



Office for
Low Emission
Vehicles

Electric Vehicle Homecharge Scheme Vehicle Application Form and Guidance Notes

Version 2.1

March 2020

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Department for Transport
Great Minster House
33 Horseferry Road
London SW1P 4DR
Telephone 0300 330 3000
General enquiries <https://forms.dft.gov.uk>
Website www.gov.uk/dft

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Background

The government's mission is to put the UK at the forefront of the design and manufacturing of zero emission vehicles

Evidence suggests that most plug-in vehicle owners carry out the largest proportion of their charging at home. The availability of accessible and affordable domestic charging options is therefore key to increasing the uptake of plug-in vehicles in the UK.

To help private plug-in vehicle owners offset some of the upfront cost of the purchase and installation of a dedicated domestic recharging unit, the government offers the Electric Vehicle Homecharge Scheme (EVHS). From 1 April 2020, customers who are the registered keeper, lessee or have primary user of an eligible electric vehicle can receive up to 75% (capped at £350) off the total capital costs of the chargepoint and associated installation costs.

This document sets out a process by which manufacturers can apply to add their vehicle to the list of EVHS eligible vehicles.

Application process:

Eligibility for EVHS

All ultra-low emission vehicles are eligible for the Electric Vehicle Homecharge Scheme, provided they meet one of the following set of criteria:

Cars:

Category 1 vehicles have CO2 emissions of less than 50g/km and can travel at least 112km (70 miles) without any emissions at all.

Category 2 vehicles have CO2 emissions of less than 50g/km and can travel at least 16km (10 miles) without any emissions at all.

Category 3 vehicles have CO2 emissions of 50 to 75g/km and can travel at least 32km (20 miles) without any emissions at all.

Taxis:

Category 1 Taxis that are purpose-built and have CO2 emissions of less than 50g/km and can travel at least 112km (70 miles) without any emissions at all.

Category 2 Taxis that are purpose-built and have CO2 emissions of less than 50g/km and can travel at least 16km – 111km (10-69 miles) without any emission at all.

Vans:

Vans that have CO2 emissions of less than 75g/km and can travel at least 16km (10 miles) without any emissions at all.

Motorcycles:

Vehicles of L3e-A1, L3e-A2, or L3e-A3 category that have CO2 emissions of 0g/km and have a range of at least 50km (31 miles) on a single charge.

Motorcycles which are already eligible for the Plug in Motorcycle Grant

Unlike for the other vehicle grant categories, motorcycles already eligible for the Plug-in Motorcycle Grant (PIMG) will not automatically be eligible for the EVHS.

Instead, evidence of compliance with the charging plug criteria will need to be supplied to OLEV at olev.enquiries@olev.gov.uk. The criteria and evidence required to show compliance are outlined below.

Motorcycles which are new to the grant schemes

Motorcycles that are new to the grant schemes (PIMG and EVHS) will be able to apply for both schemes by submitting the PIMG application form. The applicant must complete the section of the PIMG application form covering charging plug type and provide sufficient evidence. Therefore, there is no need to complete two application forms in this case. There is no application form for motorcycles in the EVHS guidance.

Criteria

1. For motorcycles to be eligible for the EVHS, the vehicle must be able to charge through the use of a BS EN 62196 compliant Type 1, Type 2, or CCS Combo 2 connection, that supports charging in mode 3, as described in IEC 61851-1.

Evidence required:

- Declaration from the vehicle manufacturer signed by someone able to sign on the company's behalf stating the vehicle is able to charge through the use of a BS EN 62196 compliant Type 1, Type 2, or CCS Combo 2 connection, that supports charging in mode 3, as described in IEC 61851-1.
2. The vehicle must be in category L3e-A1, L3e-A2, or L3e-A3
 3. The vehicle must also be eligible for the PIMG scheme, meeting all the requirements laid out in its guidance. See PIMG guidance for details of evidence required for the PIMG at: www.gov.uk/government/publications/plug-in-motorcycle-grant-eligibility

Motorcycles that are unable to charge using a BS EN 62196 compliant Type 1, Type 2 or CCS Combo 2 connection in mode 3 will not be eligible for the EVHS scheme.

A list of vehicles that are eligible for the EVHS can be found [here](#).

