

WATTBLOCK ENERGY REPORT

EV SURVEY RESULTS

Survey conducted from 5/12/2019 over a period of 14 days

Sample Building
1 Sample Street
Sample Suburb, NSW 2127

Type: High Rise
Blocks: 1
Apartments: 130
Residential Levels: 8
Commercial Levels: 1
Carpark Levels: 2
Age of Block: 14 Years

RESIDENT SURVEY RESULTS

Your building has an estimated 151 vehicles. 47% of survey responses are in favour of charging facilities with a preference for Individual User Pays deployment.

ESTIMATED
NUMBER OF
VEHICLES

151

ESTIMATED
ANNUAL CO2
EMISSIONS

200
Tonnes

IN FAVOUR OF
EV CHARGING

47%

MAJORITY
PREFERENCE

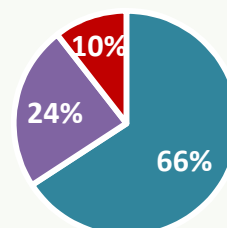
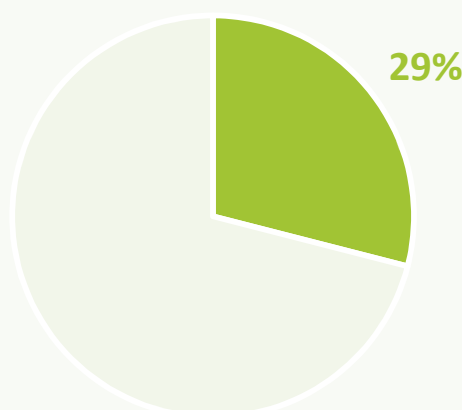
Individual
User Pays

RESIDENT ENGAGEMENT

There were 38 responses to the survey for your building. This represents approximately 29% of all apartments.

Buildings that participated in the survey received a response rate of between 4% and 94%. As of the date of this report 140 buildings participated in the study.

Response Rate



Survey Split

■ Owner Occupier
■ Owner Investor
■ Resident

POSITION ON EV CHARGING

47% of respondents are in favour of installing EV charging facilities. This compares with 74% in favour for a typical building.

Residents of your building were less likely to respond 'yes' to this question than the typical building.

Are You In Favour Of Installing EV Charging?

Your Building



Typical Building



RESIDENT DRIVER PROFILE

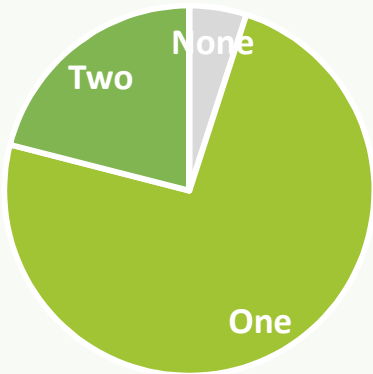
Across approximately 151 vehicles in your block, a total of 1,166,000kms are travelled each year, which requires 128,000 litres of petrol and costs \$166,000 per year.

VEHICLE ACCESS

The residents of your building keep an average of approximately 1.2 vehicles, compared with 1.3 for a typical building.

This includes 5% of respondents that do not have a vehicle. This compares with 8% for a typical building.

How Many Vehicles Do You Keep On Your Lot?

