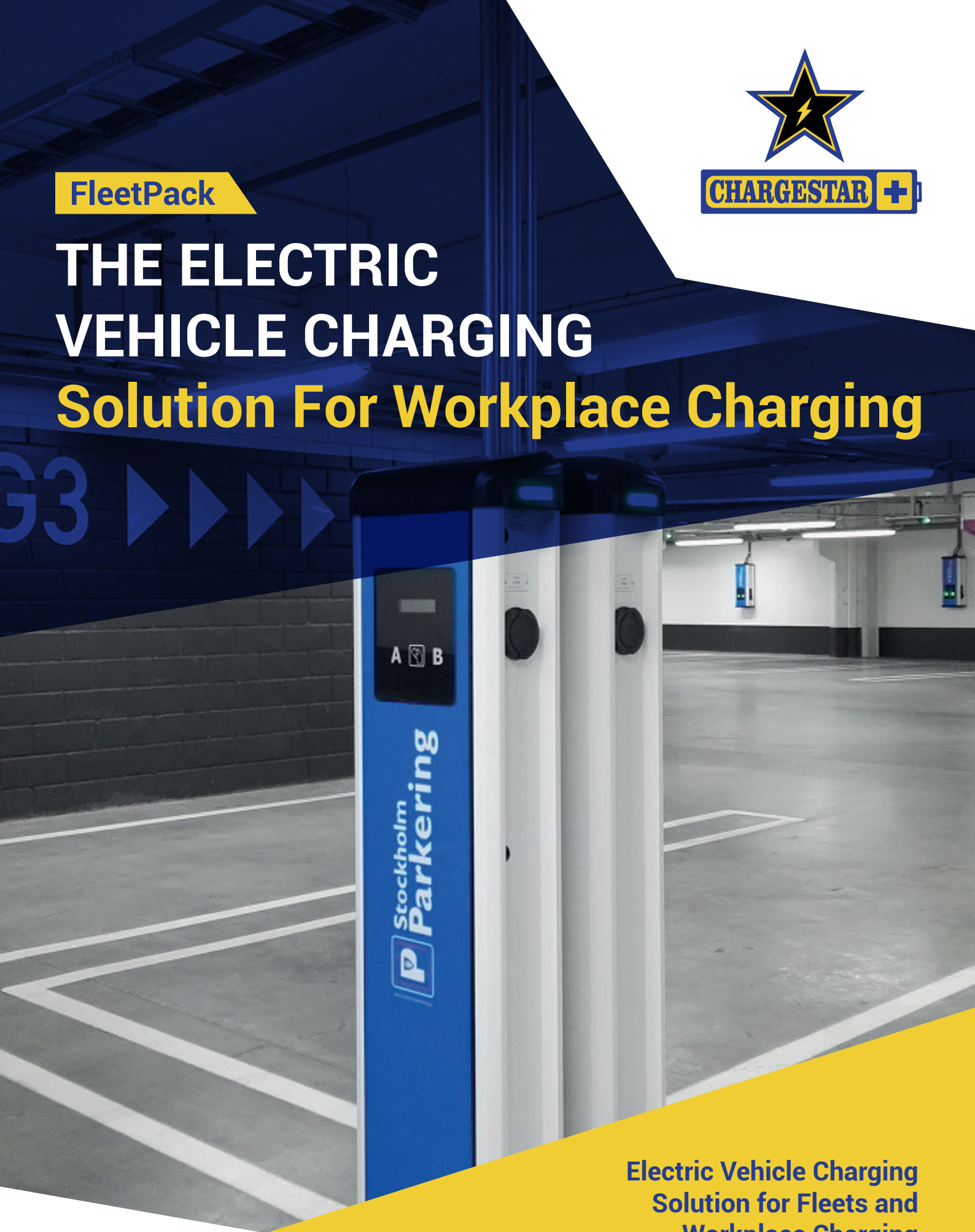
FleetPack

THE ELECTRIC VEHICLE CHARGING Solution For Workplace Charging



Electric Vehicle Charging Solution for Fleets and Workplace Charging

www.chargestar.com.au

ABOUT CHARGESTAR

Chargestar is an MSP (Managed Services Provider) that supplies, installs and maintains charging stations and provides network management services for charging station networks.

