energy saving trust

Making Mobility Accessible

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Agenda

- Introduction to accessibility and PAS 1899
- Background and guidance, for those new to the meetings
- Accessibility & Longer Vehicles
- Discussion

This webinar is being recorded

Afterwards the slide deck will be circulated

Future Webinars

Register via our website

Making EV chargepoints accessible - Energy Saving Trust

https://energysavingtrust.org.uk/event/making-ev-chargepoints-accessible-local-authorities/

Guest speakers

- Motability - Harry Fisher, Innovation Manager
- BSI
- AccessAble
- Disability Inclusion Groups

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Introduction

We need accessible charge points

Highlighting the need

Charging at public EVCPs should be accessible

Currently 1 in 5 people in the UK are disabled

By 2035 there will be

- 2.7 million disabled drivers in the UK
- up to half (1.4m) relying on public EVCPs

What do people want to see? *

Working Condition - People want to know before they arrive that the charge point is working

Physical Accessibility

- Size of Parking Bays
- Weight of cables
- Height of payment screen
- Step free access
- Dropped kerbs (where necessary)
- Accessible toilet availability
- Proximity to other facilities – walking / wheeling distance

(* Themes taken from PAS 1899)

What do people want to see?

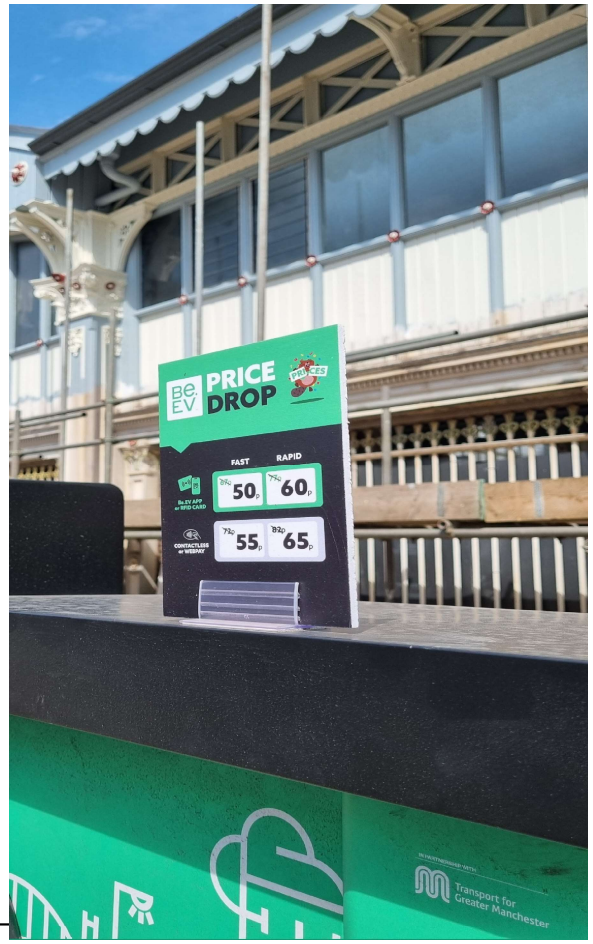
Availability Status - Real time information on whether a charge point is in use or available

Type of Charger – is it Rapid? Fast? Standard? Clear, concise, simple information

Location Details – Is it publicly available 24/7/365? Where exactly is it?

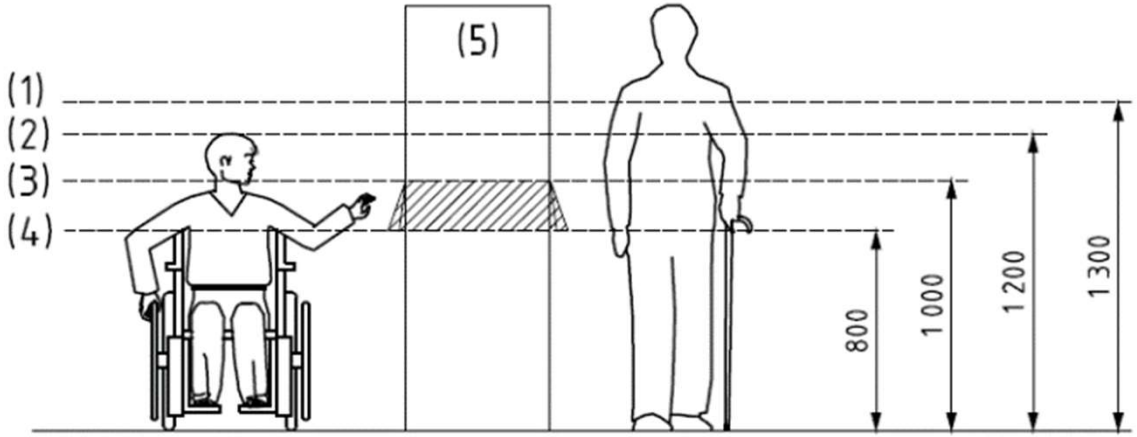
Payment Options – How to pay? Can you use contactless? Is it on a roaming scheme? Do you need an app?

