

Apartment EV Charging Options

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Apartment EV Charging Summary

Thanks for making contact with JET Charge regarding EV charging in your apartment building. EV charging in apartments can be complicated due to the nature of new technology and the different stakeholders involved in apartment settings. We hope this document provides a good starting point to understand the options available so you can start your EV charging journey.

As EV charging will inevitably require modifications to common property, this document is aimed at Owners' Corporations and anyone acting on behalf of an Owners' Corporation. If you've received this document as a resident or tenant, we request that you pass this document onto your Owners' Corporation so that we can continue the discussion with them around EV charging at the building – but please feel free to read along as well!

This document presents shared and private charging (via an EV Backbone) as the two options for apartment EV charging. Shared charging presents a good short-term solution, whereas deploying an EV Backbone is a larger project that sets up the building for long-term EV charging in private car spaces.

The JET Charge CORE load management system and the Chargefox Billing Software are two key pieces of technology introduced in this document that answer common questions around protecting the power supply at your building and how to ensure users of EV chargers pay for the electricity they use.

We trust that this will provide a starting point for future conversations and we look forward to building an electric future with you.



Apartment Charging Options



Shared AC Charging

Starting Budget \$5,000 Pg 8



Shared DC Charging

Starting Budget \$25,000 Pg 11



Backbone Private EV Charging

Starting Budget \$2,000 per lot owner

Pg 14





EV Charging Roadmap

EV Charging Options and Budget	Power Analysis	Budget Approval and Timelines	Final Quotation	Approval	Implementation	Handover and Ongoing Service
includes budget costs for EV charging options. This provides a starting point for decisions on your	Before providing a firm scope and pricing, power analysis may need to be performed to confirm the spare power at the building.	With a budget for the project and feasibility confirmed through power analysis, we can then work with you to confirm how you will fund the project and the timeframe for commencement.	With a funding path and timeline confirmed, we can then work with you to obtain a quotation and scope that can be actioned.	With the firm quote in hand the Committee can undertake any required internal approvals for the project spend.	If the project is approved, we will work with you to plan the installation.	At project completion we will provide handover information for the system operation. We'll also assist with ongoing service to ensure the smooth operation and expansion of the EV charging system at your building

Power Analysis and Design





Power Analysis and Design

- EV chargers draw significant power 1x EV charger can draw as much power as an entire apartment unit
- Before determining the most suitable EV charging option for your building, we may need to understand how much spare power is available
- Two critical pieces of information are required to confirm power available:
 - 1. Maximum demand of the site (this is the highest power draw of the entire building)
 - 2. Power supply available to site (this is the power allocated to the building from your power authority)

As a first step and to confirm the EV charging system design for fixed installation pricing, a power analysis of the MSB can be performed to confirm the power available for EV charging.



Shared AC Charging



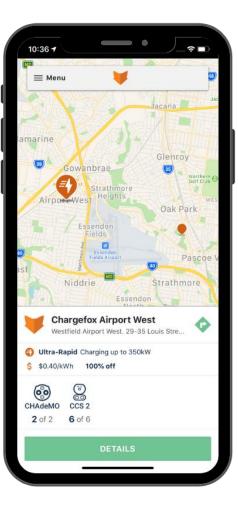


ChargeMate 7/22kW

Designed and Built for Apartment Charging

- Certified Australian Made
- OCPP compliant
- RFID enabled for authentication
- Type 2 socket (universal to all EVs)
- Charge speed: 7/22 kW (30 100 km / hr of charge)
- 3 year warranty
- Committee pays for all upfront and operational costs of EV charger
- Resident pays for all electricity usage for EV charging at charger





Chargefox Billing Software

- Billing and metering solution required when EV chargers are connected to building common power
- Electricity usage initially paid for by Committee (through existing energy bills) but billing software allows recovery of costs from EV owners
- EV owners billed at \$ / kWh rate set by Committee with funds collected by JET Charge and reimbursed to the Committee quarterly
- All reimbursements performed automatically so no management overhead required by Committee
- Chargefox is the largest public charging network so makes for a seamless transition from public to home charging
- Operation of EV charger is performed via Chargefox free app or RFID cards to start and stop charging sessions