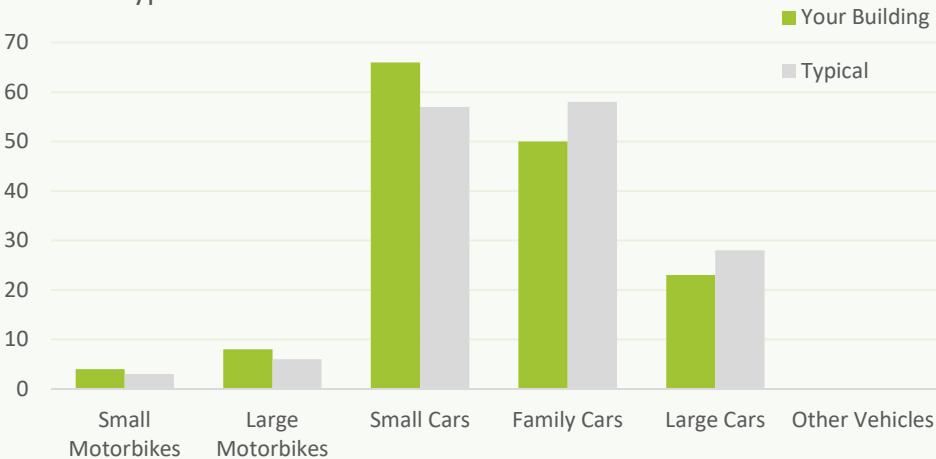


VEHICLE DISTRIBUTION

The residents of your building were most likely to drive Small Cars, estimated to be 44% of all vehicles or 66 in total.

Family Cars are the most common in typical buildings accounting for 38% of vehicles.

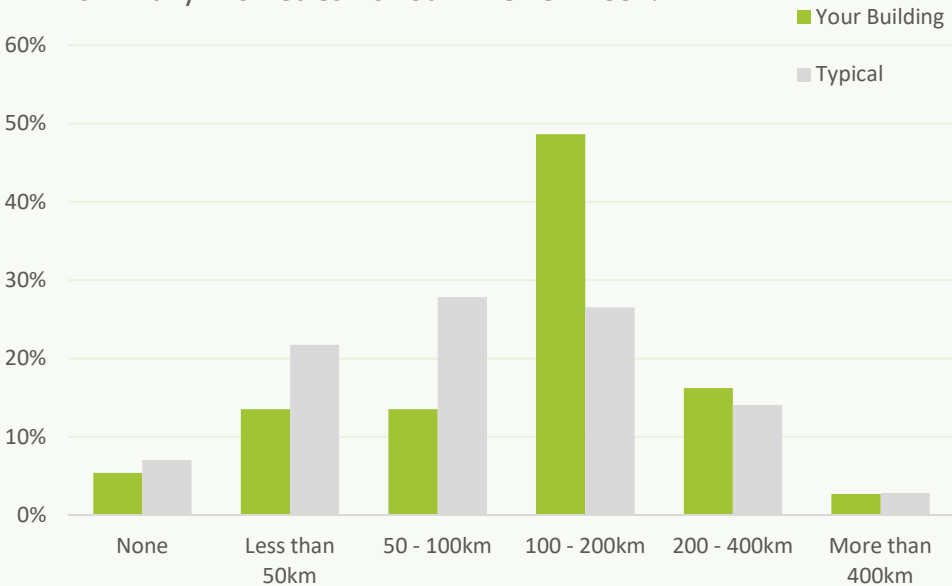
What Types of Vehicles?



DISTANCE TRAVELLED

The residents of your building drive an average of approximately 149 kms per week, compared to an average of 122 kms for a typical building.

How Many Kilometres Do You Drive Per Week?



ELECTRIC VEHICLE
BUYING INTENTIONS

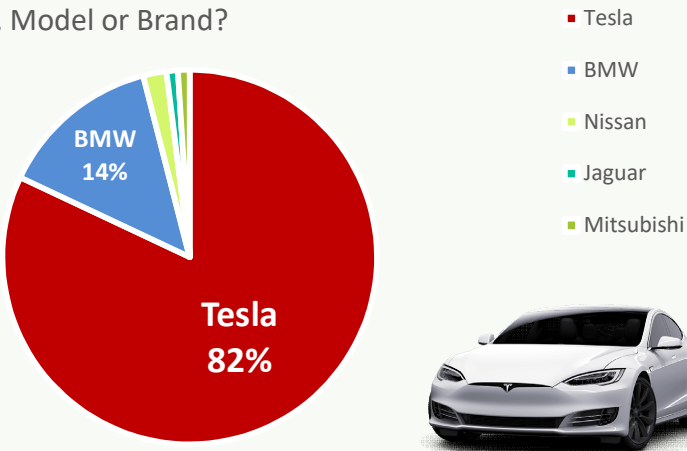
Among the 47% of respondents in your building who were in favour of EV charging, 72% either already have an electric vehicle or plan to have one in the next 10 years.

BRAND & MODEL
PREFERENCES

For the typical building 82% indicated a preference for Tesla, followed by 14% for BMW.