Chargestar creates charging station infrastructure solutions designed to help our clients transition to a zero emissions transport future and optimise revenue from commercial electric vehicle charging operations. Chargestar is not aligned to any charging station manufacturer or network management system software platform. Chargestar avoids vendor lock in by choosing products and services that are interoperable and compliant with open standards. Chargestar designs optimal solutions for its clients using a variety of hardware suppliers and software platforms

CORE SERVICES

- **DESIGN AND CONSULT –** Our electrical engineers will design a cost effective solution that minimises the upfront capital expenditure required to install the electrical infrastructure needed to support electric vehicle charging stations.
- **SUPPLY -** Charge Star provides a variety of AC and DC charging stations from various manufacturers designed to suit the specific requirements of the customer. Decisions about the choice of hardware suppliers are made objectively.
- **INSTALLATION -** Charge Star only utilises a team of highly experienced electrical contractors that have received training provided by the charging station manufacturers.
- **NETWORK MANAGEMENT -** Network management and driver management services for charging station providers either on the Charge Star Network or as a managed service on the customer's network with customer branding.
- **LOAD BALANCING -** Cross platform load balancing solutions for both AC and DC charging stations. Compatible with all OCPP smart charging complaint charging stations.
- **BILLING AND ACCESS CONTROL -** Billing solutions for public and private charging. APIs for integration with existing third party billing solutions and embedded metering systems in commercial developments and apartment blocks. Complex tariff models including time of day charging, peak time charging and charging by driver group. All charging stations come with a credit card option.
- **WHITE-LABEL OPTIONS –** White labelling of smart phone payment systems for own brand marketing is available with a variety of different platforms to choose from.
- **FLEET CHARGING -** Our Fleet Manager Portal empowers you to manage and control all aspects of your EV fleet charging operations to maximize utilization and reduce energy costs by leveraging smart charging capabilities.

WA Government ChargeUP Grants Program

The WA Government is providing $15 million in grants for local authorities, small to medium size businesses and non for profit organisations. The grants will fund up to 50% of the cost of acquiring and installing AC charging stations and 75% of the cost of a two year subscription to a network management and billing service.

Charge Up Workplace Grants are designed to make it easier and more cost effective for small to medium enterprises, not-for-profit organisations and local government authorities to install EV charging equipment at their workplace.

Electric vehicle charging stations can be installed in workplace car parks, vehicle depots and visitor car parking bays. Charging stations may be made available to the public for paid charging provided paid charging is ancillary to and not part of the core activity of the organisation. For example, locations such as tourist destinations, cafés, recreation centres and wineries can avail of the grants scheme to install AC charging stations for paid charging.

To make the most of the abundant solar energy in WA, the grant has a strong focus on charging EVs during the day. It seeks to maximise charging opportunities at places Western Australians attend during the course of our daytime activities. The grant also seeks to minimise extra electricity use during our already busy evening peak.

Electric vehicle charging station operators are exempt from the requirement to hold licences for the distribution and sale of electricity under sections 7(3) and (7(4) of the Electricity Industry Act 2004. See the Electricity Industry Exemption Order 2005 currently extended to 2024.

Extension of Licence Exemptions - Electric Vehicle Charging Stations

ROUND ONE: WHAT YOU NEED TO KNOW

Round one has an allocation of $3.75 million and will be open from **16 February 2023** until **COB 12 May 2023**.

Please note that applications will be assessed on a first come, first served basis. Round one may close before **12 May 2023** if the funding allocation is fully expended.

Grants in round one fund the following for up to 4 EV chargers per site (for a maximum of 5 sites):

- 50% of the purchase cost of level 2 (7 to 22 kW) EV chargers chosen from an approved list
- 50% of installation costs
- Funding caps of $5,000 per site apply in the Greater Perth area and $10,000 per site apply in regional and remote areas
- 75% of the cost of a 2-year EV charger software subscription, chosen from an approved list.

Eligible applicants can only make one grant application in Round One.

Chargestar offers:

- Advice from our incredible team of EV experts with 12 years experience of building electric vehicle charging infrastructure.
- A wide choice of approved OCPP software providers to allow you to monitor and monetise your EV stations. No one size fits all.
- Choice of approved charging stations from Australia's leading brands.
- Turn key installation quotes with quick installation once approved

ENext

EVolve Wallbox

EVolve Bollard

Charge Up Workplace EV Grants criteria: check if you're eligible

- Applicants who will use the EV charger to charge during daytime hours (9am to 5pm) or overnight (9pm to 9am). In general, charging that occurs mainly during the evening peak of 5pm-9pm will not be supported by the grant.
- Applicants who will install the EV charger at a location within Western Australia Applicants who are one of the following types of organisations:
- Not-for-profits registered with the Australian Charities and not-for-profits commission (ACNC)
- Local government authorities established under the Local Government Act 1995
- Small to medium enterprises as defined by the Australian Bureau of Statistics, being either a small business employing less than 20 people, or a medium business employing between 20 and 199 people.