Most manufacturers establish the eligibility of their vehicles for the EVHS through applying for one of the plug-in grant schemes. Vehicles newly approved for the plug-in car, van, taxi grant are automatically eligible for EVHS. However, there are some ultra-low emission cars that are no longer eligible for one of the plug-in grant schemes. These are Category 2 or 3 ultra low emission cars, which have not been eligible for the plug-in car grant since October 2018, or Category 1 cars priced £50k or more.

For this reason, we have developed a streamlined process by which manufacturers of these car models can apply to be eligible for the EVHS only. This document sets out this process.

New variants of a vehicle that is already eligible for the grant are not automatically eligible. A variant of a vehicle that requires new type approval documentation will need to be approved separately. Manufacturers should apply for these new variants to be approved under the grant scheme. If you are unsure whether a new variant of a vehicle needs to be approved, please contact olev.enquiries@olev.gov.uk.

Making a vehicle application

Manufacturers wishing to apply for a vehicle to become eligible for the scheme should complete the application cover sheet and additional information form (Annex A & B), attach the required supporting evidence and submit to olev.enquiries@olev.gov.uk. Supporting evidence should be in English.

Detailed guidance on how to complete the application form is given below. Any questions regarding the application process should be sent to olev.enquiries@olev.gov.uk.

The assessment process

We will aim to process applications as quickly as possible. Applications will be processed as soon as they are received and we would hope to make a decision within two months. This depends on the complexity of the application and whether further technical information is required. The assessment process is as follows:

1. The applicant contacts OLEV for an EVHS application number.
2. Applicant submits completed application form and supporting evidence to olev.enquiries@olev.gov.uk for OLEV to review.
3. OLEV reviews application and determines whether the criteria are met:
 - a. If the vehicle passes, OLEV will add it to the online EVHS eligibility list and inform the applicant that their application has been accepted.
 - b. If the vehicle fails, OLEV will contact the applicant explaining why and either request additional evidence/information or conclude the application.

This process is summarised in the flow chart below. Any questions on the process should be sent to olev.enquiries@olev.gov.uk

Costs

Cases where independent technical expertise is needed to assess applications are likely to be rare. In such cases, however, there may be a cost to the applicant. Independent technical advice is most likely to be required for the following criteria:

- Battery or fuel cell degradation (3.6) and
- Crash safety (3.7) under route b) with crash testing for other internationally recognised consumer information programmes or regulatory standards that offer a comparable or better level of safety stringency as EC WVTA.

Review of decision

Applicants have a right to seek a review of the assessment panel's decision. Further detail would be provided to the applicant in the letter advising that the application had been unsuccessful.

