



Office for
Low Emission
Vehicles

Grants to provide residential on-street chargepoints for plug-in electric vehicles

Guidance for Local Authorities

January 2018 – Version 1.1

The Office for Low Emission Vehicles (OLEV) is a cross Government, industry-endorsed team combining policy and funding streams to simplify policy development and delivery for ultra low emission vehicles. OLEV currently comprises people and funding from the Departments for Transport (DfT) and Business, Energy and Industrial Strategy (BEIS). Its core purpose is to support the early market for electric and other ultra low emission vehicles (ULEVs). OLEV is based in the Department for Transport and this document is published by The Department for Transport.

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On-Street Charging for Residents

Introduction

1. We have begun a period of change in the way we power our motor vehicles, a period which will provide hugely significant opportunities for the UK to grow its economy, and improve our environment. Our objective is that by 2050, almost every car and van in the UK will be a zero emission, with the UK at the forefront of their design, development and manufacture, making us one of the most attractive locations for zero emission vehicle-related inward investment in the world. Such vehicles will not only help to us achieve our carbon reduction targets, but tackle local air quality challenges and lower noise pollution too.
2. Local Authorities are invited to submit applications for the On-Street Residential Grant Scheme (referred to as “the Scheme” for the remainder of this document). The Scheme funding is aimed at increasing the availability of plug-in vehicle charging infrastructure for those who do not have access to off-street parking.
3. The Scheme gives Local Authorities access to grant funding which can be used to part fund the procurement and installation of on-street electric vehicle chargepoint infrastructure, to meet residential needs, in line with the minimum technical specifications.
4. In October 2016, OLEV announced funding for Local Authorities, which will be allocated to successful eligible applications on a ‘first-come, first-served’ basis and we encourage Local Authorities to take advantage of this funding while it is available to help prepare and support for the transition towards zero emission vehicles.

Background

5. Evidence indicates that most plug-in vehicle owners will wish to do the largest proportion of their charging at home. The availability of affordable and accessible domestic charging options is therefore key to increasing the uptake of plug in vehicle in the UK. To this end the Government currently offers the Electric Vehicle Homecharge scheme (EVHS), for residents to receive a grant towards the installation of domestic chargepoints at their homes. But to be eligible they must have dedicated off-street parking in the form of a garage or driveway. Many areas of the UK, including large parts of our cities, have residential areas where off-street parking is not an option, presenting a barrier to plug-in vehicle adoption.
6. In order to help their residents overcome this barrier, and prepare for the future, relevant Local Authorities are encouraged to apply for this Scheme, to get on the front-foot, and access funding to help with the costs of procurement and installation of on-street charging points for residential use.

Purpose of the On-Street Residential Scheme

7. The purpose of the Scheme is to increase the availability of on-street charging points in residential streets where off-street parking is not available, thereby ensuring that off-street parking is not a pre-requisite for realising the benefits of owning a plug-in electric vehicle.
8. The Scheme also has benefits for wider local communities; ever larger proportions of plug-in vehicles on our streets will support air quality improvements and lower noise pollution.

Funding and eligibility

How much funding is available?

9. The Office for Low Emission Vehicles (OLEV) has allocated **£1.5m of funding for 17/18 and £4.5m for 18/19 and 19/20 for on-street residential projects**. This funding is available to Local Authorities for eligible projects, on a first come, first-served basis.
10. The funding available is for 75% of the **capital costs** of procuring and installing the chargepoint and an associated dedicated parking bay (where applicable), in line with OLEV technical specifications (Annexes B and C).
11. The cost of charging infrastructure has come down significantly over the last few years, and the cost for many innovative new on-street solutions can be as low as £200-£500 per unit. The maximum amount OLEV will fund per chargepoint is £7,500, but OLEV anticipates costs to be much cheaper than this in most cases. Demonstrating value for money consideration in the application is crucial, and prices will be challenged to ensure that they are appropriate.
12. Project implementation must begin promptly after a Grant Offer Letter is awarded. Additional funding may be made available for subsequent financial years, but this is not guaranteed.
13. Applicants will have to demonstrate commitment to meeting on-street residential charging need, and will need to secure a minimum of 25% of capital funds via sources other than OLEV funding.
14. Responsibility for estimating and controlling all project costs lies entirely with the applicant authority or authorities. OLEV and the Energy Saving Trust (EST) will seek to support applicants to develop effective proposals, but reserves the right to request further information, and where necessary:
 - a. offer funding below that requested by the local authority or authorities, or
 - b. refuse to provide any funding where we consider the proposals entail unacceptable risk, offer poor value for money, or are viewed to be undeliverable in the proposed project timescales.