Some exclusions to these organisation types apply.
Refer to page 19 of the Guidelines for a list of 'who is not eligible'.

The types of charging situations we expect to co-fund as part of the Charge Up Workplace Grants include:

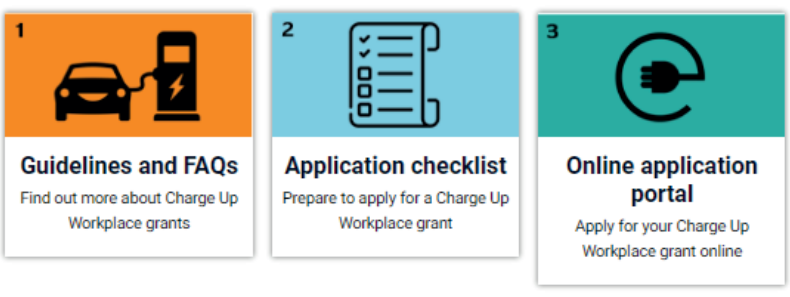
- **Destination charging:** Charging at destinations that people typically spend a few hours at during the day. For example, tourist or cultural attractions, cafés, wineries, beaches, swimming pools, parks, or other outdoor leisure activity facilities.
- **Car parks:** Car parks of eligible organisations for employees and visitors to charge their EVs.
- **Fleet vehicles:** Chargers which are intended to support the conversion of fleets to EVs.

EVolve Wallbox: Master-Slave

EVolve Bollard: Master-Slave

Applying for a grant : three easy steps for you to follow

- Read the Guidelines and FAQs. This provides all the information you need to know before you decide to apply.
- Download the application checklist. This outlines all the information you need to prepare for your application.
- Apply on the online portal. Upload your application information online.



Network Management

CasaCharge

Chargebay

EVERTY

Smart Charge

Load Management

coneva

Coneva AC/DC Load Management

Planning For Charging - Considerations

Battery capacity and range

The average electric car battery has a capacity of 50 to 75 kWh. A kWh is like a litre of petrol. Cars charge relatively quickly to 80% before the charging rate starts to slow. **Charging to 80% is regarded as a "full charge".** A driver needing a full charge requires on average, **50 kWh.**

Electric cars have a range of 300 km or more at freeway speeds. Overnight charging is sufficient for most cars except in cases where the vehicles are used for long distance travel or continually used throughout the day.

AC Charging

Drivers needing a full charge (50 kWh) will need around 5 to 7 hours at an AC charging station depending on the rating of the station. A 7 kW station will charge a car to 80 % in around 7 hours and eight and a half minutes. A 22 kW station will charge a car to 80% in around 2 hours and 16 minutes provided the car can take 22 kW. Most electric cars can draw between 7 kW and 11 kW from an AC station. The power of a 22 kW AC station will never be fully utilised until such time as 22 kW becomes the standard AC charging rate for electric cars.

DC Charging

Drivers needing a full charge (50 kWh) will spend between 15 minutes to an hour at a DC charging station depending on the rating of the station. A 350 kW DC station will charge a car to 80 % in 15 minutes. A 50 kW DC station will charge a car to 80% in an hour. A 25 kW DC station will charge a car to 80% in two hours.

AC charging stations are the best choice for workplace charging because:

1. Cars with a range of 300 km or more do not need charging during the day. The cars can charge overnight on a 7 kW AC station.
2. Drivers prefer to have dedicated charging stations for each car rather than queuing for DC charging stations.
3. Most organisations cannot afford to have employees hanging around the DC charging station for 20 minutes to an hour while the car charges.
4. Drivers invariably leave cars for long periods at DC charging stations blocking other drivers. The drivers become distracted by work related activities and forget to move the car.
5. Backup AC charging stations are required anyway in case the DC charging station goes down.
6. DC charging stations of 100 kW pr more can be massively expensive to install. In most cases the cost of the installation is higher than the cost of the charging station.
7. AC stations are much cheaper to acquire and install.
8. One DC charging station charges at most two cars at the same time. Drivers must queue
9. AC charging is a better solution for fleet charging because each car has its own parking space with an AC charging station and there is no contention for charging stations.
10. Load balancing systems for DC charging stations are expensive and proprietary whereas load balancing systems for AC stations are relatively cheap and cross platform.
11. A single DC charging station may be useful if a driver forgets to charge overnight.