For your building 2 of 2 responses indicated a preference for Tesla.

Which Make, Model or Brand?

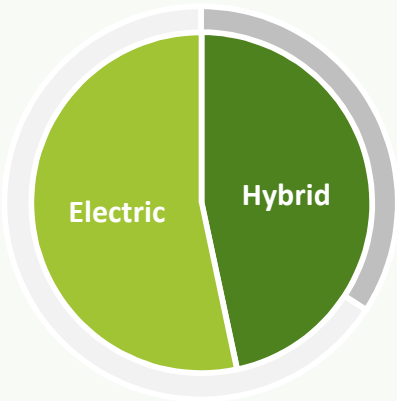


HYBRID OR
PURE ELECTRIC

53% of your residents prefer fully electric vehicles to hybrid vehicles, which is 13% less than the typical building.

61% of respondents expressed no preference.

Hybrid or Fully Electric?



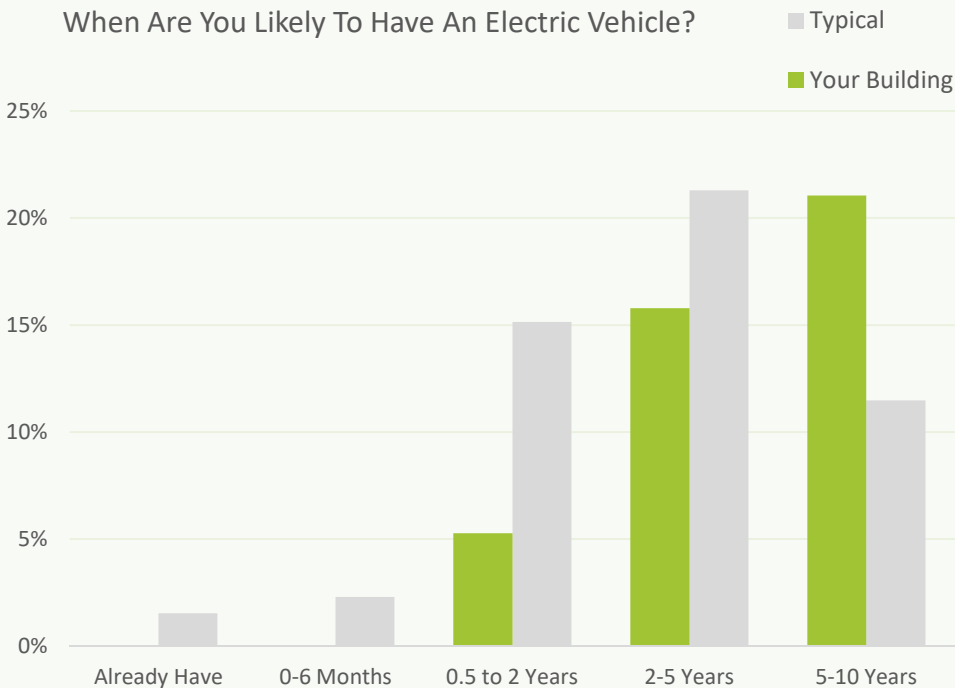
PROJECTED
ELECTRIC VEHICLES

42% of respondents either have or plan to have an electric vehicle within the next 10 years versus 52% for the typical building.

Most respondents expect to have an electric vehicle within 5-10 Years.

The residents of your building were 10% less likely than a typical building to have plans.

When Are You Likely To Have An Electric Vehicle?



EV CHARGING PREFERENCES

If your building were to proceed with Electric Vehicle charging facilities, the majority of respondents expressed a preference for User Pays and Individual chargers.

CHARGING OPTIONS

Charging systems can be set up on visitor car spaces as a shared facility or provided directly to individual car spaces. There are numerous options available.

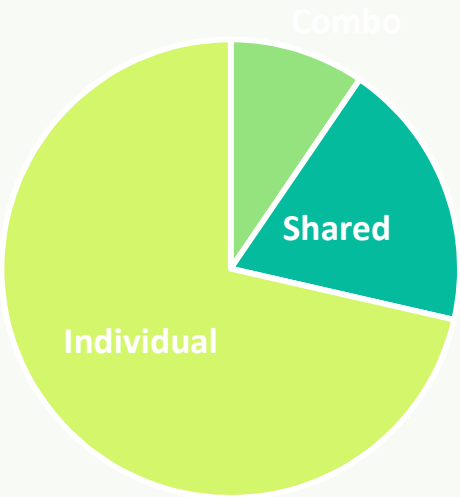


SHARED OR INDIVIDUAL

Do You Prefer Shared or Individual Charging Facilities?