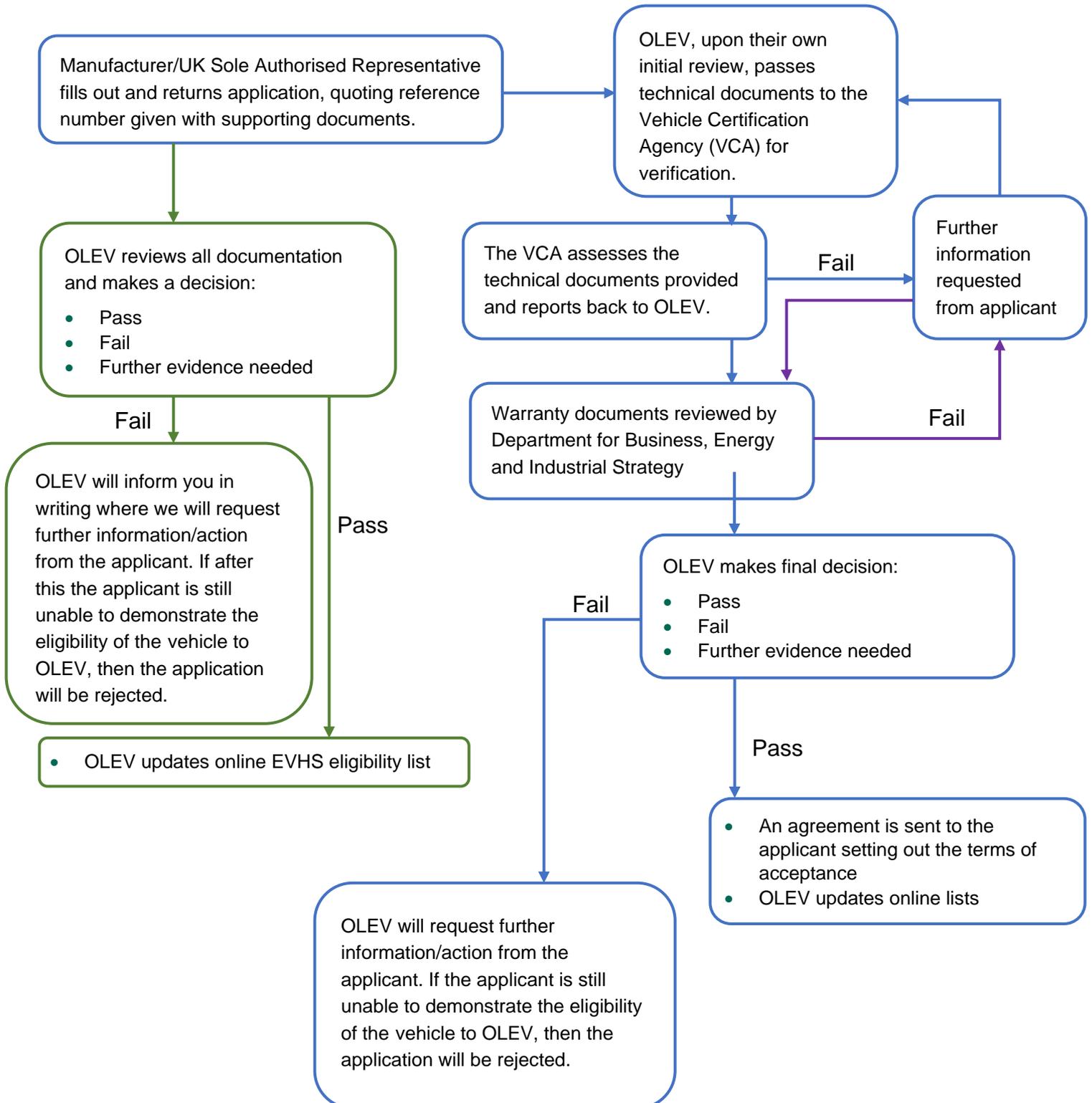
If significant further work is required to validate the submitted evidence, the applicant may be asked to meet those costs. OLEV will let the applicant know if this applies, in order to enable the applicant to decide whether they wish to meet the costs or to withdraw the application.

Applicants are encouraged to contact OLEV with any specific questions.

Flow chart to summarise the EVHS application and assessment process:

The streamlined EVHS application process is in **green** (This only applies for cars that fall under categories 2 or 3, or are priced above £50k)

The plug-in grant application process is in **blue**.



Guidance for completing the application form

The application form can be found at Annex A. This form acts as a cover sheet and must be accompanied with supporting evidence in English. Accepted evidence is outlined below. See also the checklist at Annex C.

If the requested evidence is inapplicable to the vehicle concerned, the applicant should state why the vehicle benefits from an exemption.

1. Applicant contact details

- 1.1 **Electric Vehicle Homecharge Scheme application number** - This is a unique identification number provided by OLEV in response to a request for the EVHS application form. It should be used in all correspondence. If an applicant is applying for more than one variant of the same vehicle to become eligible for the scheme, provided that the different variants are covered by the same type approval and warranty terms, a single reference number and agreement will be used to cover the different variants.
- 1.2 **Name of company applying** – Name of company submitting the application for assessment.
- 1.3 **Applicant address** – Applicant's postal address.
- 1.4 **Point of contact for application process** – Named individual with contact email, phone number and address.