15. OLEV's agreed contribution will be the maximum that the project will receive. Grant payment will be made in arrears, upon completion of the project.
16. OLEV wants to encourage innovation in the area, so should Local Authorities wish to install commercially available charging products that fall outside of scope of the technical specifications, please contact the EST to discuss.
17. The scheme is primarily focused on the installation of chargepoints in on-street locations. However, OLEV recognises the potential pressures that may be faced by Local Authorities when allocating parking spaces for electric vehicles on residential streets. Therefore, OLEV is willing to consider applications for chargepoints situated in car parks owned by the Local Authority on a case-by-case basis where they meet the objectives of the scheme i.e. that the car park is suitably located in or near a residential area and provides an option for local residents looking to charge their car both during the day and overnight. Applications will be assessed against the application criteria set out below. Any Local Authorities planning on taking this approach should make contact with EST in the first instance. OLEV reserves the right to stop considering applications for chargepoints located in Local Authority owned car parks at any point before an application is approved if the objectives or effectiveness of the scheme is likely to be undermined in any way.
18. Applications will be considered on a monthly basis; any applications will be considered in the subsequent month following application, whilst funding remains. OLEV reserves the right to terminate or change the grant at any time but will aim to provide 4 weeks' notice.
19. Where applications exceed available budgets, OLEV reserves the right to prioritise applications from local authorities installing infrastructure in areas with particular air quality challenges, and Local Authorities who have not received Go Ultra Low, or other sources of funding for on-street residential infrastructure. We would also assess the relative merits of applications in terms of value for money, likelihood of the infrastructure meeting local needs, and project deliverability within the proposed timescales.

What costs are eligible for funding?

20. Capital funding will be provided for the installation of the chargepoints. The capital items that are eligible for claim are limited to:
 - The purchase cost of charging unit
 - The purchase cost of electrical components related to the chargepoint
 - The cost of civil engineering works related to the installation
 - Labour costs of the installation
 - Hardware costs of the installation

Where applicable:

- The capital costs of a parking bay and traffic orders (paint and signage)

What costs are excluded from funding?

21. The EST will provide initial advice and guidance to Local Authorities who wish to explore their application for funding. However we are not in a position to be able to assist with non-capital costs that may relate to the development of a project to install chargepoints. It is a matter for a Local Authority's own finance team to clarify which costs are capitalised.
22. Any funding must be for new chargepoint installations only – this funding is not to be used for the upgrade or maintenance of existing chargepoints.
23. This funding should not be used to support the installation of chargepoints for the primary use of electric vehicle car clubs, taxi fleets or other commercial undertakings. Nor is it intended to be connected to an individual's domestic electricity supply.

Who can apply?

24. The application process is open to relevant Local Authorities throughout the UK. For the purposes of the Scheme, the applicant authority must have the explicit support of the relevant highways authority that has responsibility for maintenance of the highway on the residential streets where chargepoints are to be located. This support must be obtained before any application is submitted.
25. Applications may be made by an allocated "lead" authority for a project that spans across multiple local authorities, as long as the relevant conditions can be met for each proposed chargepoint.
26. The funding will be allocated by OLEV to successful applicants on a first-come, first served basis, whilst funds remain. This process will be managed by the EST alongside OLEV.
27. Whilst we welcome bidders to take part in all OLEV schemes, we will require any applicant Local Authorities who have received specific other funding for on-street residential chargepoints, for example through Go Ultra Low Scheme, to demonstrate that any additional funding requested is appropriate and there would be no mixing of GUL and on-street grant funds. Relevant Local Authorities should contact EST in the first instance.
28. It is anticipated that LA applications will vary in size, but would not amount to greater than £100K of OLEV funding, per project. Any applications of more than this will be considered on a case by case basis, and LAs are encouraged to get in contact with EST in the first instance.

Application criteria

In order for an application and an installation to qualify, the following criteria must be met:

Criteria	Description
<p>The chargepoints will be located in a residential area / areas</p>	<p>The Scheme is intended to meet the needs of local residents and therefore the chargepoints must be located in a residential area. This could be demonstrated by providing maps indicating the relevant use classes¹ of the surrounding buildings.</p> <p>We appreciate that some areas may include a mixture of residential and commercial buildings. In these cases Local Authorities must be satisfied that the chargepoints will be used primarily to meet the needs of local residents.</p>
<p>The proposed location(s) lack(s) off-street parking</p>	<p>The Scheme is intended to meet the needs of those residents who are unable to charge at home due to a lack of off street parking. Therefore Local Authorities will need to demonstrate that this is not an option for the residents where the chargepoints are to be located. This could be done through provision of photographs or maps.</p>
<p>The location(s) will meet current or anticipated future demand</p>	<p>The Scheme is intended to support Local Authorities in meeting the current and anticipated needs of residents. Therefore Local Authorities should establish that such needs exist or are anticipated, and could be met through the proposed charging infrastructure. This could involve having received multiple requests for charging infrastructure from local residents wishing to purchase plug-in vehicles, or strategic plans to promote EV ownership in a particular area. It is for applicant authorities to confirm to OLEV their rationale and that they are content they have sufficient rationale to warrant the proposed infrastructure.</p> <p>Once an OLEV grant award has been accepted by the applicant authority, the sites of the proposed chargepoints must not change without permission from OLEV.</p>
<p>The chargepoints will be accessible to local residents</p>	<p>The Scheme is intended to provide reliable access to charging for local residents near their home. The Local Authority should be satisfied that their plans will aim to ensure local residents will be able to access the chargepoints. Whilst it is not a requirement of the scheme, this may be via resident parking schemes or permits, to ensure that local residents are assured</p>

