char.gy

On-street residential electric vehicle charging solutions

Convenient electric vehicle charging for councils, parking providers and drivers.



www.char.gy



What is char.gy?

char.gy is the most convenient way for drivers to charge an electric vehicle on their street.

char.gy utilises existing street infrastructure, provides two electric vehicle charging solutions:

- A lamppost smart charge point that fits onto existing street furniture
- A satellite bollard smart charge point for greater placement flexibility

Simple-to-use, well-designed solutions, for **councils** and **parking providers** to accelerate the uptake of electric vehicles for their residents and drivers.





Benefits of char.gy

Easy installation

Fast installation into existing lampposts ensured a comprehensive charge network can be rolled out quickly.

A better way to charge

Charge more electric vehicles overnight without residents needing to move their vehicle once charged; they are ready to go by morning. Multiple vehicles can park and charge using existing bays, electricity infrastructure and street furniture.

Arrive and charge

Access charging immediately on your smartphone – no waiting for RFID cards or special cables to arrive in the post.

OLEV funding-compliant

Fully grant-compliant with Office for Low Emission Vehicles funding

Reusing infrastructure

Reuses existing street furniture and infrastructure billing through ELEXON's Balancing and Settlement framework.

Can handle multiple street wiring configurations

Dedicated cut-outs at 25A or 32A and shared 25A supplies.

Open and cost-effective system

Uses a standard charging cable, with no lock-in to subscriptions or hardware.

Standard Type 2 (BS EN 62196-2) sockets

Drivers charge with standard standard charging cables.

Fast charging

Up to 7.7kWh.

Pricing options to suit drivers

Pay-as-you-go option or get included kWhs with our monthly subscription plan.

Demand management

Various patented ways of managing supply bottlenecks and peak demand on the grid.

A fully-managed ecosystem

Provides the software, hardware and full servicing.



char.gy products

Lamppost solution

The char.gy lamppost solution is a specially designed compact charger that utilises existing street and car park furniture and infrastructure by attaching directly onto lampposts.



Bollard solution

The char.gy bollard solution is a stand-alone compact charger that allows for greater flexibility for location placements on streets or within car parks, whilst still able to make use of the existing supply infrastructure.





Certification

The char.gy hardware device is certified to meet the following standards:

- ELEXON certified BSCP520 Measured Central Management System
- Alternative Fuels Infrastructure Regulations 2017 compliant
- OLEV Workplace Charging Scheme Approved
- OLEV On-street residential charge point scheme compliant
- Environmental protection to IP55 as per IEC 60529:1989
- BS EN 61851 Parts 1 & 22
- EC Directive for Electromagnetic Compatibility 2004/108/EC
- EC Directive for Low Voltage Equipment 2006/95/EC
- BS EN 61851 Part 23 (when published)
- CE marked in accordance with EC Directive 93/465/EEC
- National Cyber Security Centre-certified





Ideal for drivers

char.gy provides electric vehicle drivers with the full, end-to-end charging experience, from locating a char.gy chargepoint to completing a charging session.

Benefits

A chargepoint on your doorstep — charge where you live, work or shop

Charge your vehicle immediately — register and charge straight away, no need to wait for an RFID or membership card

Type-2 charging cable compatible — supports open charging using the cable that comes with most electric vehicles

Streamlined web application — simple, step-by-step method of charging and paying

Flexible pricing structure — pricing plans to cover the needs of all drivers, from low-to-high usage
100% renewable energy — powered by Octopus Energy
24/7 customer care — help when it's needed by telephone, website or email







Software for drivers

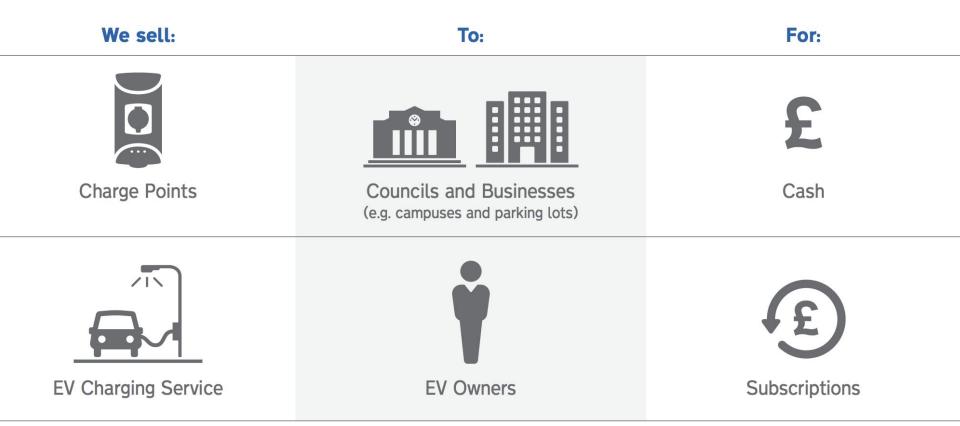
Drivers can use our user-friendly smartphone web application to:

- Find a nearby chargepoint and check availability and status
- Register and subscribe for an account
- Start a Pay As You Go session with Apple Pay or Google Pay
- Commence a charging session, integrated with the physical plug-in process
- Monitor progress of the charging session
- Get status change notifications
- Finish a charging session and release the charging cable
- Access support via the help desk
- Manage subscriptions and payment methods

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	Car is charging
•	You have used 0.19kWh in 6 minutes. We'll let you know when the battery is fu
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Plug in cable Your car will start charging automatically	 Protex Echar.gy char.gy Limited, 17 Blossom Street, Londo E1 6PL Registered in England and Wales. 1022217 Phone: 0800 086 9606 (from outside the UI +44 800 086 9606)
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you know when the battery is full.







