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parking solutions made simple

EV charging Procurement Guide

This overview of EV charging infrastructure is designed to provide guidance to **STRATA BUILDINGS** on the steps you need to walk through when assessing installing EV chargers. We've kept it simple and included some key tips on clever decision making.

Let us know if you'd like more detail and we'll send you a more detailed analysis.

KEY TAKEAWAYS

Electrical capability and load management: Calculate your building's electrical capability for power load management and also the appetite for future EV usage.

Use experts to assess your needs: They will save you time and money by advising the most efficient and suitable design given your particular building.

Minimise network upgrades: Minimise work that needs to be done outside your building envelope - dealing with the network is time-consuming and costly.

Be clear in specifications when tendering for EV charging equipment: For tender of EV charging equipment and ongoing services. Experts will help you avoid pitfalls.

Optimise your EV bays: Consider whether you need to install EV chargers in 100% of bays, or using a booking system with smart automated bollards.

Operations and Maintenance: Know what's involved in operating and maintaining these assets and what it's going to cost. This will improve the quality of tender responses.

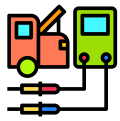
Procurement and Design Considerations

Procurement and design Journey

1. Understand the power consumption profile of your building

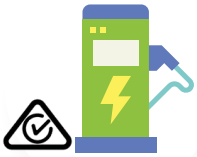
2. Understand vehicle & parking behaviour (surveys, metering)

3. Map electrical services and capacity



4. Develop design for EV chargers

5. Assess and select EV chargers



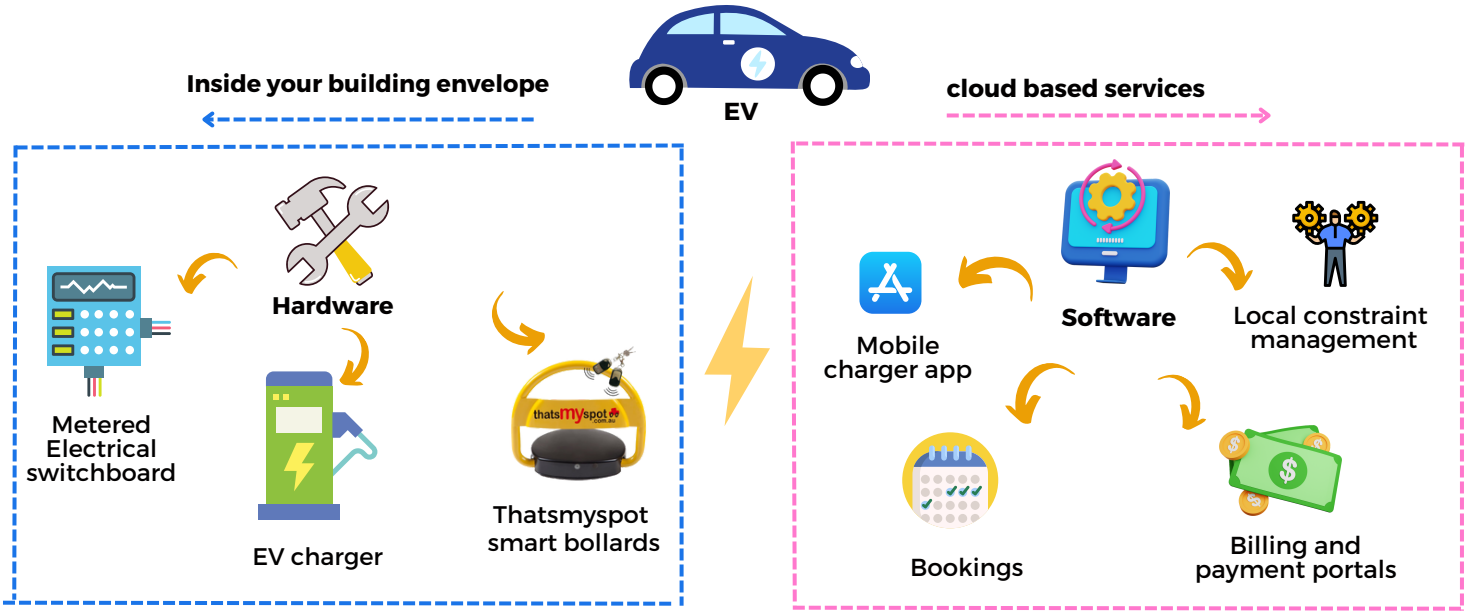
6. Map out tender details - schematics & layouts

7. Award tender to contractor

8. Install, operate and maintain

EV charging infrastructure

Key equipment and functionality for your building



Hardware - Types of EV chargers

AC chargers

- Lower output power
- Slow charging
- Lower capital costs
- Simple: doesn't need to communicate with EV