¹ In England these are defined as use classes C2 or C3 (or their equivalent) under The Town and Country Planning (Use Classes) Order 1987.

	<p>that they will be able to charge on a regular basis. Chargepoints should be available for use on a 24/7 basis.</p> <p>Arranging a dedicated bay is not a requirement of the grant, but we would strongly encourage Local Authorities to consider it, especially in locations where residents who own a plug-in vehicle may have problems accessing the point due to parking congestion.</p> <p>Chargepoints must be added to the National Chargepoint Registry (NCR) which is an open resource listing publically accessible chargepoints in the UK, designed for use by website and smartphone app developers as well as Sat Nav manufacturers. The relevant field on the NCR must also be populated to inform users when the chargepoint is restricted to residents, or subject to parking restrictions, such as “residents only” parking zones or time limits.</p>
<p>The chargepoints will adhere to OLEV’s Technical Specifications</p>	<p>The Local Authority must have installed a chargepoint capable of at least charging those vehicles with a Type 2 connection and meets at least the minimum required technical specifications in Annex A.</p> <p>Where chargepoints are specifically restricted for residential use only, the Local Authority should adhere to the appropriate minimum technical specifications for On-Street Residential (Restricted to Residential Use - Annex C).</p> <p>Where chargepoints are accessible to the public, for some or all of the time, the Local Authority should adhere to the appropriate technical specifications for On-Street Residential (Unrestricted access – Annex B).</p> <p>When installing standard ground or wall mounted chargepoints, double-headed chargepoints which are capable of charging two vehicles at once should be installed wherever possible in order to maximise value for money. For standard ground-mounted chargepoints, OLEV requires justification for funding a single header standard chargepoint (i.e. if there is only room for one vehicle to park, and other technologies are not appropriate/available).</p> <p>Based on policy intention and needs of their local areas as appropriate, Local Authorities should also consider whether Charging equipment shall be compatible with the Open Charge Point Protocol version 1.5 (OCPP 1.5).</p>

<p>Applications may be made for one or more chargepoints</p>	<p>As long as the conditions of funding are met, applications may be made for single chargepoints, or multiple chargepoints across multiple locations. However OLEV does not anticipate projects to request more than £100k in OLEV funding, and reserves the right to cap the amount that will be funded in any one project. This is to ensure that projects remain relatively uncomplex and deliverable within reasonable timescales.</p> <p>Once a project has been delivered through the scheme, OLEV will accept subsequent applications, subject to availability of funds. Should a local authority wish to apply for additional projects, before their initial project has been completed, they should contact the EST in the first instance.</p>
<p>The project will adhere to procurement and state aid rules & Value for Money considerations</p>	<p>Local Authorities must outline how their project will deliver value for money. Local Authorities are responsible for ensuring that their projects comply with their procurement rules and state aid rules.</p> <p>Procurement of any third party, should not involve any exclusivity arrangements for infrastructure provision in the wider Local Authority area.</p> <p>The EST can provide advice on engaging the market and procurement best practice.</p>
<p>The project will be delivered in reasonable timescales</p>	<p>Applications should be able to demonstrate that they have a sound strategy for delivery within the financial year of their application for their project. We anticipate that delivery can take up to 6 months from making an application to installing and commissioning the chargepoints. Local Authorities should consider when is the most appropriate time to submit an application so that funding can be awarded, the installation completed and commissioned and payment made by OLEV within the financial year that the application was made. This should be explained through the high-level project / programme plan giving timescales and output milestones as part of the application process (Annex A)</p> <p>Any project dependencies and their impact on deliverability should be clearly identified in the application.</p> <p>If you believe project delivery is anticipated to take longer than this, please provide rationale for this in your application as OLEV may be unable guarantee funding.</p>
<p>The local authority will</p>	<p>It is a condition of the funding that any chargepoint must be maintained in a serviceable condition and accessible for 3</p>

meet ongoing commitments

years from the date of installation, and that usage data is made available to OLEV directly from the chargepoints or chargepoint operator systems for the 3 years.

The minimum technical specifications includes a requirement that the chargepoint be capable of collecting such data.

