficiency, renewable energy, water efficiency and communal green roof at the core of its design. Whilst developing a sustainable building is important for the environment it also has direct benefits to the owners with 'green buildings' enjoying lower operating costs which drives additional value into the units.

Some key elements of sustainability at Genesis Shepherds Bay are:

- A community solar system which can share solar power inside individual apartments
- Smart metering allowing all residents to bulk-buy electricity together, saving money
- Ready for electric vehicle recharging
- Carbon emissions reduction equivalent to planting over 2,000 trees, 7 times the national target for 2020
- Wattblock 5-Star energy rating

[Click here to download the full WattBlock Building Report](#)



The study went national

115 apartment blocks have participated so far.

900+ residents within those apartment blocks have participated.

Participants from:

- Sunshine Coast
- Brisbane
- Gold Coast
- Sydney
- Melbourne
- Perth (coming soon!)

Provided input to:

- City of Melbourne
- City of Perth
- North Sydney Council
- Kuring-Gai Council
- NSW Department of Industry
- Department of Planning, Lands & Heritage (Western Australia)



More information



Brent Clark

Director, Wattblock

0414 900 515

brent.clark@wattblock.com.au

wattblock.com/publications

Twitter @wattblock

