Office for
Low Emission
Vehicles

Grant Scheme for the installation of plug-in vehicle chargepoints on the UK Government and wider public sector estate.

August 2013

Version 2.2

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), Business, Innovation and Skills (BIS), and Energy and Climate Change (DECC). The core purpose is to support the early market for electric and other ultra low emission vehicles (ULEVs). OLEV is based in DfT and this document is published by The Department for Transport.

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Office for Low Emission Vehicles
Department for Transport
Great Minster House
33 Horseferry Road
London SW1P 4DR
Telephone 0300 330 3000
Website www.gov.uk/government/organisations/office-for-low-emission-vehicles

General email enquiries olev.enquiries@olev.gsi.gov.uk

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1. Introduction

1.1 The Government has launched a grant scheme to help public sector bodies in the UK to install plug-in vehicle charging infrastructure on their estate. Ultra-low emission vehicles, including electric and plug-in hybrid vehicles (plug-in vehicles) are a key part of the UK Government's plans for a modern transport system that promotes economic growth while delivering on its climate change targets. They offer the potential to reduce emissions while still offering the mobility that people and organisations want and need. Helping to reduce carbon emissions, improve air quality and support the growth of the UK's economy.

1.2 The number of plug in vehicles on our roads is increasing and we expect the number to accelerate in the coming years. Manufacturers are bringing more plug-in vehicles to market with each year, expanding the choice of vehicles for the private or fleet buyer to purchase.

1.3 In June 2011, the Government's "Making the Connection" plug-in vehicle infrastructure strategy[1] set out our vision for the role out of chargepoints to meet the needs of this growing market. We want to ensure that the right infrastructure is in the right places so that consumers are confident that they will be able to complete the journeys that they need to.

1.4 The available evidence indicates that most plug-in vehicle owners will do the largest proportion of their charging at home. After home recharging, we want to see workplaces providing recharging opportunities, both for fleet vehicles and employees. This will be supported by a targeted amount of public infrastructure to allow people to make the journeys they want. To this end, the Secretary of State for Transport announced in February 2013, that the Coalition government will provide up to 75% towards the cost of installing new charge points for:

- people installing chargepoints in their home;
- local authorities installing rapid chargepoints to facilitate longer journeys, or providing on-street charging on request from residents who do not have access to off-street parking;
- train operators installing new charge points at railway stations; and
- public sector bodies to install workplace chargepoints on their estate.

[1] www.gov.uk/government/publications/making-the-connection-the-plug-in-vehicle-infrastructure-strategy

1.5 This document sets out the information that public sector bodies need in order to apply for the grant to install workplace chargepoints on their estate.

2. The Grant Scheme

2.1 This scheme gives eligible public sector bodies access to a grant fund, administered by the Office for Low Emission Vehicles (OLEV), which can be used to part fund the procurement and installation of chargepoints on their estate, in line with the technical specification attached at Annex A.

2.2 The fund has been set up to facilitate the increase in workplace charging points on the public sector estate to meet current or future demand from plug-in vehicles. It is expected that the infrastructure will be placed in car parks which can be accessed by fleet, employee or visitor vehicles where appropriate.

2.3 This scheme is not intended to provide general provision of chargepoints for the public. Allowing the public to access the chargepoints is welcome but they should not be the main target audience.

The benefits for public sector bodies

2.4 The shift to ultra low emission vehicles can provide a number of opportunities and benefits for public sector organisations. In particular, this scheme can help public sector bodies and their employees unlock the following opportunities to:

a. **Integrate plug-in vehicles into fleets**. The Energy Saving Trust have been working with twenty organisations to look at the opportunities for integrating plug-in vehicles into their fleets. The Plugged in Fleets Initiative (PiFi) shows that there is a real financial opportunity. The Government already provides the Plug-in Car and Van Grants to reduce the upfront cost of plug-in vehicles. When this is combined with lower running costs and favourable tax treatment, plug-in vehicles can help fleets to save money. And with more plug-in vehicles coming to the market, fleets have an ever growing choice of vehicles at different price points. The Government has announced that it will extend the PiFi programme until March 2014, to provide support to further fleets.[2]

b. **Demonstrate leadership**. Plug in vehicles and charging infrastructure can also provide an opportunity for public sector organisations to