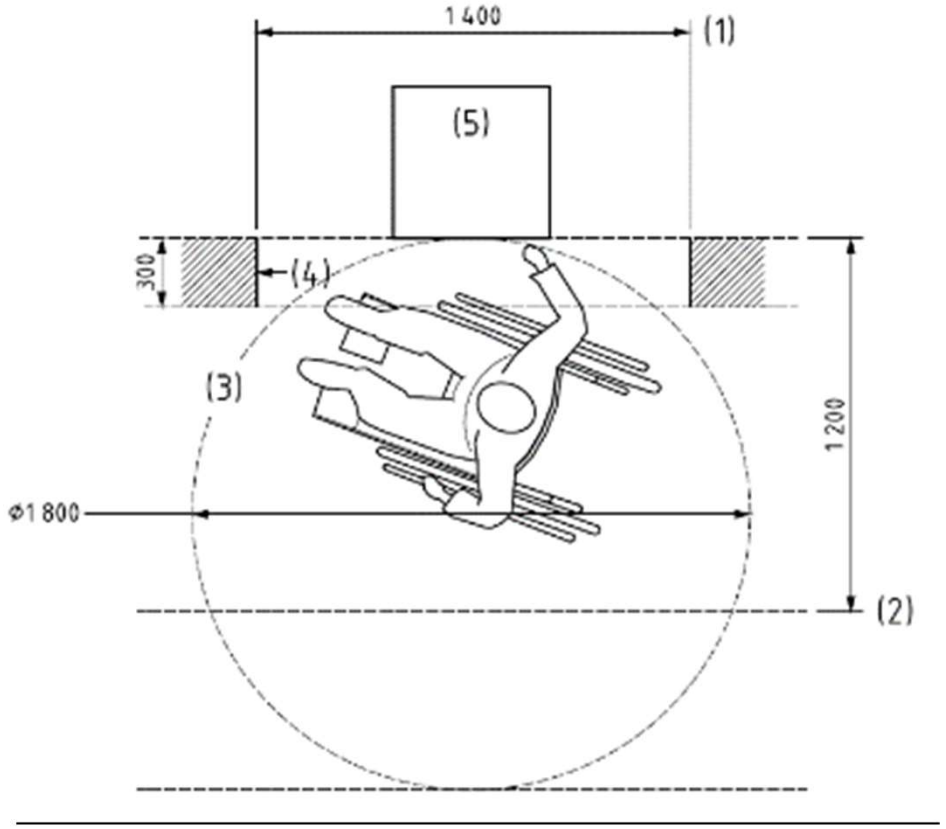
Pricing Information – Where is the price displayed? Is it visible before using the charge point?