2. Summary of vehicle details

- 2.1 **Vehicle model**
- 2.2 **Model variants seeking approval** – list all the variants of the model for which approval is being sought
- 2.3 **Energy storage capacity and chemistry (or principle of operation)** – detail the chemistry, in the case of a battery, or the principle of operation of any other powertrain energy storage device and its capacity (in kWh or other appropriate units)
- 2.4 **Internal combustion engine capacity (if applicable)** – For PHEVs state the engine nominal capacity (cm³) and fuel (e.g. petrol, diesel)
- 2.5 **Fuel cell capacity (if applicable)** – the on-board fuel storage capacity of a fuel cell vehicle (FCEV) (in kg, in the case of hydrogen, or an appropriate unit for any other fuel) and power of the fuel cell (kW)
- 2.6 **Maximum speed (mph)** – as will be publicly specified by the applicant (if maximum speed is limited please specify the limited maximum)
- 2.7 **Number of seating positions**
- 2.8 **Vehicle segment** – e.g. lower medium or supermini
- 2.9 **Recommended retail price** – If this has not been finalised at the point of application, please give an approximate value. The value stated should be inclusive of VAT, before deduction of the plug-in car grant.
- 2.10 **Charging plug type (if applicable)**

3. Meeting the eligibility criteria for EVHS only

If a manufacturer decides to provide a WVTA document as their sole piece of technical evidence they must present the information to OLEV in such a form that the type approval authority will not be necessary. If the manufacturer cannot present this information sufficiently as to dismiss reasonable doubt then our type approval authority will be contacted to provide assistance.

3.1 Vehicle type

The vehicle must be within the M1 category, as defined under EU Directive (EC) 2007/46/EC.

Accepted Evidence:

To show that the vehicle is homologated in the M1 category:

- A copy of the EC Whole Vehicle Type Approval certificate;
OR,
- A copy of the EC Small Series Type Approval certificate;
OR,
- A copy of the UK National Small Series Type Approval certificate;
OR,
- A copy of the UK Individual Vehicle Approval (IVA) certificate.

Multi-stage builds

For the purposes of the plug-in car grant any multi-stage built M1 vehicle will need to have been approved as a completed vehicle (that comprises both chassis and bodywork); the Accepted evidence listed above must cover the vehicle in its finished condition. An approval for a vehicle that has not been completed will not be accepted. This is to ensure vehicles driven off the forecourt when bought by the public meet the plug-in car grant criteria.

Manufacturers will need to consult the Vehicle Certification Agency (VCA) to obtain completed vehicle approval.

<http://www.dft.gov.uk/vca/vehicletype/type-approval-for-go.asp>

<http://www.dft.gov.uk/vca//vehicletype/ecwvta-framework-directive.asp>

To make an enquiry about applying for Type Approval, e-mail enquiries@vca.gov.uk or call +44 (0)117 952 4164

3.2 CO2 emissions

As explained in the background section, to qualify for the scheme, the car's tailpipe CO2 emissions in combination with its zero emission range (requirement 3.3) must be such that the vehicle falls into one of the following three categories:

Category 1

- CO2 emissions of less than 50g/km and a zero emission range of at least 70 miles

Category 2

- CO2 emissions of less than 50g/km and a zero emission range between 10 and 69 miles

Category 3

- CO2 emissions of 50-75g/km and a zero emission range of at least 20 miles

Accepted evidence

To verify the vehicle's tailpipe CO2 emissions:

- A copy of the EC Whole Vehicle Type Approval certificate;
OR,
- A copy of the Communication Form issued by the authority approving the vehicle to UN-ECE Regulation 101, showing CO2 emissions of 75g/km or less;
OR,
- A copy of the approval certificate that shows compliance with Regulation (EC) No 715/2007, showing CO2 emissions of 75g/km or less.

3.3 Zero emission range

As explained in requirement 3.2, the vehicle must have a zero emission range such that when considered together with its CO2 emissions it falls into one of the three categories specified above.

Accepted evidence:

To verify the vehicle's zero emission range:

- A copy of the EC Whole Vehicle Type Approval certificate;
OR,
- A copy of the Communication Form issued by the authority approving the vehicle to UN-ECE Regulation 101;
OR,
- The Type Approval Certificate (including Addendum) issued by the authority approving the vehicle to Regulation (EC) No 715/2007.

3.4 Warranty for the vehicle and battery or fuel cell and electric drive train

- The vehicle (excluding the battery or fuel cell and electric drive train¹) must be covered by a warranty for a minimum period of 3 years or 60,000 miles (96,500km), whichever comes sooner. The warranty must be in line with the directive providing guidance on certain aspects of the sale of consumer goods and associated guarantees in EU Directive 1999/44/EC.
- The battery or fuel cell and electric drive train must be covered by a warranty for a minimum period of 3 years, or 60,000 miles (96,500km), whichever comes sooner. The warranty must be in line with the directive providing guidance on certain aspects of the sale of consumer goods and associated guarantees in EU Directive 1999/44/EC.