Parking Spaces – Number and Positioning

- How many parking spaces will be allocated for electric vehicles?
  - Budget for 1 charging port per parking space.
  - A twin socket station has two charging ports.
- How far are the parking spaces from the power supply/distribution board?
  - Installations that require cable trays or trenching are more expensive.
- Are the parking spaces located next to each other or spread out over the parking area?
  - Cable trays or trenching may be required.

- How close are the parking spaces to the office network?
  - The charging stations may need to be connected to a remote management system for management reporting, access control and billing. It is more cost effective to connect the charging stations to the office network by wireless or ethernet cable. Otherwise 4G sim cards are required. The annual fee for a SIM card is around $130 per year..
- Will the parking spaces require protective bollards?
  - Free standing charging stations may require protective bollards.
- Will the parking spaces require line marking and signage?

Charging Stations

- Do you require single socket or twin socket stations?
  - A twin socket charging station serves two co-located parking spaces. Twin socket charging stations are generally cheaper to acquire and install.
- Should the station be wall mounted or bollard mounted (free standing)?
  - The decision depends on the site characteristics. Wall mounted charging stations are generally cheaper to install.
- Should the stations be Single phase (7kW) or three phase (22 kW)?
  - Single phase charging at 7 kW is adequate for overnight charging.
  - Twin socket charging stations should be rated to 22 kW. One car charging gets up to 22 kW. Two cars charging get 11 kW each.
- How much power is available on site?
  - Is there enough power to charge all the cars at the full rate all the time.
  - E.G. 10 charging stations rated to 7 kW is 70 kW.
- Will load balancing be required?
  - Load balancing may be required if there is not enough power to charge all the cars at the same time at certain times of the day or during the night.
  - E.G. 10 charging stations rated to 7 kW is 70 kW but there is only 40 kW available during the day because the office air conditioning is running. Solution: restrict charging during the day.
  - E.G. 10 charging stations rated to 7 kW is 70 kW but the dedicated power supply for the charging stations is only 40 kW. Solution: restrict charging so that the 40 kW limit is never exceeded.
- Will access control and billing (public charging) be required?
  - Access control may be required to restrict usage of the charging stations to fleet cars.
  - Billing may be required if the charging stations are made available to members of the public.
  - Corporate RFID cards may be required so as to allow free charging for fleet cars and paid charging for members of the public

Fleet Pack is an integrated electric vehicle charging station solution deigned for fleet and workplace charging. Fleet Pack provides the hardware and software required to install and operate electric vehicle charging stations in workplace car parks and vehicle depots. Fleet Pack is suitable for locations where cars charge for an hour or more during the day or charge overnight. Fleet Pack reduces capital expenditure by monitoring and load balancing charging stations so that expensive grid upgrades are not required. Fleet Pack ensures the charging load does not exceed the power capacity of the parking area or the power capacity of the building.

FLEET PACK COMPONENTS

CHARGING STATIONS

- Wall mounted or bollard mounted electric vehicle charging station
- Single socket or twin socket
- Single phase or three phase. Single phase recommended for overnight charging
- Tethered cable or socket only
- Network capable, OCPP compatibility, DC leakage protection and MID certified meters

PAYMENT SYSTEMS

- Credit Card/EFTPOS/NFC
- RFID card/smart phone app
- Integration with existing embedded network metering systems
- APIs for integration with third party payment systems on request
- Charge per kWh, per minute or any combination of the two
- Dwell time charges.
- Time of day differential pricing for peak demand periods
- Group tariffs for customers such as taxi drivers, sales people, etc
- Fuel card option for fleet managers. Charge on any Hubject enabled network
- 24 hour hour payment cycle. Funds paid directly to the charging station owner
- Parking meter model. The charging station owner is the electricity retailer.
- GST receipts issued with charging station owner ABN contact details.

NETWORK MANAGEMENT

- Charging station monitoring and reporting of usage and charging session data
- Firmware and software updates
- Remote control of charging stations
- Telephone support for drivers
- Web based network management and administration portal
- Sub portals with granular permissions can be created for charging station owners
- Dashboard overview with network map
- APIs for integration with third party control systems such as building management systems
- APIs for load control and demand response signaling by grid operator.
- Interoperability with other networks via Hubject
- ISO 15118 Plug & Go Charging capable
- Carbon credit capable
- Supported out of Melbourne and Perth.