71% of respondents indicated a preference for individual chargers while 19% prefer shared chargers and 10% want a combination.

For the typical building 67% prefer individual chargers.



USERS PAYS OR FREE SERVICE

Do You Prefer a User Pays or Free Service (Paid For by Strata)?

79% of respondents indicated a preference for a user pays service while 15% prefer a free service and 6% want a combination.

For the typical building 81% prefer user pays.



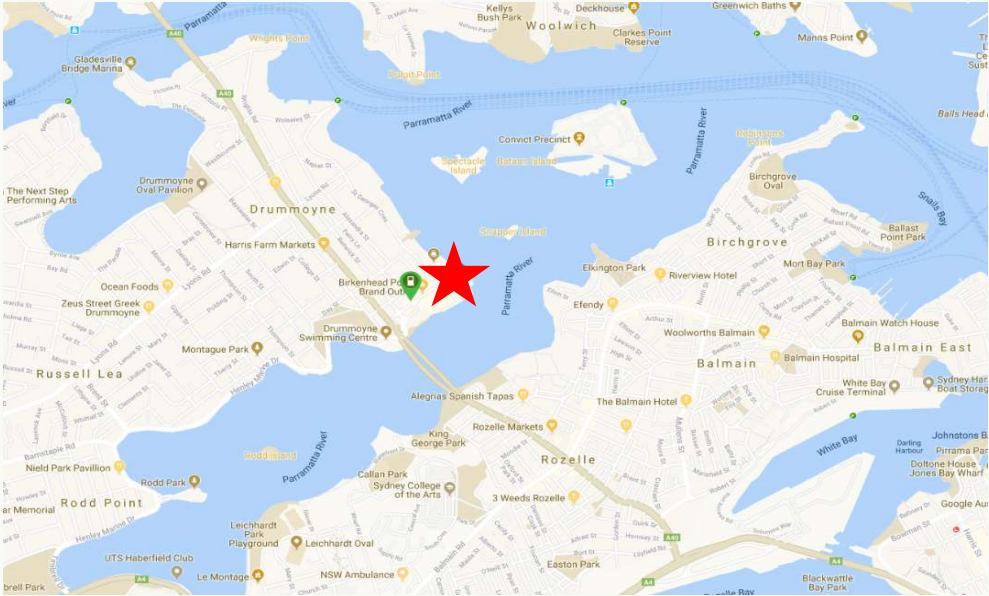
PUBLIC VERSUS PRIVATE CHARGING

Residents in typical buildings showed low awareness of public charging stations and low interest in making facilities available to the public.

PUBLIC CHARGING FACILITIES

There are 1 public charging facilities near your building.

Public charging can lead to faster adoption of electric vehicles and may also alleviate the need for charging in your building.

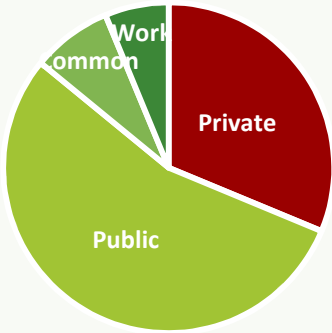
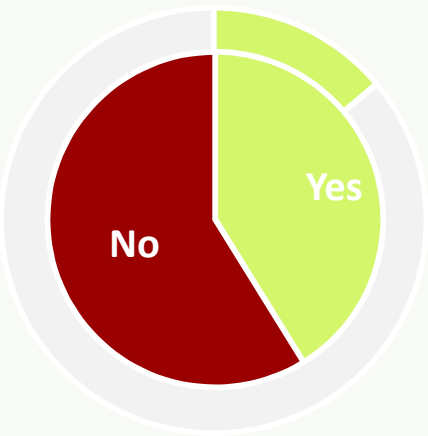


NEAREST PUBLIC CHARGING STATION

41% of your residents knew the location of their nearest public charging station versus 14% for a typical building.