In addition, the customer must be offered the option to extend the warranty by a minimum of 2 years. Applicants may choose to attach an additional cost to this warranty extension.

- Where the battery or fuel cell and broader electric drive train is leased to the customer, the leasing agreement must offer a level of support to the customer that is at least equivalent to the above mentioned warranty.

Accepted evidence

- A copy of the warranty document showing that the above requirements have been met. If the warranty document is not available at the point of application, the applicant may submit written confirmation that the vehicle will be offered with a warranty that meets the above specification. However, before any vehicles can be sold and supported under the scheme we will require a copy of the warranty document.

Further information on meeting the warranty criterion are included at Annex G.

3.5 Battery or fuel cell degradation

The applicant must demonstrate that the battery or fuel cell used to drive the vehicle's propulsion system has an acceptably low rate of degradation. As a guide to applicants, pending the evidence presented in each case, an acceptable level of degradation is defined as:

- For battery electric vehicles², the battery must maintain at least 80% of its initial or rated charge capacity for the initial 3 years, or 70% of initial or rated charge capacity for the initial 5 years.
- For fuel cell vehicles, the fuel stack must maintain at least 90% of its rated voltage output for the initial 5 years. Given the newness of this technology, we are prepared to work with manufacturers who supply alternative evidence which provides what the panel judges to be a reasonable level of reassurance to the consumer.

¹ Drive train' is used to mean the parts that send power from the engine to the wheels. These include the clutch, transmission (gear box), drive shafts, U-joints and differential.

² Including pure electric, plug in hybrid and range extender vehicles.

3.6 Crash safety

Vehicles must demonstrate that they meet the minimum safety requirements of the Plug-In Car Grant scheme.

There are two routes to demonstrate compliance:

- Homologation to category M1 through EC Whole Vehicle Type Approval (EC WVTA; not including EC Small Series or National Approval routes);
OR,
- Evidence that the car demonstrates a comparable or higher levels of safety as judged by international standards. This may be evidence of crash testing for internationally recognised consumer information programmes, such as Euro NCAP, but must cover front impact, side impact and pedestrian protection.

Accepted evidence:

- A copy of the EC Whole Vehicle Type Approval certificate for the model of the car that is being presented to the panel.
OR,
- Evidence submitted by the applicant to show the car has been crash tested to international standards and/or consumer information programmes where the outcome shows broadly comparable or higher levels of performance to those specified in EC Whole Vehicle Type Approval crash tests. This must include frontal, side and pedestrian impact. The evidence provided may be assessed by independent technical experts.

In making the decision on what are comparable safety outcomes, the assessment panel reserves the right to require the applicant to complete crash testing if it is considered that the data provided is insufficient, or the results inconclusive.

Multi-stage builds

For the purposes of the plug-in car grant any multi-stage built M1 vehicle will need to have been approved as a completed vehicle (e.g. comprising both chassis and bodywork): the accepted evidence listed above must cover the vehicle in its finished condition. An approval for a vehicle that has not been completed will not be accepted. This is to ensure vehicles driven off the forecourt when bought by the public meet the plug-in car grant criteria.

Manufacturers will need to consult the Vehicle Certification Agency (VCA) to obtain completed vehicle approval

- <http://www.dft.gov.uk/vca/vehicletype/type-approval-for-go.asp>
- <http://www.dft.gov.uk/vca//vehicletype/ecwvta-framework-directive.asp>

To make an enquiry about applying for Type Approval, e-mail enquiries@vca.gov.uk or call +44 (0)117 952 4164

3.7 Electrical safety

As a minimum, for a vehicle to be eligible for the scheme, it needs to show approval to UN ECE Regulation 100.01, which became mandatory for new vehicles in December 2012.

The 02 series of amendments to UN ECE Regulation 100 entered into force in July 2013 and will become mandatory for new vehicle types from 15th July 2016. This amendment adds requirements for the safety of the Rechargeable Energy Storage System (REESS), namely vibration, mechanical shock, fire resistance tests, short circuit protection. If the applicant is not able to provide a copy of the approval certificate to UN-ECE Regulation 100.02, evidence should be provided to show that the technical requirements of the 02 series of amendments have been met.

