

SCHEDULE 12: CHARGE POINT INSTALLATION STANDARDS

1. Charging Equipment – Common Requirements

All equipment will need to conform to the specifications within the [EV Charging Infrastructure – Welsh National Standards](#) (see **Schedule 19**).

The design and installation of charging equipment shall permit compliance with the requirements and guidance of BS 8300- 1.

Charging equipment shall be CE marked and a copy of the EC declaration of conformity provided to the purchasing authority in accordance with EC Directive 768/2008/EC.

Charging equipment shall be compliant with BS EN 61851 Part 1.

Mode 1 or Mode 2 charging shall not be compliant with this specification.

Charging equipment shall utilise tethered cables (BS EN 61851:1 Case C connection).

This specification requires three vehicle connectors to be associated with a single unit (Type 2, CHAdeMO and CCS).

For AC charging, equipment:

- a. shall be compliant with BS EN 61851 Part 22;
- b. shall use Mode 3 charging; and
- c. shall be fitted with one socket compliant with BS EN 62196 Part 2 Type 2 vehicle connection per outlet.

For DC charging, equipment:

- a. shall be compliant with BS EN 61851 Part 23;
- b. shall use Mode 4 charging;
- c. shall be fitted with:
 - i) one tethered cable with a CHAdeMO vehicle connector per outlet; and
 - ii) one tethered cable with a Combined Charging System (CCS) vehicle connector per outlet.

For charging equipment with embedded generation capability (V2G):

- a. Charging equipment with embedded generation capability of up to and including 16A per phase shall be compliant with ENA Engineering Recommendation G83.
- b. Charging equipment with embedded generation capability greater than 16A per phase shall be compliant with ENA Engineering Recommendation G59.

The EVCPO shall supply, install, test and commission EVCP units which meet the minimum requirements set out in this schedule. The EVCPO may subcontract elements of this work to an

approved third party, but this must be approved by Conwy County Borough Council (CCBC) and recorded as part of the Stage Gate 1 report.

Each charge point unit shall:

- a. cater for over 90% of the electric and plug-in hybrid cars and vans registered in the United Kingdom at the time of the EVCPO's tender; and
- b. Rapid chargers must provide sufficient power output to provide at least an 80% battery charge within 45 minutes for an electric car or van meeting the criteria given in sub-clause a.

References to standards or regulations refer to the current edition of such standards or regulations at the time of the installation.

The EVCPO shall demonstrate compliance with the requirements of this Schedule.

2. Installation

Charging equipment shall be installed in accordance with BS EN 61851; BS 7671; the recommendations of the IET Code of Practice for Electric Vehicle Charging Equipment Installations (as amended); the manufacturer's instructions; and all other applicable standards.

In cases of apparent inconsistency in electrical installation requirements, BS 7671 shall take precedence and details of the inconsistency shall be notified to CCBC.

Installations on the public highway shall use a contractor registered through the Highways and Electrical Registration Scheme (HERS).

3. User Interface

Charging equipment status shall be indicated using lights, light emitting diodes (LEDs) or display, and from a user's perspective shall appear intuitive and aligned with Good Industry Practice.

Simple and clear information describing how to use the charge point unit shall be displayed on the unit and according to language requirements below and must include provisions for easy to follow diagrams for users that require a non-written alternative.

Details of any precautions necessary to ensure safe operation with Active Implantable Medical Devices shall be provided and must also be clearly displayed on the charging equipment.

Charging equipment shall clearly display instructions for payment and equipment operation.

All written information displayed on the charge point shall be in Welsh and English.

4. Back Office System

Software and Back Office Solutions are to be specified, discussed and agreed with CCBC before commencement of the contract.

5. Branding

Each charge point unit shall be clearly identified as being supported by CCBC via a direct paint application, a paint decal or self-adhesive sticker (here after referred to as 'label'). This will be achieved by including the CCBC logo and any appropriate CCBC's branding on the label at every site.

In addition to any appropriate CCBC branding, the charge point EVCPO may include their banding on the front face of the charger. There may also be a grant funding requirement for the inclusion of the Funder's logo (to be confirmed).

The label shall be placed on the front face of the charge point so that it is clearly visible to approaching motorists and to users of the charge point.

The design of label shall adhere to CCBC's visual identity guidelines, which are available from CCBC.

Sufficient space should be provided on the decal to accommodate both CCBC's and any other appropriate logos.

The label shall remain in place for the operational service life of the unit without degradation or discolouration.

The EVCPO shall develop a final design for the label to be provided and shall submit the design to CCBC for Approval before production of the required materials.

6. Product Acceptance Testing and Site Acceptance Testing

Each EVCP unit shall be subject to product acceptance testing (PAT) prior to installation and site acceptance testing (SAT) following installation by the EVCPO to demonstrate that the requirements of the Contract have been met.

The EVCPO shall prepare PAT and SAT specifications. The PAT and SAT specifications shall contain sufficient individual tests for the EVCPO to demonstrate to CCBC that each element of the charge point unit provided fulfils the requirements of the Contract. The PAT and SAT specifications shall be submitted to CCBC for Approval prior to the commencement of any testing.

The EVCPO shall give CCBC the opportunity to witness all testing. To enable CCBC to attend, the EVCPO shall provide CCBC with at least two weeks' notice of the dates and venues of each testing session.

7. Servicing and Maintenance

Charging equipment shall be supplied with a warranty on parts and installation, which aligns with the operations and maintenance requirements in **Schedule 15**. The EVCPO shall be responsible for all inspections, servicing, maintenance and replacements of Chargers, traffic bollards, signage and road markings and their associated costs.