LOAD BALANCING

- Proprietary or cross-platform
- Static across charging stations where the charging stations use a dedicated power supply
- Dynamic across charging stations where the charging stations use a shared power supply
- APIs for integration with third party control systems such as building management systems
- AC and DC capable. Load management of AC and DC charging stations in the same cluster
- On-site appliance or cloud based load management

ENEXT ELITE - SINGLE SOCKET CHARGING STATION

Networked charging station for business users

The ENext Elite is a networked charging station for business users. The station is OCPP compliant and compatible with any OCPP compliant charging station network management system. The station has an NMI R-46 (OIML R46/Mid Certified) compliant meter, embedded 4G modem, wi-fi, ethernet and an RFID card reader. The station has on-board DC leakage protection. Outlets can be socket only or tethered cable. The station can be connected to a Beon CT clamp for static load control. The station can respond to demand response grid utility load management signals via a contactor open and closed by a remote signal. The station can be wall mounted or pole mounted.

FEATURES

- ABS/PC plastic housing: Robust Plastic material to resist severe environmental conditions including UV rays and mechanical stress
- LED Beacon: Colour LED system that indicates the status of the Charge Point.
- Display: Colour screen that shows the necessary information about the charge and the status of the Charge Point and gives instructions for its use.
- NMI R-46 (OIML R46/Mid Certified) compliant meter.
- RFID reader: Limit the use of the Charge Point to the users with an authorised RFID identification.
- 6 mA DC leakage detection guarantees the highest safety protection. RCBO can be included as an optional
- Network connectivity
  - Comes with wi-fi and ethenet as standard. Optional 4G with SIM card.
- Easy to configure via web pages.
- Ability to schedule charging by the hour and limit current by the hour.
- Ability to limit current for the whole station. E.G. reduce from 32 amps to 16 amps.
- Beon current clamp for dynamic load management.
- Connects to CT on main circuit via twisted pair wire.
- Stop charging on remote signal.
  - The station responds to an external input signal to enable or disable charging via a potential free contact. The remote signal opens and closes the contact to disable and enable charging. This allows a timer or an external authority such as a grid operator to disable charging in order to reduce demand on the grid.
- Charging statistics available via EV Reports desktop tool.
- Other desktop configuration tools can be used to configure the charging station in addition to the configuration web pages.
- The three phase version of the station can be connected to a single phase supply.
- OCPP Compatibility:
  - Can be connected to any OCPP 1.6+ compliant network management system.
  - Can be connected to any OCPP 1.6+ compliant load management system.
  - Compatible with all OCPP smart charging commands.
- Certified compliant with ChargeHQ load management.
- Post mounted option.

EVOLVE SMART - TWIN SOCKET CHARGING STATION

The eVolve Smart is an advanced twin socket charging station with an aluminium and ABS plastic enclosure. The eVolve Smart comes in bollard (free standing) and wall mounted versions.

The station is fitted with two Type 2 sockets. Tethered cables are optional It has twin onboard Type B RCDs for protection against DC leakage. This is a legal requirement. The station can be connected to a local network via its Ethernet port or by a 4G modem to a mobile network.

The station is also available in a master/slave configuration suitable for clustered charging station installations where one station is used to command and control the other stations and act as a single communications gateway to the back end management and billing systems.

