

Application of electric vehicle charging infrastructure

Electric vehicle charging infrastructure is applied in a variety of ways, in order to best meet the needs of the client given the site constraints. We have categorised common types as follows:

- Inter-regional service station;
- Urban service station or “hub”;
- Shopping centre rapid charger;
- Multi-level car park system;
- Outdoor car park destination charger; and
- Public kerbside destination charger.

Inter-regional service station

A destination enabling site marketed at tourists and high mileage workers or travellers, inter-regional service stations feature level 3 DC fast chargers, multiple charge points, ancillary electrical equipment, on-site amenities and landscaping. They are located on key transport routes at entrances to towns, or along major highways.

Urban service station or “hub”

Marketed at tourists and electric vehicle drivers without access to home/work chargers and high-mileage commercial vehicles, urban service stations feature level 2 and 3 fast chargers, multiple charge points, ancillary electrical equipment and landscaping. They are often located along main roads, at entrances to towns or near commercial or industrial centres.

Shopping centre rapid charger

Marketed at tourists and electric vehicle drivers without access to home/work chargers and shoppers, shopping centre rapid chargers feature level 3 DC chargers, ancillary electrical equipment, very low civil costs if incorporated into new build, and utilise shopping centre embedded network.

Multi-level car park system

Marketed at tourists and local residents without access to home/work chargers, multi-level car park systems feature level 2 AC chargers, multiple charge points, load management system and utilise existing car park electrical. They are designed to service people visiting shopping centres, airports, business hubs or nearby attractions where the expected duration of stay is a few hours.

Outdoor car park destination charger

Often managed and installed by Councils and marketed at tourists and electric vehicle drivers without access to home/work chargers, outdoor car park destination chargers feature level 2 AC chargers, multiple charge points, ancillary electrical equipment and landscaping. These are generally located near local attractions, central business districts or community facilities.

Public kerbside destination charger - Pedestal

Marketed at tourists and electric vehicle drivers without access to home/work chargers, public kerbside destination chargers feature level 2 AC chargers, feature rich all-in-one EVSE and are located close to amenities. These are generally installed by Councils in key locations, or by businesses wanting to service clients, customers or staff.

Feature-rich all-in-one EVSE refers to the ability to control who can draw power/connect, charge a fee, send and confirm credit card details, turn on/off remotely, determine how fast they can charge, send data via 3G to a cloud data-base etc., rather than this being done by a separate controller or power management unit - that is, the feature rich components are built-in.