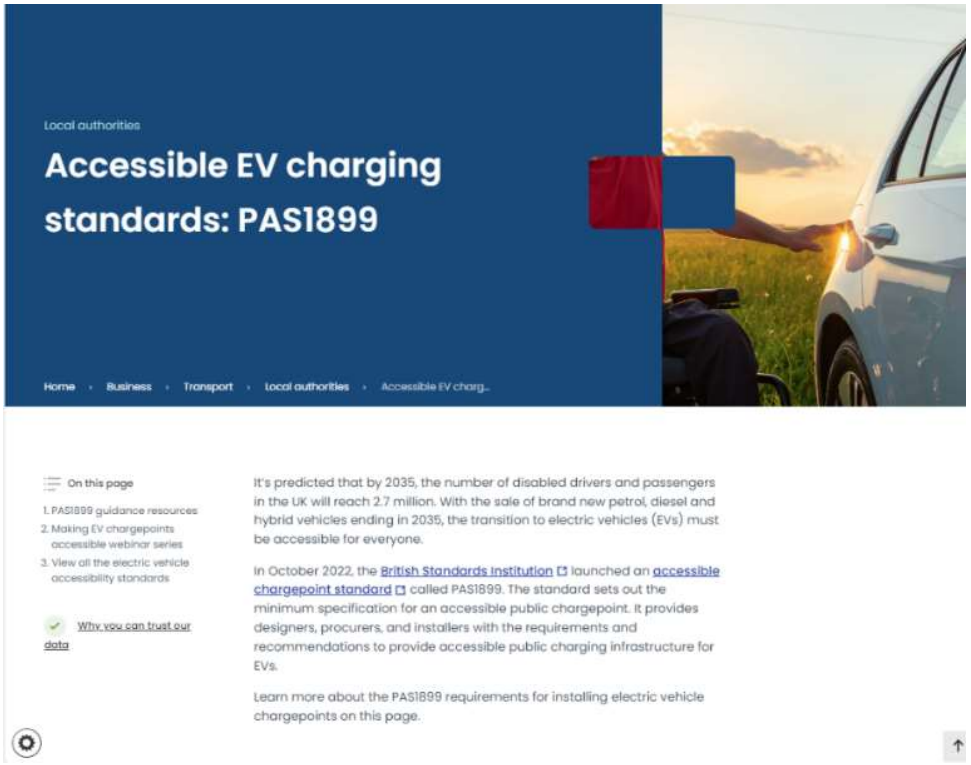
We need accessible charge points

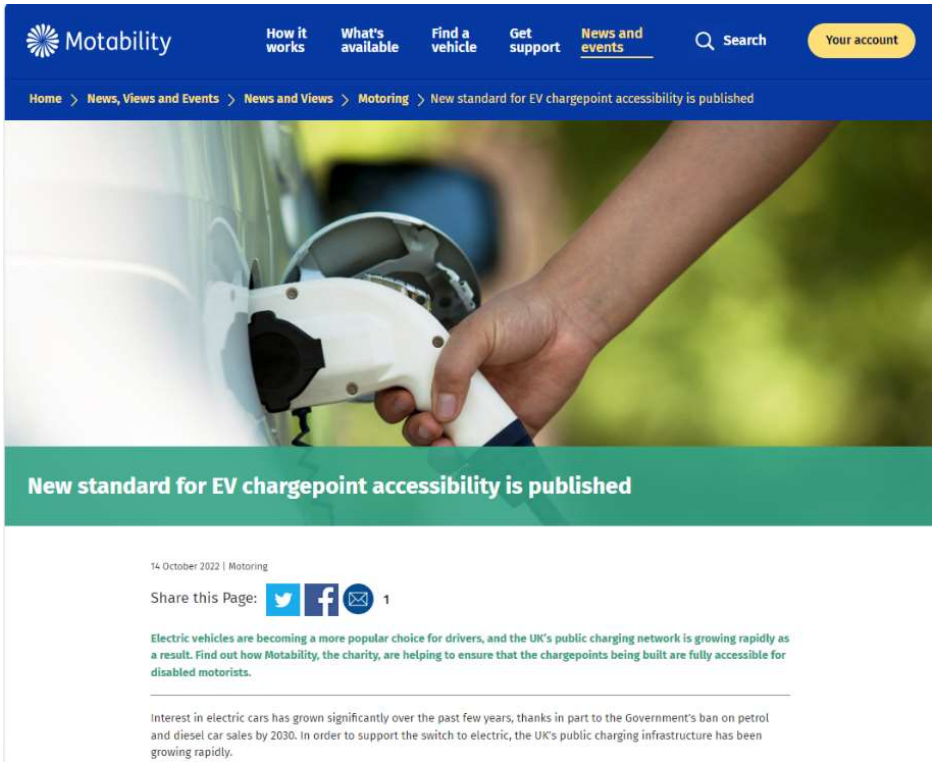
What will this look like?





Useful Pointers





https://energysavingtrust.org.uk/service/electric-vehicle-accessibility-for-disabled-drivers-and-passengers/

https://news.motability.co.uk/motoring/bsi-electric-charging-accessibility-standards/

PAS 1899:2022 EV accessible charging overview

Charge point design

Provide for a range of needs of users, including disabled people, to achieve inclusive design

Charge point placement and positioning

Must be easily viewed, reached, and operated from a seated or fully standing position

Streetscape and public realm

The built environment around a public EVCP: accessible to all users

Digital platforms and information provision

Using EVCPs is often via smartphone apps – these must be designed for accessibility

https://designability.org.uk/

PAS 1899:2022 Minimum standard

PAS1899 is a non-mandatory standard, with two levels: (1) minimum standard (2) best practice