Application Process and anticipated timetable

Step 1: Pre-application option appraisal

- In the first instance, a Local Authority should contact the Energy Saving Trust who can be contacted via the mailbox: onstreetchargepoints@est.org.uk
- Energy Saving Trust will be able to support Local Authorities in their preparation of an eligible and successful application by providing advice and guidance.
- Local Authorities are encouraged to make use of this guidance in order to consider available options on the market, to get the best value for money, and most suitable technologies for meeting on-street chargepoint needs in their area.

Step 2: Application

- To apply for grant funding from the scheme, and with the support of EST where needed, eligible Local Authorities should complete the application form in Annex A, having:
 - Considered the demand in the area
 - Identified eligible locations and sought quotes for eligible costs for project delivery, adhering to value for money principles
- For partnership applications, it will be for partner authorities to decide which authority will lead and submit the application.
- Applications should be submitted by the last working day of the month, to be considered for funding at the beginning of the subsequent month. Applicant Local Authorities will receive written feedback or Grant offer letter from OLEV.
- An electronic copy of the application is required to be sent to onstreetchargepoints@est.org.uk

STEP 3: Delivery phase and payment

- Local Authority installs the chargepoints in line with their own procurement rules and within a reasonable timeframe, as agreed in the Grant Offer letter.
- Grants will be paid by OLEV in arrears upon completion of the project. For the grant to be paid, Local Authorities must submit a grant claim providing details of the chargepoint that has been installed, with supporting invoice evidence such as photos and invoices, on demand.
- It is anticipated that LAs will receive payment (within approx. 25 working days), subject to confirmation that the conditions agreed in the grant offer have been met.

Questions and Answers

Q1. Local Authorities are short of funds and this grant only covers part of the capital costs. Are we expected to pay the remaining capital costs and ongoing running costs?

There are benefits for Local Authorities from installing these chargepoints, and we would expect authorities to source funding for the remaining capital costs and the ongoing running costs, either from your own budgets, or from elsewhere including from the private sector, and we would encourage you to explore a range of options.

Q2. We have no idea where to start, what advice is available for us when deciding what to install and where to procure it?

In the first instance, please liaise with the EST who will be able to provide guidance, best practice and technological options for chargepoint installations.

Q3. What happens if OLEV refuses an application for a residential on-street point project that we have submitted?

OLEV want to support Local Authorities with the deployment of on-street residential charging infrastructure. If Local Authorities follow the guidance provided in the application, then your application is likely to be approved, whilst funding remains. If however, we do decline or reduce the offer in your application we will explain the reasons for this decision, so you will have an opportunity to amend your application and re-apply if funding remains. If you disagree with our decision then you are also, of course, free to install a chargepoint using funding from other resources.

Q4. I want to move the chargepoints from the location submitted in my bid

Please contact the EST as soon as possible. Justification and explicit approval from OLEV would be needed in order for any grant funding to be paid. The new location would need to meet all of the relevant conditions of the grant, including that the chargepoint will be in a residential area without off-street parking.

Q5. I have completed my project but there is still demand in my local area

If a Local Authority has successfully completed a project, and can evidence that demand remains, they can reapply for a new project, whilst funding remains available.

Q6. If we decide to designate an “Electric Vehicles Only” parking bay, do we have to wait for the (often lengthy) traffic order to be concluded before we can claim money for the project?

Yes, if you wish to claim any of the capital costs for the traffic order, you must wait for it to be completed before making your final claim.

Q7. What records do we need to keep for audit purposes for the residential on-street scheme?

You must retain the following for a period of 6 years and make them available at any reasonable time for inspection by officials from OLEV or their representatives or by the Comptroller and Auditor General or his representatives:

- Evidence that a chargepoint was appropriately procured

- A record of expenditure funded partly or wholly by grant and all income generated by the project

Q8. How would you define “Pay As You Go” functionality?

Where the chargepoints are also accessible to the wider public (rather than just local residents) it is important that any plug-in vehicle driver can access any point without too much fuss. When deciding on how to achieve this you can assume that all users will have a debit or credit card and a mobile phone. Asking users to register at the time of the transaction is not a problem, but any such registration should not include any tie in to longer term membership fees or a membership scheme. The user should also not be limited to a maximum number of charges without joining a membership scheme.

Enquiries

If you have any questions about this guidance, including clarification on the information in this document, then please email EST on:
onstreetchargepoints@est.org.uk

Office for Low Emission Vehicles
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Annex A: Local Authority Application form

Local Authorities are encouraged to work with the Energy Saving Trust and contact them (on the email address below) if there are any queries as regards your application.

- This completed application form should be sent to: onstreetchargepoints@est.org.uk email.