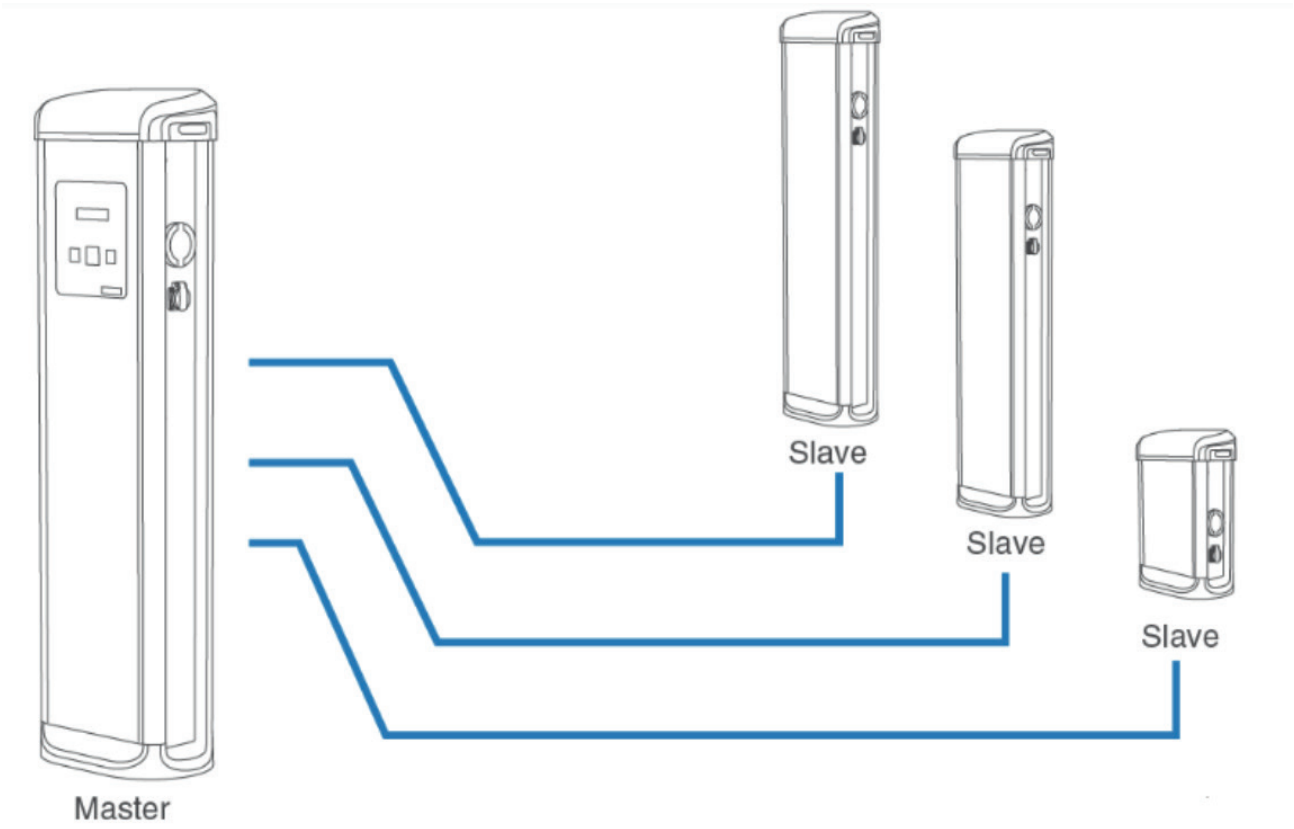
The eVolve is rated to 44 kW (three phase, 63 amps) and each socket is rated to 22 kW. One car charging gets 22 kW, two cars charging get 22 kW each. However, the eVolve can be dialed down to 22 kW (three phase, 32 amps) so that one car charging gets the full 22 kW and two cars charging get a max of 11 kW each. The station can be connected to a three phase 32 amp circuit when the station is dialled down to 22 kW.

The eVolve Smart is unique in that it can be configured for a single phase power supply. The station is rated to 14.7 kW when connected to a single phase 63 amp circuit. One car charging gets 7 kW, two cars charging get 7 kW each. The station can be reconfigured for three phase is the power supply is upgraded in the future

Features include:

- Rated to 44 kW, 22 kW per socket.
  - One car charging gets 22 kW, two cars charging get 22 kW each.
  - The eVolve can be dialed down to 22 kW, one car charging gets 22 kW, two cars charging get 11 kW each.
  - The eVolve can be connected to a single phase supply. One car charging gets 7 kW, two cars charging get 7 kW each.
- Factory fitted Type B RCDs for DC leakage protection.
- Easy to service. Front door opens like a fridge.
- Lockable. Supplied with a key.
- Factory fitted ethernet network connection.
- Optional 4G for sim cards.
- Can be connected to any OCPP 1.6+ compliant network management system.
- Can be connected to any OCPP 1.6+ compliant smart charging load management system.
- Compatible with all OCPP smart charging commands.
- LCD front panel and status indicator lights.
- Optional tethered cables.
- Optional credit card reader.
- Embedded 4g modem in the control board. Can be independently replaced.
- NMI R-46 (OIML R46/Mid Certified) compliant meter.
- Optional auto closing RCDs to reduce call outs.
- Optional lightning strike protection.
- Great user friendly web interface for configuration.

EVOLVE SMART – MASTER/SLAVE - CREDIT CARD OPTION



Master/Slave for load balancing

A Master Evolve bollard/wallbox can statically load balance up to 8 slave bollards/wallboxes (18 charging points) e.g. load balance a fixed 200 kW supply across 18 charging points rated to 22 kW each. The Master has the modem and the OCPP smarts. The slaves have a basic control board and are connected to the Master by fixed network cable.

Master/Slave Credit Card Option

The Master Bollard can be supplied with a factory fitted credit card/EFTPOS reader provided by Ingenico/Advam Australia. Drivers can select a charging port on any one of the 8 slave bollards from the screen on the master and swipe a credit card, debit card, NFC phone/watch etc to start a charging session. No smart phone app required. The Master bollard acts as a credit card payment kiosk for the slaves as well as providing two charging points.