[2] www.energysavingtrust.org.uk/Organisations/Transport/Products-and-services/Fleet-consultancy/Plugged-in-Fleets-Initiative

demonstrate their leadership on sustainability. Plug-in vehicles offer zero or significantly reduced emissions from the tailpipe, which can help an organisation reduce its carbon emissions and also help to improve local air quality. Quieter vehicles also mean less noise pollution from traffic. Prominent positioning of the points can send an important and valuable message to customers about environmental commitment and corporate responsibility.

c. **Prepare for the future.** The regulatory and technological landscape means that the rollout of electric vehicles across the UK is very a much a "when" not an "if". Uptake of vehicles is accelerating and there are several new models coming onto the market in 2013 and 2014. Charging infrastructure is something that more and more employees and visitors will want and expect from workplace car parks. We would therefore encourage public sector bodies to take advantage of this opportunity to prepare for this inevitable transition.

What is available

2.5 Grant funding is available for up to 75% of the capital expenditure incurred as a result of the purchase and installation of chargepoints on the public sector estate. This can include surveys at the point of procuring the infrastructure provided that these are capitalised. The eligible expenditure also includes:

- Cost of charging unit
- Capital costs of a parking bay (paint and signage)
- Electrical components
- Civil engineering works
- Labour costs (for installation)
- Hardware costs
- Capital costs of developing associated software systems

2.6 The technical specification at Annex A would allow for the installation of wall mounted chargepoints or floor mounted charging posts in work place car parks. We would encourage the applicants to consider installing double-header points that are capable of charging two vehicles wherever possible in order to maximise value for money for the taxpayer. If you include single header installations in your bid, you must include justification, such as there only being room for one vehicle to park.

2.7 The funding will be capped at £7,500 per installation. The available evidence suggests that this is sufficient in the majority of cases. If, however, a public sector body treats a series of installations at a number of sites as one project, the capital costs of the whole project can be submitted as one claim, of which the government would pay 75%. This will help to mitigate the risk of some installations costing considerably more than others because of specific local conditions.

2.8 We would like the chargepoints to be accessible by employees and visitors, where appropriate, and not restricted to fleet vehicles. We would also strongly encourage the public sector body to designate the parking bays “Electric Vehicles Only” to ensure that drivers who need to use the point are able to park close enough to be able to access it safely and easily.

Eligibility

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

- The application for a grant must come from a UK Government or wider public sector authority in the UK. Public authorities include Government Departments and their agencies, the armed forces, local government, National Health Service, schools and the emergency services. In considering eligibility, OLEV will use the Public Authority definition used in the Freedom of Information Act, Schedule 1 and the Public Sector classification used by ONS for UK national accounts.
- The public sector authority must have completed an application form and sent this to OLEV. A template for this application is attached at Annex B.
- The public sector authority must have installed a point that meets the required technical specification, attached at Annex A, and that has been competitively procured.
- Where a chargepoint is installed in a publicly accessible site it must be added to the National Chargepoint Registry (NCR). This is an open resource listing all publically accessible chargepoints in the UK, designed for use by website and smart phone app developers as well as Sat Nav manufacturers. If the chargepoint is in an area subject to parking restrictions, then this must be included on the relevant field on the NCR.
- If the chargepoint is located in a public access car park, the authority may consider whether to include some from of “Pay as You Go” functionality.
- Where a grant recipient is involved in commercial activities in competition with the private sector, it must provide OLEV with evidence of what steps it has taken to ensure that the grant funding it receives does not directly or indirectly benefit it in the conduct of these activities.

Ongoing Commitments

2.10 It is a condition of the funding that any chargepoint must be maintained in a serviceable condition and accessible for 3 years from installation, and that data on its usage be supplied to OLEV for the same 3 year period on a quarterly basis in a standard format (data requirements are outlined in

Annex E). The technical specification attached at Annex A includes a requirement that the chargepoint be capable of collecting such data.

2.11 For the grant to be paid, the public sector body must submit a claim along with supporting documentation to provide an update on progress, installations and to confirm that an open and competitive procurement process has been followed.