Your reference:

Please insert any unique reference number you would like us to quote in correspondence relating to this project

<u>Part A: Applicant Information</u>	
Name of Local Authority	<i>If you are applying on behalf of multiple Local Authorities, please indicate which LAs are involved in the project, and which is the nominated "lead" authority</i>
Address	
Lead contact email and position	<i>Name and position of the official with day to day responsibility for delivering the proposed chargepoint installation(s)</i>
Lead contact phone number	

Part B: Eligibility questions

Are you the Local Authority with responsibility for the maintenance of the public highway / residential street where the proposed chargepoint is to be located?	
If NO, do you have proof of permission from the relevant Highway Authority responsible for the maintenance of the road where the chargepoint is to be located? Please give details.	

Part C: Proposed Chargepoint Installations

Postcode of proposed installation(s)	<i>Please include details on each installation, where multiple chargepoints are proposed.</i>
Location meets current / future demand	
<p>Have you satisfied yourself that there is current or likely future demand for an on-street residential chargepoint at this location?</p> <p>Please demonstrate the rationale for siting the chargepoint at this location. This may be demand from local residents who want to purchase an EV, or evidence of your strategic plans to promote EV ownership in a particular area to meet future demand.</p>	
The proposed location lacks adequate off-street parking	
<p>Are you satisfied that this is an area without suitable access to off-street parking?</p> <p>Please attach appropriate evidence, for each site, such as a photograph / map of the proposed location to this application demonstrating this.</p>	
Chargepoints will be located in a residential area	
<p>Is the installation sited in a residential area?</p> <p>Please attach appropriate evidence, such as a photograph / map indicating building use classes in the proposed location to this application demonstrating this.</p>	
<p>If NO to the question above, are you satisfied that this chargepoint is primarily intended to meet the needs of local residents?</p>	
Chargepoints will be accessible to local residents	

<p>Please outline any measures you will take to ensure that local residents will have access to the chargepoint(s).</p> <p>This may be residents in the wider Local Authority, and may include use of controlled parking zones, resident parking schemes, permits, or dedicated bays for residents for all / some of the time.</p>	
<p>Will the chargepoints be open to the wider public for some / all of the time?</p>	
<p>If YES, please confirm the chargepoint will have Pay As You Go (ad hoc access) functionality. Please provide details.</p> <p>Do you commit to adding the point to the National Chargepoint Registry, detailing its availability?</p>	

Part D: Provision of the Chargepoints and funding requested

<p>Please indicate the total funding that is being requested for this installation and a break-down of these costs.</p> <p>OLEV will pay a maximum of 75% of eligible capital costs up to limits identified in the guidance.</p> <p>Please indicate how you intend to meet the remaining 25%</p>	
<p>Please provide details of the chargepoint technology you propose to install, and its power rating in kilowatts.</p>	
<p>Is the proposed point a single or double headed chargepoint (capable of charging two EVs simultaneously)?</p> <p>If single, and a traditional ground-mounted unit is proposed, please provide additional</p>	

justification for this choice, as OLEV financial support may be reduced.	
Please confirm the proposed chargepoints meet the minimum technical specifications as required.	
Please confirm that you have, or will consider value for money in this project and confirm that any installations will be carried out in line with your procurement responsibilities and within state aid rules.	

Part E: Ongoing commitments:

Do you commit to make available usage data from this chargepoint to OLEV in the specified format for the 3 years from the chargepoint being commissioned?	
Do you commit to maintaining the point in a serviceable condition for a period of 3 years from it being commissioned?	

Part F: Delivery of project

Please provide high level project plan with key milestones and outputs, and a risk register, to demonstrate your ability to deliver the chargepoint installations (suggested template follows)	
If you believe project delivery is anticipated to take longer than the current financial year, please provide rationale for this as we may be unable guarantee funding	
Please identify any scheme dependencies and their impact on the project's deliverability	

Key Milestone Project Plan

Name of Applicant Local Authority:

Project Name:

Application Date:

Target Installation Date:

Proposed Milestone	Milestone Date	Owner
1. Project start		
2. Procurement start		
3. Procurement completed		
4. Installation start		
5. Installation completed		
6. Project completion evidence submitted		

Annex B: Minimum Technical Specifications: On-Street Residential Technical Specifications (Unrestricted)