Respondents that have electric vehicles use private (31%) and public chargers (55%) with few using common area power sockets or facilities at their work.

Do You Know Where Your Nearest Public Charging Station Is?



Charging Behaviour

CREATE PUBLIC EV CHARGING

0% of your residents where in favour of your building providing a publically available charging facility. This compares with 2% for the typical building.

A public charging facility may be a source of revenue for the owners corporation.

Are You In Favour Of Making Charging Available To The Public?



COMMENTS & SUGGESTIONS

Survey respondents were invited to provide written comments and suggestions. Long responses may be truncated. You can contact Wattblock for the full transcript.

"If we are providing a service for the refueling of an electric vehicle will we also be doing this for a petrol vehicle? seem prejudice when there are electric recharge stations in SOP. I would not be happy to contribute to a fund to have these installed into the building. 15% usage in 10 years is still a minority in the market and a very vague guess as it is only currently at 2.1% as at 2018. This is an unstable and developing technology and it is not mainstream."

"Apartment dwellers should be discouraged from driving plug-in electric vehicles. Until the charging is done by renewable energy, the cars will effectively be coal-powered. This is a disaster for the environment. Please avoid the deluded rush to this coming fashion. Plug-in electric vehicles make sense for freestanding homes with PV on the roof."

"I think we should focus on visitor parking and residents continued use of disabled parking over electricity charging bays."

"The cost to upgrade the facilities for the suburb would be excessive. And the impact on the grid would be substantial"

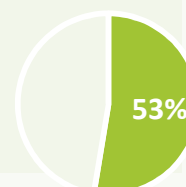
"I would consider to buy an electric vehicle if charging stations are available."

"is the chargers safe from electromagnetic?"

"Don't take a visitor car space out as an electric charging station"

"It is unfair to put out this survey without including details on how much this would cost to install and maintain. Price should be a factor when deciding on something that's likely to be as expensive as this."

53% of respondents indicated they would like to see the report



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Who is Wattblock?

Wattblock was started by Brent Clark and Ross McIntyre in 2014. They are joined by Jacky Zhong solar engineer and NABERS assessor, Wilson Huang solar engineer and Peter Langley, industry analyst.

What is Wattblock's mission?

The energy wasted in Australia's strata buildings has a bigger impact on carbon emissions than the cars driving on the roads. Wattblock aims to fast track the achievement of Australia's national carbon emission reduction target.

How many strata buildings has Wattblock assisted?

Wattblock has assisted approximately 1,000 strata buildings across Australia with energy reports. Wattblock has also directly project managed the upgrade of 100 buildings with LED lighting, solar, ventilation and hot water. To date it has identified over \$25m of annual energy waste across townhouses to high-rise residential skyscrapers. Over 140 strata buildings have participated in electric vehicle recharging studies.

Who is partnering with Wattblock?

NSW Innovate, Advance Queensland, North Sydney Council, Microsoft CityNext, Telstra's muru-D, the University of NSW, Griffith University, University of Queensland and Queensland University of Technology.

Who is covering Wattblock in the media?

SBS, North Shore Times, Foxtel, BRW, The Australian, Business Insider, Computerworld, StartupSmart, StartupDaily, LookupStrata, Technode, Fifth Estate, One Step Off the Grid, Renew Economy.

Wattblock Awards

Innovation of the Year - Strata Community Australia (NSW), Best Social Change Entrepreneur 2015 (Start-up Smart) Energy Winner at 1776 Challenge Cup Sydney, CeBIT Community Support Finalist (2015).

Who is backing Wattblock?

Wattblock has received investment from muru-D as part of Telstra's startup accelerator program, Eastern Hill Investments, an Asian-based environmental engineer, a UK-based energy company consultant, a U.S.-based hi-tech investor, a NZ sustainability funds manager, a Sydney-based environmental impact investor, a Sydney-based clean tech consultant, a Sydney-based clean technology finance consultant and an innovation laboratory research director.

Where is Wattblock located?

Wattblock is based at Michael Crouch Innovation Centre at UNSW in Sydney.