How to apply

2.12 We invite public sector bodies to submit evidenced bids to OLEV, for which an application form is provided at Annex B.

2.13 When preparing a bid you should include, as a minimum:

- Details of the charging infrastructure that you would like to install
- Your rationale for the placement of the point or points and how they will help to achieve your aims
- The anticipated costs
- The outcomes of any initial survey work that has been conducted
- Details of any partner organisations that you have identified and any matched funding that you have sourced
- An anticipated timescale

2.14 Outline bids should be submitted by 31 October 2013 for consideration by OLEV, using the application form attached as Annex B. Feedback will be provided on the bids during November and we will aim to agree the detailed costings and project plans by the end of December 2013.

2.15 There may be further invitations for bids depending on how much funding is remaining.

2.16 We would encourage, where appropriate, joined up applications at a public authority level (for example, Government Department or Agency, Local Authority, Police Force).

Value for Money

2.17 In assessing applications for funding, value for money will be a key consideration for OLEV. This will be achieved by determining that funding is allocated to those places where investment is likely to have the most significant impact on supporting the early market for plug-in vehicles. Applications need to set out how you predict the infrastructure will be used, by whom and why.

Queries

2.18 A process flow chart can be found at Annex C and a Q&A section at Annex D.

2.19 If you have further questions about the grant or the application process, please send an email to olev.enquiries@olev.gsi.gov.uk with the title "public sector chargepoint scheme".

Annex A - technical specification for workplace chargepoints

The minimum technical requirements[3] of the chargepoint and its installation are as follows[4]:

Reference	Clause
1.0	**INTRODUCTION**
1.1	This document defines the specification of electric and plug-in hybrid electric road vehicles conductive charging equipment for use in a workplace car park application.
1.2	Manufacturers/ suppliers of the proposed charging equipment shall demonstrate compliance with the specification as part of the project bid.
1.3	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 current edition of the IET Wiring Regulations (BS 7671), the IET Code of Practice (CoP) for Electric Vehicle Charging Equipment Installations, Electricity Safety, Quality and Continuity Regulations 2002 and all other applicable standards.
1.4	Clause not required.
2.0	**STANDARDS**
2.1	Charging equipment shall be compliant with:
2.1a	BS EN 61851 Parts 1 & 22
2.1b	EC Directive for Electromagnetic Compatibility 2004/108/EC
2.1c	EC Directive for Low Voltage Equipment 2006/95/EC
2.1d	Clause not used
2.2	Charging equipment shall be CE marked in accordance with EC Directive 93/465/EEC.
2.3	The charging point shall have a minimum operational life of 3 years to satisfy the requirements of the OLEV grant scheme.
3.0	**CHARGING MODES**
3.1	Mode 1 charging shall not be compliant with this specification.
3.2	Clause not required.
3.3	Charging equipment shall use Mode 2 or 3 charging.
3.4	Clause not required.
3.5	Clause not required.
3.6	Clause not required.

[3] Technical specification supplied by Ove Arup & Partners Ltd (www.arup.com) at request of OLEV.
[4] Note that some clauses are not required for this specification. These are stated as 'Clause not required'.