1.0	GENERAL
	This document defines the specification for electric and plug-in hybrid electric road vehicle conductive charging equipment.
	References to standards or regulations are to the current edition of such standards or regulations at the time of the installation.
	In cases of apparent inconsistency in installation requirements, the IET Wiring Regulations (BS 7671) shall take precedence.
	Manufacturers/suppliers of the proposed charging equipment shall demonstrate compliance with this specification.
2.0	INSTALLATION
	This specification is for the charging equipment only and not the final installation. However, it is required that the final installation will be in accordance with the IET Wiring Regulations (BS 7671); the recommendations of the IET Code of Practice for Electric Vehicle Charging Equipment Installations (as amended); Electricity Safety, Quality and Continuity Regulations and all other applicable standards.
	Installations on the public highway shall use a contractor registered through the Highways and Electrical Registration Scheme (HERS).
	Charging Equipment shall be installed in accordance with BS EN 61851.
	The electrical supply of the final installation should allow the charging equipment to operate at full rated capacity. Where local supply constraints prevent operation at full rated capacity, the charging equipment shall be classified according to actual output capacity.
	The design of the charging equipment shall permit compliance with the requirements of BS 8300:2009+A1:2010.
3.0	CHARGING EQUIPMENT - COMMON REQUIREMENTS
	Charging equipment shall be CE marked in accordance with EC Directive 768/2008/EC.
	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 be compliant with:
	. BS EN 61851 Part 1
	. Electromagnetic Compatibility Regulations 2006
	. Electrical Equipment Safety Regulations 1994
	BS EN 62196 Mode 1 or Mode 2 charging shall not be compliant with this specification.
	Charging equipment shall utilise socket outlets (BS EN 61851:1 Case A2 or B2 connection) or tethered cables (BS EN 61851:1 Case C connection).

	Where multiple outlets are provided the charging equipment shall be classified according to the output power delivered at each outlet with all outlets operating simultaneously.
	Where multiple connectors are associated with a single outlet only one connector shall be active, and all other connectors shall be inactive, when the outlet is in use.
	For AC charging equipment:
	. AC charging equipment output power shall be measured or calculated at a nominal supply voltage of 230Vac single-phase or 400Vac three-phase.
	. AC charging equipment shall be compliant with BS EN 61851 Part 22
	. AC charging equipment shall use BS EN 62196 Mode 3 charging.
	. AC charging equipment socket outlets (where used) shall be BS EN 62196 Type 2.
	For DC charging equipment:
	. DC charging equipment shall be compliant with BS EN 61851 Part 23
	. DC charging equipment shall use BS EN 62196 Mode 4 charging
	For charging equipment with embedded generation capability (V2X):
	. Charging equipment with embedded generation capability of up to and including 16A per phase shall be compliant with ENA Engineering Recommendation G83.
	. Charging equipment with embedded generation capability greater than 16A per phase shall be compliant with ENA Engineering Recommendation G59.
3.1	CHARGING OUTLETS
	The following outlet configurations are permitted:
3.1.1	SLOW AC (less than 3.5kW)
	Charging equipment outlet shall be rated 230Vac \pm 10% single-phase.
	Charging equipment output shall be not greater than 3.5kW.
3.1.2	STANDARD AC (3.5kW to 7kW)
	Charging equipment outlet shall be rated 230Vac \pm 10% single-phase.
	Charging equipment output shall be greater than 3.5kW and not greater than 7kW.
3.1.3	FAST AC (7kW to 23kW)
	Charging equipment outlet shall be rated 230Vac \pm 10% single-phase or 400Vac \pm 10% three-phase.
	Charging equipment output shall be greater than 7kW and not greater than 23kW.
3.1.4	SEMI-RAPID AC (23kW to 43kW)
	Not permitted.
3.1.5	RAPID AC (43kW to 44kW)
	Not permitted.
3.1.6	FAST DC (10kW to 22kW)
	Charging equipment output shall be greater than 10kW and not greater than 22kW.

3.1.7	SEMI-RAPID DC (22kW to 50kW)
	Not permitted.
3.1.8	RAPID DC (50kW to 62.5kW)
	Not permitted.
3.1.9	ULTRA-RAPID DC (62.5kW to 400kW)
	Not permitted.
4.0	LOCATION - GENERAL
	Where installed in an outdoor location, the charging equipment shall meet the minimum IP ratings set out in BS EN 61851:1.

4.1	LOCATION – PUBLIC (UNRESTRICTED ACCESS)
	AC charging equipment shall be fitted with a BS EN 62196 Type 2 socket outlet.
	DC charging equipment shall provide vehicle connectors compatible with both the CHAdeMO and Combined Charging System 'Combo 2' (EN 62196-3) standards.
	Rapid charging equipment shall be supplied with both AC and DC outlets.
	Where supplied integral to DC charging equipment, fast or semi-rapid three-phase AC outlets (22kW or greater) shall be permitted.
5.0	USER INTERFACE - GENERAL
	Charging equipment status shall be indicated using lights, LEDs or display.
5.1	USER INTERFACE – PUBLIC (UNRESTRICTED ACCESS)
	Charging equipment shall be fitted with a payment/access control (as appropriate) mechanism.
	Charging equipment shall display instructions for payment/access (as appropriate) and equipment operation. Details of approach shall be provided.
	Charging equipment shall allow use on an ad hoc basis without entering into an ongoing contract or membership scheme with the operator concerned. Details of operation shall be provided.
6.0	DATA REQUIREMENTS
6.1	DATA REQUIREMENTS – PUBLIC (UNRESTRICTED ACCESS)
	Data communications to allow remote data collection shall be provided.
	A data acquisition system compatible with OLEV Chargepoint Usage Data Requirements (refer to factsheet in Appendix 1) shall be provided.
	Each outlet shall provide measurement of energy supplied, to be output to both display (where fitted) and data acquisition system compatible with OLEV Chargepoint Usage Data Requirements (refer to factsheet in Appendix 1). Where a MID approved meter is not used details of metering and accuracy shall be provided.