The applicant must also provide evidence of action taken to mitigate electrical safety risks not covered by Regulation 100. In particular, this must include a statement of what actions they will take to inform consumers about the safest way to charge and use their vehicle. Issues to cover should include:

- a. What voltage and amperage requirement will be needed to safely charge the EV or PHEV in domestic properties;
- b. What electrical safety advice will be provided to the purchaser;
- c. Whether charging the EV/PHEV in domestic properties will require the installation of additional safety equipment or separate circuits. In cases where additional safety equipment or separate electrical circuits are required, please tell us of the process by which you will ensure that the necessary equipment has been provided and/or circuits safely installed by the time of delivery of the car to the consumer;
- d. How the actions of the applicant will ensure compliance with the Low Voltage Directive 2006/95/EC.

The applicant could also demonstrate their commitment to consumer safety by submitting written confirmation that they will provide documentation with the vehicle that explains the safe operation and charging of the vehicle.

The following are examples of best practice for providing evidence:

- A one page leaflet for new customers outlining electrical safety issues.
- A comprehensive instruction manual with detailed instructions for owners on how to safely recharge and maintain their vehicle and risks to avoid.
- Requirement or recommendation that the consumer has a survey performed on his or her home wiring.
- Advice on how to install a dedicated home charging unit, with details of potential companies who can carry out the work.
- Evidence of dealership training to ensure dealers can correctly advise on electrical safety during the sales process.
- If relevant, indication of training so that technicians and mechanics can safely service the vehicle.

Where it is felt that the applicant has taken insufficient measures, the panel reserves the right to reject the application and/or stipulate that the applicant undertake certain additional measures before the vehicle can be deemed eligible.

Accepted Evidence:

- A copy of the EC Whole Vehicle Type Approval certificate; where compliance with UN-ECE Reg 100.02 is clearly shown;
OR,
- A copy of the type approval certificate to UN-ECE Reg 100.02;
OR,
- A copy of the type approval certificate to UN-ECE Reg 100.01, and evidence that technical requirements for 02 series of amendments are met.
AND,
- Descriptions of the action taken, and planned, by the applicant to identify and mitigate electrical safety risks not covered by Regulation 100. At a minimum the manufacturer should demonstrate points a)-d) above in whatever form is judged appropriate
AND,
- Blueprints / information to emergency services on how to correctly deal with an incident involving the relevant vehicle (i.e. where battery is located / what wires to cut).

3.8 [FCEV ONLY] Hydrogen safety

The vehicle must show approval to Regulation (EC) 79/2009 as amended by Regulation (EC) No. 406/2010.

The applicant must also demonstrate their commitment to consumer safety by submitting copies of the documentation which will be provided to the consumer to explain the safe operation and refuelling of the vehicle.

The following are examples of best practice for providing evidence:

- A one page leaflet for new customers outlining hydrogen safety issues;
- A comprehensive instruction manual with detailed instructions for owners on how to safely recharge and maintain their vehicle and risks to avoid;
- Information for firefighters and other first responders on hydrogen safety.

Accepted evidence:

- A copy of the type approval certificate to Regulation (EC) 79/2009
AND,
- Descriptions of the action taken, and planned, by the applicant to identify and mitigate hydrogen safety risks not covered by Regulation (EC) 79/2009.
AND,
Blueprints / information to emergency services on how to correctly deal with an incident involving the relevant vehicle (ie where fuel cell is and how it should be treated).

Blueprints / information to emergency services on how to correctly deal with an incident involving the relevant vehicle (ie where fuel cell is and how it should be treated).

EVHS Application cover sheet

- A.1 This form acts as a cover sheet and must be accompanied with supporting evidence in English. Accepted evidence is outlined in guidance notes. If some evidence is not applicable please state why the vehicle benefits from an exemption.
- A.2 This form can be requested in Word format for ease of completion.