3.7	If required, Mode 4 charging shall be compliant with this specification where supplied integral to compliant Mode 2 or Mode 3 charging equipment.
4.0	**EQUIPMENT RATINGS**
4.1	Clause not required.
4.2	Charging equipment shall be rated 230Vac, single-phase or 400Vac, three-phase.
4.3	Clause not required.
4.4	Clause not required.
4.5	Charging equipment output shall be rated up to 22kW.
4.6	Clause not required.
4.7	Clause not required.
4.8	Clause not required.
4.9	Where dual outlets are provided the charging equipment shall be rated for both to operate at rated capacity simultaneously.
4.10	Where supplied integral to compliant AC charging equipment, DC charging equipment with output rated up to 22kw shall be permitted.
5.0	**CONNECTORS/ OUTLETS**
5.1	Clause not required.
5.2	Charging equipment shall utilise socket outlets (BS 61851:1 Case A2 or B2 connection) or tethered cables (BS 61851:1 Case C connection).
5.3	Clause not required.
5.4	Charging equipment socket outlet or cable vehicle connector shall be as selected by the end user.
5.5	Clause not required.
5.6	Clause not required.
5.7	Use of BS1363 socket outlets shall not be permitted.
6.0	**HUMAN MACHINE INTERFACE**
6.1	Key, or equivalent, access shall be as selected by the user.
6.2	Clause not required.
6.3	Clause not required.
6.4	Charging equipment status shall be indicated using lights, LEDs or display.
6.5	Clause not required.
7.0	**OTHER FEATURES**
7.1	Charging Equipment integral protective device required to comply with BS EN 61851 Mode 3 charging shall be Type A RCD.
7.2	Where installed in an outdoor location, the charging equipment shall meet the minimum IP ratings set out in BS EN 61851:1.
7.3	The design of the charging equipment shall permit compliance with the requirements of BS 8300: 2009 + A1:2010.
8.0	**ENERGY METER/ DATA ACQUISITION**
8.1	Clause not required.

8.2	Data acquisition compatible with OLEV Chargepoint Usage Data Requirements (refer to factsheet in Appendix 1) shall be provided.
8.3	Clause not required.
8.4	A MID-approved meter for each outlet with energy used output to display and output to data acquisition system shall be provided.
8.5	Clause not required.
8.6	Data communications to allow remote data collection shall be provided.
9.0	**DEFINITIONS**
9.1	For the purpose of this specification, workplace car park defines installation and use of charging equipment by vehicles associated with the workplace operating the EV charging equipment.

Annex B - Initial bid application template - public sector estate scheme

Application details

Project Name	
Name of public sector authority	
Project manager contact name/s	
Project manager contact job title/s	
Project manager contact email/s	
Project manager contact telephone/s	
Public authority address	
Partner 1 Name & Address	
Partner 2 Name & Address	
Partner 3 Name & Address	
Partner 4 Name & Address	
Partner 5 Name & Address	

Your Project

Please write a short summary of the content & objectives of your project.

Guide - 500 word maximum

Your planned infrastructure
Please use the space below to give details of the infrastructure that you are planning to install. You should include as a minimum: • The number and types of chargepoints (connector type(s), kilowattage etc.) you plan to install • A description of the locations. • Details of any preliminary feasibility assessments or survey work that has been conducted, including their outcomes.

Rationale

Please provide an explanation of how the project will help to achieve the objectives of this fund as set out in the guidance document, or any additional strategic aims that are unique to this project and how your rationale for placement of the infrastructure will help to achieve them.

Strategic Fit and Rationale
Guide – 500 word maximum

Funding

Please state how much funding the public sector authority and its partners will put in to the project broken down in to capital and resource funding, how much money is requested from OLEV (capital) and the total cost of the project. Please be aware of the funding limits (%) of eligible costs set out in the guidance.

	FY 13/14	FY 14/15	Total
OLEV funding request (capital) (£)			
Consortium funding (capital) (£)			
Consortium funding (resource) (£)			
Total project cost (£)			

Please also complete the accompanying funding template spreadsheet to provide further detail on the sources of funding.

Are you or any of your partners receiving funding from other Central Government or European Union sources that is being used as match funding for this project? If so, please provide details here.

Organisation	Additional funding arrangements	Conflicts of Interest

Value for Money

Please provide an explanation of how the project provides value for money.

Value for Money
Guide - 500 word maximum

Promoting use of the infrastructure

Please provide evidence of how you will maximise the benefits of the infrastructure once it is installed.