Business model

Sponsored - Perfect for business owners who want to buy the hardware and sponsor their employees' electricity.

Shared reward - Perfect for parking providers who want to generate revenue from the infrastructure by sharing the risk and reward.

Zero - For business park and campus parking providers who want to provide the infrastructure to their parkers - who cover the costs.

Council concession - Councils who want to rapidly deploy infrastructure with OLEV's support and want to invest in future revenue streams.

Council zero - A complete package of hardware, installation and servicing that is zero cost to the council over 10 years with more modest revenue generation.

Pricing

char.gy is available to drivers through two pricing plans:

Pay as you go

- Pay for charging, as and when required
- No monthly fee or contract

Monthly subscriptions

- Two subscription models 'Casual' and 'Plus' to suit the amount of driving done
- Rolling monthly contracts with no lock in
- Inclusive monthly kWhs within each subscription
- No connection charges



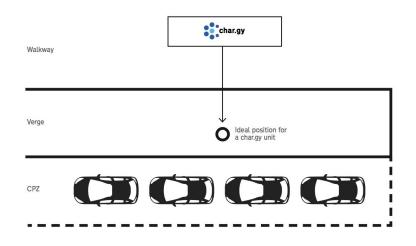
Determine location

For residential street deployments, there are two ways to allocate the location of a char.gy device – by a local resident requesting a charge point in their location, or based on a rollout plan to provide sufficient charging points in each controlled parking zone (CPZ).

To maximise parking opportunities without dedicating bays, a char.gy device will ideally be located on a lamppost next to four residential bays; maximising the possible parking bays reachable per charge point.

To avoid trip hazard liability the backpack char.gys should only be locate the lampposts at the road verge. If lampposts are not correctly positioned, our bollard version provides the ability to place a small, unobtrusive satellite post in the correct position.

Other considerations are earthing impedance, design, orientation and age of the lamppost and mobile coverage.



Residential Road



Securely built for public spaces

char.gy has been designed to integrate into public spaces through a number of features, including:

- Elegant and unobtrusive design blends into existing street furniture
- Low lumen-rated LEDs not too visually distracting for residential neighbourhoods
- Unique metal embossed URL on each chargepoint — can't be vandalised or removed
- **Physically secure** tamper-proof access
- **Structural integrity of lamppost** unaffected by the installation
- Charging cable locked in until the car owner releases it — can't be removed by anyone else

Other outdoor security features include:

- Full metal enclosure weatherproof and waterproof
- **Anti-graffiti paint** designed to minimise any alteration of appearance
- No cash payments on the device all payments are made through the web application
- PCI-compliant, secure payments optimising the security of card transactions
- **Remote monitoring** ability to track and monitor each device to maximise uptime.



Looking after your charge point

Lamppost integrity

We can provide lamppost-type specific reports to show that integrity is not affected by the attachment of the char.gy device.

Site survey

A brief initial site survey can determine the suitability of a requested site, taking into account the location, 3G cellular coverage, type and quality of lamppost, parking restrictions and earthing requirements.

Installation

Where necessary, groundworks to install an earthing mat or earthing rods may be arranged.

The install itself involves isolating the supply, attach the device and fitting an additional isolator and RCD inside the lamppost. The device is then configured, tested and ready for use. The whole visit usually takes around 90 minutes.

Ongoing maintenance

char.gy is responsible for maintaining the chargepoints. Visits are scheduled to proactively test and clean the char.gys to ensure safe and reliable operation.

Repairs

Defects that are identified during inspections, via remote monitoring or following reports from the public, are prioritised for rectification based on risk.

Customer care

Drivers can receive support through the char.gy support pages, our telephone helpline and customer portal.

Back Office software

char.gy supplies the back-office application and website and is continually enhancing the capabilities based on customer feedback to ensure the charging experience is seamless.

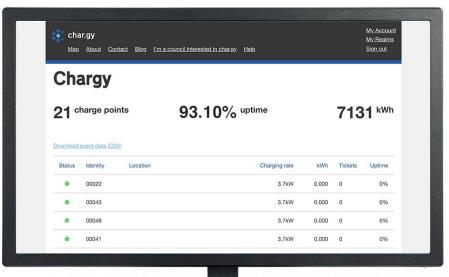


Software for councils and parking providers

char.gy has a dedicated back-office application for councils and parking providers to track and manage the workflow of each charging device.

Features of the char.gy back-office software include:

- Asset management of each individual chargepoint — location, connector type, number of sockets, hardware/firmware numbers
- **Usage reporting** availability, usage, trouble tickets and revenue generation
- Performance reporting KPI and SLA performance and OLEV schedule 6 reports
- User statistics demographics of chargepoint use (if users opt in)
- **Job management** request installations, see progress, monitor maintenance schedules







About char.gy

A third of UK households have no off-street parking — a figure that rises to more than 60% in cities and urban areas, and 78% in London.

char.gy was established in 2016, with the goal of providing a way for drivers, without access to off-street parking, to charge their electric vehicles on residential streets, public parking and workplace car parks.

char.gy has developed a compact charger that can be attached onto existing lampposts or as a stand-alone or satellite bollard solution.

Supporting the UK government's 'Road to Zero' strategy, char.gy is a supplier on the Transport for London — 'Go Ultra Low City Scheme' framework.



Richard Stobart, char.gy founder.

char.gy

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