There is no credit card option for the Master Wallbox. A Master bollard can be connected to wallbox slaves.

Features

- Integrated contactless payment system(Credit Card Payment System) provided by ADVAM Australia.
- A single modem in the Master unit can be used for remote connection and back-office system integration.
- The Master can operate up to 8 Slaves (max. 18 charging points including the Master) managing the load and user authentication.
- Comes fitted with either an 8 port or 12 port switch
- 8" daylight readable touchscreen to provide clear charging instructions and charging station operating status.
- One charging station serves two cars simultaneously
- Available in Single Phase (7kw) & Three Phase (22kw)
- The Master is fully OCPP compatible and otherwise has the same features as the Evolve Smart - https://www.chargestar.com.au/evolve-smart-bollard

Phone 1300 661 895 | www.chargestar.com.au | info@chargestar.com.au

PAYMENT SYSTEMS

BILLING AND ACCESS CONTROL

ACCESS CONTROL

Access control may be necessary to prevent unauthorised use of the charging stations.

Access control may be implemented via a mechanical lock, RFID card or smart phone app.

The charging station access control mechanism depends whether the charging stations are used by the public as well as employees.

Employees may be issued a corporate RFID card for free charging where as members of the public must use a smart phone app or credit card for paid charging.

FLEET MANAGEMENT FEATURES

Employee Reimbursement For Home Charging

Employees need to be reimbursed for home charging. A charging station is installed in the home of the employee and connected to the internet via the employee's home network or a 4G SIM card. An account is created for the employee by the employer. The employee authenticates himself/herself with an RFID card or smart phone app and charges the fleet car.

The consumption of electricity is initially billed via the employee's household electricity bill. Every month, the employee receives a detailed receipt for the charging processes carried out at home and the resulting reimbursement amount.

The employer also receives a monthly, automatically generated, detailed collective receipt for the charging processes recorded. This collective receipt enables the correct reimbursement of the home charging transactions by the employer's accounting or HR department.

Fuel card for network roaming

Fuel cards allow roaming across multiple networks that are compliant with OCPI or OICP (Hubject) and connected to a central clearing system. A driver could use the Casacharge or Chargebay smart phone applications to initiate charging sessions on the Chargefox network if Casacharge, Chargebay and Chargefox were all connected to Hubject.

This is a conceptionally similar process to the ATM clearing system which allows a Commonwealth Bank customer withdraw cash from a National Australia Bank ATM.

It is likely that connection to a central clearing system will be mandated by legislation to give customers greater greater choice of products, services and pricing packages from a range of different e-mobility providers.

PAID CHARGING

Billing systems for public charging stations operate on a pay as you go basis because the driver is unknown and payment needs to be enforced at the point of sale. Public charging stations are sometimes installed in visitor car parking bays in private car parks.

The payment options for public charging stations are :

- Tap and go terminals for credit/debit cards and NFC enabled smart phones.
- On-board the charging station or via a physically separate terminal.
- Smart Phone Apps or QR codes if payment terminals are not available.

Billing systems for public charging stations can be expensive because of the transactions fees levied by the billing company.

Payments for charging sessions are batched up and paid every 24 hours via Stripe directly to the merchant account of the charging station owner.

CHARGING STATION NETWORK MANAGEMENT SYSTEM

Charging station network management systems are used to provide administration, monitoring, management reporting, data extraction, access control and billing features. Some NMS platforms provide APIs for integration with building management and load management systems.

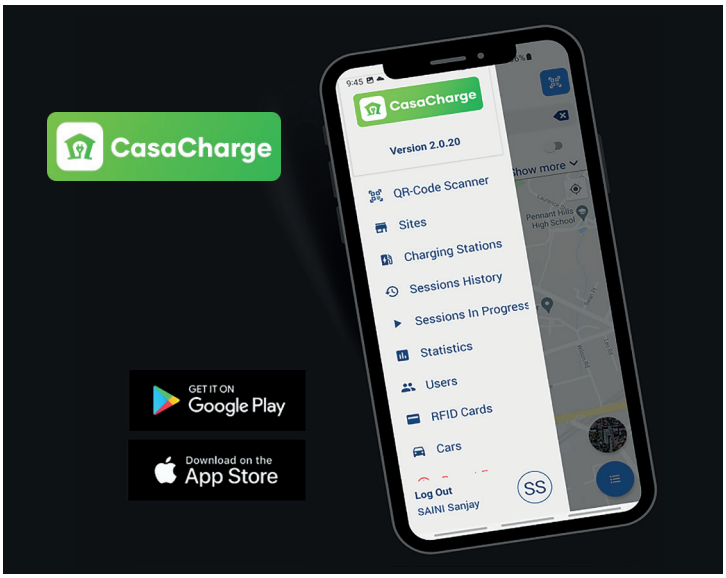
The charging station network management system manages and monitors the charging stations and all charging activity. Reports can be viewed on-line and downloaded in CSV or Excel file format.