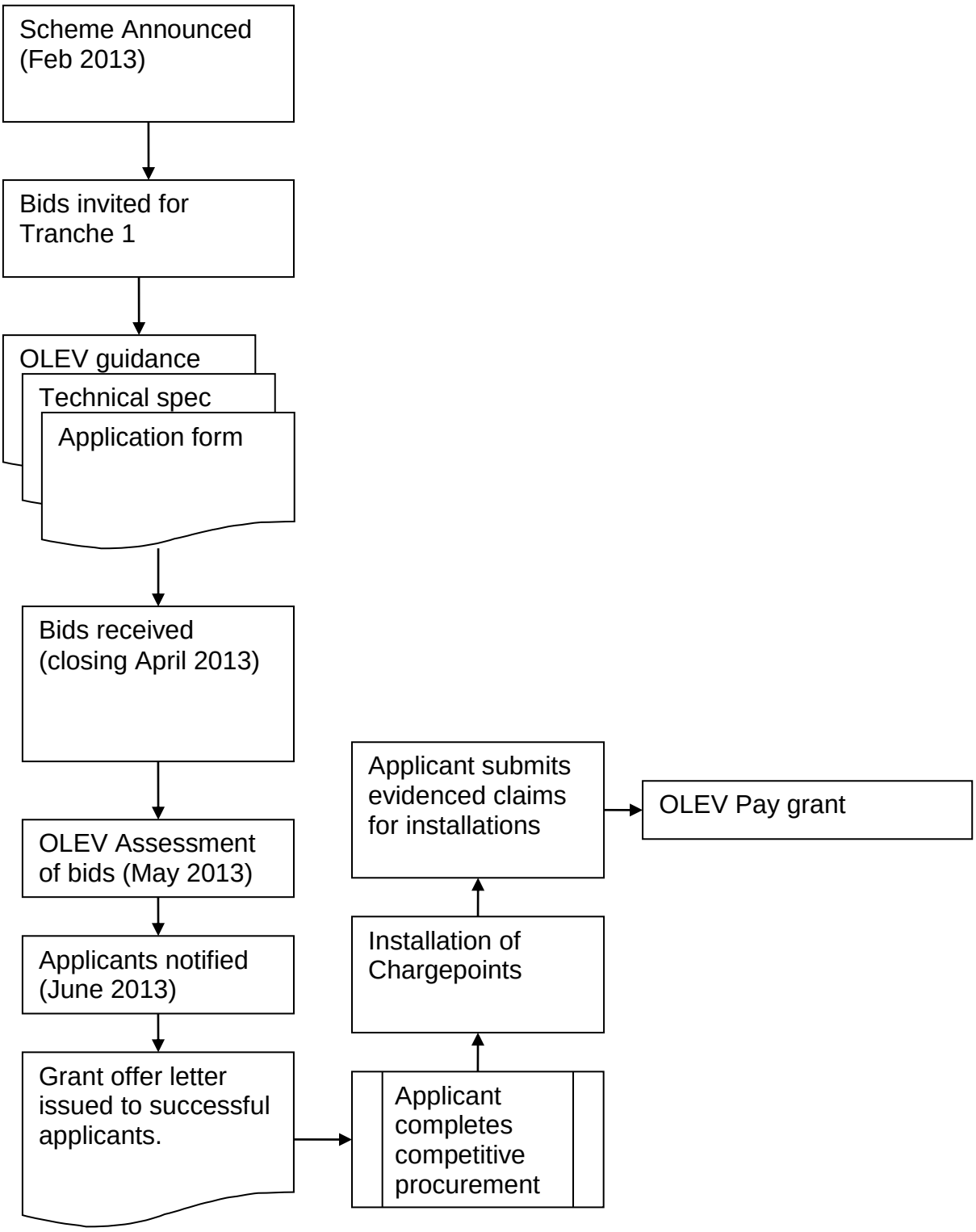
Promotion
Guide - 500 word maximum

Implementation

Please provide an explanation of how the project will be implemented.

Delivery plans
Guide - 500 word maximum

Annex C - Grant application process diagram



Annex D - Questions and Answers

Q1. Public sector bodies are short of funds and these grants only cover part of the capital costs, are we expected to pay the remaining capital costs and ongoing running costs?

There are benefits for public sector bodies to be had from installing these chargepoints, and so we would expect you to source funding for the remaining capital costs and the ongoing running costs, either from your own budgets or from elsewhere. There are several organisations in the UK market who may be willing to enter into partnership agreements with public sector bodies, and we would encourage you to explore all of the 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?

For the last few years OLEV has been managing the Plugged-In Places (PIP) learning programme. This has involved providing funding to 8 regional consortia to install charging infrastructure. We are hoping to publish outputs from the PIP programme, including lessons learned, in 2013.