Minimum Standard

Clause 5
Physical charge point design

- Height of components
- Cables
- Force to use
- Screen/ visual interface

(some charging units on the market do not comply with all parts of this element)

Clause 6
Charge point placement

- Position & orientation
- Smooth, stable ground
- No low-level obstacles
- Bollards/ impact barriers

(this element requires good joint working between the LA, CPO and residents)

Clause 7
Streetscape and public realm around the charge point

- Street furniture
- Level access/ dropped kerb
- Close to amenities/ venues
- Additional assistance

(this element requires good joint working between the LA, CPO and residents)

Clause 8
Digital platforms and information provision for charge points

- Remote digital platform
- Design, contents, composition
- Providing data & information

(some digital platforms & information provision on the market may not comply with all parts of this element)

PAS 1899:2022 Best practice

ANNEX A
Establishing an inclusive & safe environment around public charge points

- Lighting
- Security cameras
- Signage
- Positive feedbacks during charging

ANNEX B
Designated accessible parking bays (OFF-STREET)

Placement of charge points & surrounding environment
- Surface gradient
- Reach distance
- Space in front of EVCP/around EVs
- Wheel stops
- Distance to dropped kerb/level access
- Bays for larger EVs (WAVs, minibuses)

Establishing an inclusive environment
- Overhead weatherproofing
- Road markings
- Signage
- Distance to amenities/ venues

ANNEX C
Designated accessible parking bays (ON-STREET)

Placement of charge points & surrounding built environment
- Surface gradient
- Reach distance
- Space in front of EVCP/around EVs
- Distance to level access/ dropped kerb

Establishing an inclusive environment
- Road markings
- Distance to amenities/ venues

Charging vans and longer vehicles

Layout and vehicle flow

To date, the majority of electric vehicle (EV) charging has been focussed on cars rather than vans or longer vehicles.

The layout of charging stations generally mirrors car parks rather than conventional fuel-filling stations.

This reflects the need to remain stationary for longer periods of time to charge the vehicle. This also assumes that the driver or operator does not need to be present, unlike filling an internal combustion engine (ICE) vehicle with petrol or diesel.

Large vehicle charging: trailers & vans

The number of EV vans and longer vehicles is growing. At present there is very little provision for such vehicles.

Most fleet vehicles will charge at depots where EV chargers and bays are readily available.

But for everyone else, provision for en-route and destination charging needs to be considered when building out EV infrastructure.

Private vehicles with caravans or trailers will also need places to charge.

Layout for mid-sized larger/ longer vehicles or those with trailers

Bays, chargepoints and associated infrastructure need to be designed and suited to larger vans, longer vehicles, or those with trailers.

They will also need to allow for variation over the location on the vehicle of the charging sockets.

Larger vehicles in the heavy goods vehicle (HGV) class are likely to have specially designed charging bays. This leaves a gap in the market for charging longer mid-sized vehicles or those with trailers.

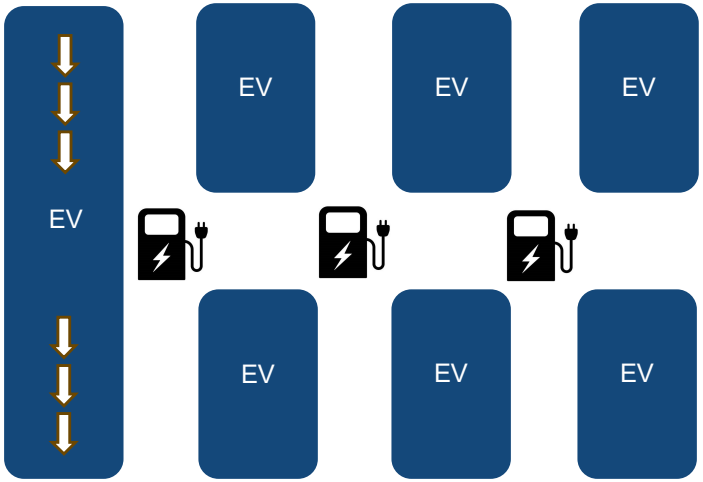
Alternative layouts

At present there are very few EV charging bays that can accommodate longer vehicles outside of private depots.

Additionally, there are only a few drive-through charging examples that currently exist within the UK.

Alternative layouts

Adapting existing layouts to create longer bays is a quick win option that can easily be adopted.



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Thank you

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