7.0	SERVICING & MAINTENANCE
	Charging equipment shall be supplied with an on-site three-year warranty on parts and installation.
	The charging point shall have a minimum operational life of 3 years to satisfy the requirements of the OLEV grant scheme.

Annex C: Minimum Technical Specifications: On-Street Residential Technical Specifications (Access Restricted to Residential Use)

1.0	GENERAL
	This document defines the specification for electric and plug-in hybrid electric road vehicle conductive charging equipment.
	References to standards or regulations are to the current edition of such standards or regulations at the time of the installation.
	In cases of apparent inconsistency in installation requirements, the IET Wiring Regulations (BS 7671) shall take precedence.
	Manufacturers/suppliers of the proposed charging equipment shall demonstrate compliance with this specification.
2.0	INSTALLATION
	This specification is for the charging equipment only and not the final installation. However, it is required that the final installation will be in accordance with the IET Wiring Regulations (BS 7671); the recommendations of the IET Code of Practice for Electric Vehicle Charging Equipment Installations (as amended); Electricity Safety, Quality and Continuity Regulations and all other applicable standards.
	Installations on the public highway shall use a contractor registered through the Highways and Electrical Registration Scheme (HERS).
	Charging Equipment shall be installed in accordance with BS EN 61851.
	The electrical supply of the final installation should allow the charging equipment to operate at full rated capacity. Where local supply constraints prevent operation at full rated capacity, the charging equipment shall be classified according to actual output capacity.
	The design of the charging equipment shall permit compliance with the requirements of BS 8300:2009+A1:2010.
3.0	CHARGING EQUIPMENT - COMMON REQUIREMENTS
	Charging equipment shall be CE marked in accordance with EC Directive 768/2008/EC.
	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 be compliant with:
	. BS EN 61851 Part 1
	. Electromagnetic Compatibility Regulations 2006
	. Electrical Equipment Safety Regulations 1994
	BS EN 62196 Mode 1 or Mode 2 charging shall not be compliant with this specification.

	Charging equipment shall utilise socket outlets (BS EN 61851:1 Case A2 or B2 connection) or tethered cables (BS EN 61851:1 Case C connection).
	Where multiple outlets are provided the charging equipment shall be classified according to the output power delivered at each outlet with all outlets operating simultaneously.
	Where multiple connectors are associated with a single outlet only one connector shall be active, and all other connectors shall be inactive, when the outlet is in use.
	For AC charging equipment:
	. AC charging equipment output power shall be measured or calculated at a nominal supply voltage of 230Vac single-phase or 400Vac three-phase.
	. AC charging equipment shall be compliant with BS EN 61851 Part 22
	. AC charging equipment shall use BS EN 62196 Mode 3 charging.
	. AC charging equipment socket outlets (where used) shall be BS EN 62196 Type 2.
	For DC charging equipment:
	. DC charging equipment shall be compliant with BS EN 61851 Part 23
	. DC charging equipment shall use BS EN 62196 Mode 4 charging
	For charging equipment with embedded generation capability (V2X):
	. Charging equipment with embedded generation capability of up to and including 16A per phase shall be compliant with ENA Engineering Recommendation G83.
	. Charging equipment with embedded generation capability greater than 16A per phase shall be compliant with ENA Engineering Recommendation G59.
3.1	CHARGING OUTLETS
	The following outlet configurations are permitted:
3.1.1	SLOW AC (less than 3.5kW)
	Charging equipment outlet shall be rated 230Vac \pm 10% single-phase.
	Charging equipment output shall be not greater than 3.5kW.
3.1.2	STANDARD AC (3.5kW to 7kW)
	Charging equipment outlet shall be rated 230Vac \pm 10% single-phase.
	Charging equipment output shall be greater than 3.5kW and not greater than 7kW.
3.1.3	FAST AC (7kW to 23kW)
	Charging equipment outlet shall be rated 230Vac \pm 10% single-phase or 400Vac \pm 10% three-phase.
	Charging equipment output shall be greater than 7kW and not greater than 23kW.
3.1.4	SEMI-RAPID AC (23kW to 43kW)
	Not permitted.
3.1.5	RAPID AC (43kW to 44kW)
	Not permitted.