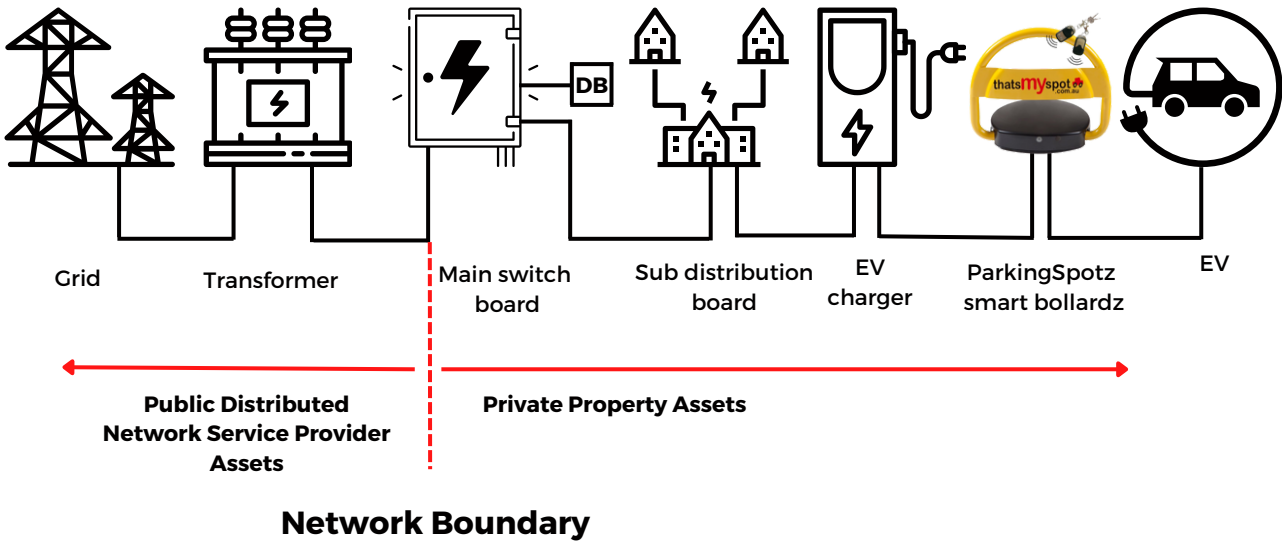
DC chargers

- Higher output power
- Fast charging
- Higher capital costs
- Smarter: Communicates with EV

Functionalities

- Fleet management
- Payment gateway
- Time-of-use payment settings
- Variable payment rates based on user type (e.g., tenant or visitor)
- Charger group management, for instance to limit electrical demand
- Smart charging and remote access for setting parameters or troubleshooting
- Driver interface, including information such as charger locations, charger status and EV state of charge
- Assest manager interface
- Bi-directional Vehicle to Grid charging for the future (V2G)

Installation



Key steps to a successful installation

1. Assess the capacity of all existing electrical infrastructure independently to inform the basis of design and minimise public network upgrades.

2. If public network upgrades are required, ensure that the network operator is provided with a plan of how your installation will grow over time.

3. Assess and select RCM Tick EV chargers

4. Ensure that installations have a comprehensive site specific safety management plan and that the design reflects this plan.

5. Ensure that a post installation inspection is carried out by an independent to check that everything is operating as per the original basis of design. Double check that the load management and payment systems are working as required.

Operation & Maintenance

1	General Maintenance	• Store charging cables safely • Conduct regular scheduled service & maintenance check of chargers to ensure structural integrity • Check weatherproofing, and functioning of sockets and plugs regularly • Regular software upgrades for chargers and point of sale terminals
2	Operating EV charging stations	• Dedicated EV charging bays available for use by any EV driver on a shared basis • Enforce no ICEing - EV bays to by used for EV charging only (consider smart bollards to ensure) • payment systems (if applicable) are online • Energy supply as per retail and network contracts • Ensure all site amenities are safe and functional for power load
3	Managing Operational costs	• Adjust pricing at regular intervals in line with your electricity contract • Install a back up battery or other demand-side energy management solutions • Negotiate appropriate electricity tariffs • Consider renewable energy options
4	Future Proofing	• Conduct comprehensive assessment of energy contracts • Assess renewable energy options, (solar, wind) and batteries • Plan for other fast-moving energy and e-Mobility trends

Contact

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EV Charging Procurement and Design Considerations

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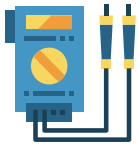
3. 

Map electrical services and capacity

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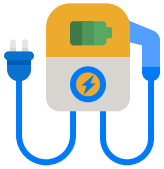
5. 

Assess and select EV chargers

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Map out tender details - schematics and layouts

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Award tender to contractor

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Install, operate and maintain