Shared DC Charging





Zerova 30kW

Premium offering for shared EV charging systems

- OCPP compliant
- Can be fitted with CHAdeMO and CCS2 plugs (can charge all EVs, but only one plug can be used at a time)
- 30 kW charge rate (Approximately 150km / hr of charge)
- 2 year warranty
- DC chargers are currently suffering long lead times, please speak to us about current lead times and availability
- Committee pays for all upfront and operational costs of EV charger
- Resident pays for all electricity usage for EV charging at charger (via Chargefox software)



Shared Charging Pricing



Total Cost	
\$5,000	
\$625 ex GST per year	
\$ / kWh rate set by the Committee	
5% of all monies reimbursed to the Committee	
Total Cost	
\$25,000	
\$1,000 ex GST per year	
\$ / kWh rate set by the Committee	

- Installation costs in the table above assume the location of the EV charger is in close proximity to the connection point and that the installation is not complex in nature.
- Volume discounts for preventative maintenance of multiple chargers at one site are available
- This is to be used as a starting budget to provide an indication of the scale of investment required.

EV Backbone



EV Backbone Overview

Power monitoring of MSB and application to power authority to confirm available power for EV charging and finalise system design	Installation of electrical and communications infrastructure to provision all car spaces for EV charging. Includes provision of the CORE load management system and setup of billing solution	With the EV Backbone in place, residents who require EV charging can have EV chargers installed in their private car spaces	CORE load management system to provide ongoing management of EV charging load. Billing solution provided to ensure full cost recovery of electricity usage and servicing of private installations with pre- approved chargers and installers	
Power Analysis and Design	EV Backbone	Private Installations	Ongoing Management and Servicing	
JETCHARGE				



ChargeMate 7kW

Designed and Built for Apartment Charging

- Certified Australian Made
- OCPP compliant
- RFID enabled for authentication
- Type 2 socket (universal to all EVs)
- Charge speed: 7 kW (30 50 km / hr of charge)
- 3 year warranty
- Resident pays for all electricity usage for EV charging at charger (via Chargefox software)



JET Charge CORE

The most flexible site-based load management system on the market

JET Charge CORE is the site's load management <u>hardware</u> that monitors energy usage across site and controls charging to avoid exceeding site capacity.

- 150+ deployments across Australia and New Zealand
- CORE is self contained and immune to communications failures
- Physically connected to EV chargers and power meters
- Brand agnostic with growing list of OCPP1.6 charging stations
- Ability to load manage both AC and DC charging stations
- Optimises use of Solar and Battery Storage Systems
- Built and maintained in Australia with a lifetime warranty

CORE does not require direct user monitoring and is maintained and supported by JET Charge





EV Charging Backbone



Cable Tray provides cable path from DB-EV/EVC Comms racks to EV Chargers

 $\ensuremath{\mathsf{DB-EV}}$ provides electrical connection for EV Chargers



EVC Communication Racks provides communication connection for EV Chargers



Power Meters to provide active monitoring of electrical network



JET Charge CORE Load Management System to enable scaling of EV Charging whilst protecting the building infrastructure



EV Charger Installation



'EV Ready' car space with power and communications cabling



Car spaces with EV chargers installed







Power and Communications cabling to provide connection point for EV charger in car space



Mounting Post for car spaces without a suitable wall surface for mounting

ChargeMate AC charger to provide charging solution

CHARGEFOX

Commissioning of AC charger to load management and billing solutions



Charging Cable for connection from Charger to vehicle



EV Backbone Pricing



Committee Costs	Total Cost
Power analysis and site review	\$2,000 - \$5,000
Installation of EV Backbone	~\$2,000 per lot owner*
Electricity transaction fee	5% of all monies reimbursed to the OC

*The installation of the EV Backbone is a one-off project. For example, a budget for an EV Backbone for a building with 100 lots would be 100 x \$2,000 = \$200,000.

Resident Costs	Total Cost
Supply of ChargeMate 7kW AC charger*	\$1,650 ex GST
Installation and commissioning of ChargeMate 7kW AC charger**	Average cost ~\$3,500 but site depedent
EV Charging Service Fee	\$265 ex GST per year
Software licensing for JET Charge CORE load management system	

• Software licensing for billing services

*This is our recommended smart AC charger for Apartment charging. Please speak to us if you wish to see the full list of approved smart AC chargers

**Installation cost will be dependent on the distance from car space to connection point. Please speak to us about setting a fixed rate for installations in your building.