Dashboards allow remote control, maintenance and firmware updates. An automated malfunction reporting system ensures that the charging station management company is informed of any outages.

Email alerts for charging station outages are generated automatically and error reports are collated.
ISO 27001 certified for data security

NET WORK MANAGEMENT FEATURES

- Web based network management and administration portal.
- Sub portals with granular permissions can be created for charging station providers.
- Dashboard overview with network map.
- Error reporting by network and by station.
- Error notification by email alerts and SMS.
- Station status and information including IP address, firmware version, OCPP Level, last heartbeat and map location.
- Remote configuration of stations including display settings for map and smart phone application, tariff per connector, max time allowed for charging, tariff per kWh or per minute.
- Remote retrieval of log files.
- Clustered stations. Multiple stations at a single location appear as one entry on the smart phone app.
- Time of day pricing. Set different tariffs for different times of the day
- Remote hard and soft resets of charging stations.
- Change availability status of station or an individual connector to operative/inoperative.
- Remote lock/unlock connector.
- Remote start/stop of charging sessions.
- Remote firmware updates.
- White labelling for own brand smart phone app. Separate platform instance for large customers
- Detailed downloadable charging session transaction history including start time, end time, kWh used, duration, driver id, meter reading, cost.
- Full integration with smart phone applications.
- **EV carbon credit capable.** EV carbon credits are produced by replacing vehicles that run on fossil fuels with electrified vehicles that have much lower emission levels and receive their electricity from renewable energy projects or fuels that have a lower carbon intensity. Baseline emissions are measured using the emissions produced by a conventional fossil fuel car with the same features. CO2 emissions for fossil fuel cars are calculated using distance travelled, fuel type and fuel consumption with distance travelled being the main determinant of fuel usage. The CO2 offset is calculated using kWh used as kWh is a function of distance travelled. Carbon credits are predicted to be worth between 3 cents per kWh and 15 cents per kWh. Charging station operators and fleet owners will be the main beneficiaries. The NMS provides the data needed to calculate the credits.
- **APIs** for integration with building management, load management and energy management systems.
- **Scheduling.** Disabling charging or changing the charging rate at certain times of the day to avoid peak grid power prices.
- **Load Balancing.** Cloud based load balancing where millisecond response times are not required.
- **Group tariffs** for different classes of customers.



CONEVA DYNAMIC LOAD MANAGEMENT SYSTEM

The Coneva Smartbox is an on-site appliance based dynamic load balancing system for electric vehicle charging stations. Smartbox can load manage mixed clusters of AC and DC charging stations that share the same power supply. On-site appliance based load balancing provides faster response times in comparison to cloud based load management. On-site load balancing continues to operate normally during network outages as there is no dependency on a remote system for load balancing.

Coneva Charging is developed by Coneva GmbH, a wholly owned subsidiary of SMA Solar Technology AG, a leading global specialist in photovoltaic system technology.

Coneva Smartbox is interoperable with the network management system. All non load management OCPP commands are passed between the charging stations and the NMS through Coneva

KEY FEATURES

- Dynamic load management of AC and DC stations in the same charging node or cluster.
- On-premises appliance. Can operate without an internet connection.
- Cross platform. The Smartbox appliance load balances any compliant OCPP 1.6/2.0 charging stations enabled for smart charging.
- Smartbox operates in tandem with OCPP compliant network management systems for network management and billing.
- Support for an unlimited number of charging stations.
- Can be configured to incorporate power sources such as solar PV, battery storage and wind power.
- Can be integrated with building management systems and other SCADA control systems.
- Supports orchestrates charging. Can respond to signals from the grid operator.

DYNAMIC LOAD MANAGEMENT

Coneva Charging is designed to reduce the charging rate of electric vehicle charging stations when there is insufficient power to allow charging at the full rated capacity. This can occur where the power supply used by the charging stations is shared with other devices in the building/site and power usage varies during the day or there is a power shortage.

Coneva charging avoids the need for costly grid upgrades needed to facilitate electric vehicle charging by ensuring peak demand never exceeds the capacity of the site grid connection.

Dynamic Load Management