3.1.6	FAST DC (10kW to 22kW)
	Not permitted.
3.1.7	SEMI-RAPID DC (22kW to 50kW)
	Not permitted.
3.1.8	RAPID DC (50kW to 62.5kW)
	Not permitted.
3.1.9	ULTRA-RAPID DC (62.5kW to 400kW)
	Not permitted.
4.0	LOCATION - GENERAL
	Where installed in an outdoor location, the charging equipment shall meet the minimum IP ratings set out in BS EN 61851:1.

Annex D – Usage Data requirements

E.1 This Annex sets out the Office for Low Emission Vehicles' (OLEV's) Chargepoint Usage Data Requirements.

Data fields and definitions

E.2 Grant recipients are required to make appropriate arrangements with chargepoint operators to collect and submit data on each charging event under each of the following data headings:

- Chargepoint ID
- Plug in date and time
- Unplug date and time
- Charge start date and time
- Charge end date and time
- Total energy drawn (kWh)

E.3 The definition of each data field can be found in Table A

E.4 It is expected all data points will be recorded at > 95% accuracy. Note that OLEV will accept data supplied from units which record energy consumption at intervals of up to a maximum of 30 minutes.

E.5 Data should be reported to OLEV in an Excel file in the exact format set out in Annex 1

Process of providing data to OLEV

E.6 The grant requires that the data set is provided quarterly, directly to OLEV by email to chargepoint.grants@olev.gsi.gov.uk.

E.7 In order to support OLEV log and amalgamate the data efficiently:

- a. The subject header for emailed submissions must be in the following format: *“YYMMDD – On-Street CP usage data - Chargepoint operator name”*
- b. The excel file containing the data should be submitted using the following format: *“YYMMDD – On-Street CP usage data – Chargepoint operator name”*

E.8 Submission should be provided as follows:

- 1st April – data submitted for January-March
- 1st July – data submitted for April-June
- 1st October – data submitted for July-September
- 1st January - data submitted for October-December

E.9 Data should be provided to OLEV for 3 years, starting on the date the chargepoint became operational.

- E.10** In order for the usage data to be utilised, it is important that OLEV receives data in full on the relevant due dates. If the data is incomplete, OLEV is unable to identify trends, develop insights and evaluate policy. Therefore, OLEV expects chargepoint operators to arrange for the data to be submitted in the required format automatically, without requiring a person to access and draw down the data. This is to ensure that the data is reliably received without prompting.
- E.11** Should data be incomplete, or fail to be submitted as per the schedule above, OLEV reserves the right to require repayment of grant funding from the grant recipient.

Data field definitions

Table A	
Data field	Description
Identifier for chargepoint	Unique identifier for chargepoint. This should match the chargepoint ID used on all forms and claim forms, and be consistent for the life of the chargepoint.
Plug in date and time (dd/mm/yyyy) (00:00h)	The date and time that the vehicle was plugged in, in 24-hour clock format and using the UK (not US) date format, expressed to the nearest minute possible. OLEV will accept data supplied from units which record connection/disconnection at intervals of up to a maximum of 30minutes.
Unplug date and time (dd/mm/yyyy) (00:00h)	The date and time that the vehicle was unplugged, in 24-hour clock format and using the UK (not US) date format, expressed to the nearest minute possible. OLEV will accept data supplied from units which record connection/disconnection at intervals of up to a maximum of 30minutes.
Charge start (dd/mm/yyyy) (00:00h)	The date and time that the vehicle began to draw charge in 24-hour clock format and using the UK (not US) date format, expressed to the nearest minute possible. OLEV will accept data supplied from units which record energy transfer at intervals of up to a maximum of 30minutes.
Charge end (dd/mm/yyyy) (00:00h)	The date and time that the vehicle stopped drawing charge in 24-hour clock format and using the UK (not US) date format, expressed to the nearest minute possible. OLEV will

	accept data supplied from units which record energy transfer at intervals of up to a maximum of 30minutes.
Total energy drawn (0.00kWh)	The electrical energy transferred during the charging event, in kWh, rounded to two decimal places and with energy transferred from the charging point to the vehicle being positive and energy transferred from the vehicle to the charging point being negative. If this is not directly measurable and you wish to infer this from other parameters please contact OLEV to discuss exactly how you propose to estimate the energy transferred.

Appendix 1

Charging event	Chargepoint ID	Plug in Date	Plug in Time	Unplug Date	Unplug Time	Charge start Date	Charge start Time	Charge end Date	Charge end Time	Total kWh
20	WMP11418	03/03/2016	15:54	03/03/2016	20:05	03/03/2016	15:54	03/03/2016	16:46	2.83
21	...	...	...					...	...	...
22	...	...	...					...	...	...