There are also several chargepoint manufacturers and installers in the market in the United Kingdom who manufacture products that fit our technical specifications. In addition, there are several organisations who have already partnered with local authorities to manage their networks of charging posts. We would encourage you to explore all of the options available in order to get the best deal. If you have any specific queries, please contact us at olev.enquiries@olev.gsi.gov.uk.

Q3. Do we need to purchase plug in vehicles to access the infrastructure grant?

No. We would hope that the infrastructure could be of use to the organisations own fleet, however the grant is also about providing charging opportunities for employees or visitors.

Q4. What records do we need to keep for audit purposes?

You must retain the following for a period of 6 years in case OLEV requests to see it as part of an audit:

- Evidence that the charge point was competitively procured; and
- All invoices relating to money that you have claimed from OLEV, such as hardware and installation costs

Q5. How would do you define “Pay as You Go” functionality?

To ensure ease of use for the public 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.

Q6. How long will the funding be available?

The grant funding is finite and will be available until the end of March 2015 or until all funds are exhausted, whichever is sooner. We have invited outline bids for the second tranche of funding by 30 October 2013 and there may be further invitations for bids depending on how much funding is remaining.

Annex E - Usage data requirements for work place chargepoints

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

Data fields and definitions

2. Chargepoint suppliers are required to collect data on each charging event under each of the following data headings:

- Anonymised ID of user
- Chargepoint ID
- Start date and time
- End date and time
- Total energy drawn (kWh)
- Price

3. The definition of each of data field can be found in Table 2.1.

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

5. Data should be reported to OLEV in an excel file or equivalent, preferably with a filename in this format: *YYMMDD CP usage data - Chargepointsuppliername.* An example of the expected data file is below, with definitions for each data field detailed in Table 1.1 :

Charging event	User ID	CP ID	Start		End		Total kWh	Price
			Date	Time	Date	Time		
20	SL11429	WMP11418	03/03/2011	15:54	03/03/2011	16:46	2.83	£10/yr
21	…	…	…	…	…	…	…	…
22	…	…	…	…	…	…	…	…

Data return schedule

6. The schedule for data return to OLEV is as follows:

7. by end of Wednesday 1 May 2014 - first usage data batch

8. 1st (or next following working day) every 3 months thereafter for 3 years following installation unless otherwise instructed by OLEV.

9. Each data set should cover the preceding year quarter i.e. the data return due by 1 May 2014 should cover 1 January 2014 - 31 March 2014.

10. Data should be sent as per the above timetable by email to olev.enquiries@olev.gsi.gov.uk. Please ensure the subject header to your email is in the following format: 'DD/MM/YY - Public Sector CP Usage data - Organisation name'

Data field definitions

Table 2.1			
E.1	Data field	**E.2**	Description
E.3	Anonymised unique user ID	**E.4**	A unique identifier for the chargepoint user / membership card that enacts the charging event in question – RFID membership card identifier or equivalent. Roaming visitors to the scheme should be clearly distinguishable, if this is technically possible. Pay as you go events should be indicated as such.
E.5	Identifier for chargepoint	**E.6**	Unique identifier for chargepoint. This should match the chargepoint ID used on all forms and claim forms
E.7	Start date and time (dd/mm/yyyy) (00:00h)	**E.8**	The date and time that the charging event began, 24-hour clock, expressed to the nearest minute possible. OLEV will accept data supplied from units which record energy consumption at intervals of up to a maximum of 30minutes.
E.9	End date and time (dd/mm/yyyy) (00:00h)	**E.10**	The date and time that the charging event finished, 24-hour clock, expressed to the nearest minute possible.
E.11	Total energy drawn (0.00kWh)	**E.12**	The volume of electricity drawn during the charging event, in kWh, rounded to two decimal places. If this is not directly recordable and you wish to infer this from the charging time and power rating of the unit please contact OLEV to discuss exactly how you propose to estimate the kWh drawn.
E.13	Price paid by end user (£0.00)	**E.14**	The price paid by the end consumer for this charging event, pounds and pence.