1 Applicant Contact Details		
1.1	Electric vehicle homecharge scheme application reference number	
1.2	Name of company applying	
1.3	Registered company no.	
1.4	Registered company address	
1.5	Point of contact for application process (Name, email and phone number/s)	
1.6	Finance Director's name	

2 Vehicle Details	
2.1	Vehicle model
2.2	Model variants seeking approval
2.3a	Vehicle Technology
2.3b	Battery chemistry and capacity (kWh)
2.4	If applicable, internal combustion engine nominal capacity (cm ³)
2.5	If applicable, hydrogen fuel cell power (kW) and storage capacity (kg)
2.6	Maximum speed (mph and km/h)
2.7	Number of seating positions
2.8	Vehicle segment
2.9	Price (before grant is deducted)
2.10	Charging plug type (if applicable)

3 Meeting the eligibility criteria

Note: The evidence listed in this form is intended as a summary checklist only. The applicant must refer to the full guidelines to ensure that the evidence submitted fully complies with the scheme requirements.

3.1 Vehicle type

The vehicle must be within the M1 category, as defined under EU Directive (EC) 2007/46/EC.

Evidence provided:

- EC Whole Vehicle Type Approval certificate;
OR;
- EC Small Series Type Approval certificate;
OR;
- UK National Small Series Type Approval certificate;
OR;
- UK Individual Vehicle Approval (IVA) certificate.

Vehicle type approval number:

3.2 CO2 emissions (g/km)

Value: _____ g/km

Please provide:

- EC Whole Vehicle Type Approval certificate;
OR;
- UN-ECE Regulation 101 communication form,
OR,
- Regulation (EC) No 715/2007 approval certificate

<p>3.3 Vehicle all-electric range</p>	<p>Value: _____ miles</p> <p>Evidence provided:</p> <ul style="list-style-type: none"> <input type="checkbox"/> EC Whole Vehicle Type Approval certificate; <input type="checkbox"/> OR; <input type="checkbox"/> UN-ECE Regulation 101 communication form; <input type="checkbox"/> OR, <input type="checkbox"/> The Type Approval Certificate (including Addendum) approving the vehicle to Regulation (EC) No 715/2007.
<p>3.4 Vehicle warranty</p> <p>The <u>vehicle</u> (excluding the battery or fuel cell and electric drive train³) must be covered by a warranty for a minimum period of 3 years or 60,000 miles (96,500km), whichever comes sooner.</p>	<p>Vehicle warranty period _____ years</p> <p>Evidence provided:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A copy of the warranty document OR, <input type="checkbox"/> Written confirmation that the vehicle will be offered with a warranty that meets the specification. Note: Before any vehicles can be sold and supported under the scheme we will require a copy of the warranty document.
<p>3.4 Battery or fuel cell warranty</p> <p>The battery or fuel cell and electric drive train must be covered by a warranty for a minimum period of 3 years, or 60,000 miles (96,500km), whichever comes sooner. The warranty must be in line with the directive providing guidance on certain aspects of the sale of consumer goods and associated guarantees in EU Directive 1999/44/EC.</p> <p><i>In addition, the customer must be offered the option to extend the warranty by a minimum of 2 years. Applicants may choose to attach an additional cost to this warranty extension.</i></p>	<p>Battery or fuel cell warranty period _____ years</p> <p>Evidence provided:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A copy of the warranty document OR, <input type="checkbox"/> Written confirmation that the vehicle will be offered with a warranty that meets the specification. Note: Before any vehicles can be sold and supported under the scheme we will require a copy of the warranty document.

³ 'Drive train' is used to mean the parts that send power from the engine to the wheels. These include the clutch, transmission (gear box), drive shafts, U-joints and differential.

<p>3.5 Battery or fuel cell degradation</p> <p>Either a warranty or evidence to reasonable level of degradation is defined as</p> <p>For battery electric vehicles⁴, the battery must maintain at least 80% of its initial or rated charge capacity for the initial 3 years, or 70% of initial capacity for the initial 5 years.</p> <p>For fuel cell vehicles, the fuel stack must maintain at least 90% of its rated voltage output for the initial 5 years.</p>	<p>Evidence provided:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A copy of the warranty document explicitly stating acceptable levels of degradation <input type="checkbox"/> OR, <input type="checkbox"/> Data from tests undertaken on an appropriate sample of batteries or fuel cells that have been in service for a period of three or more years; <input type="checkbox"/> OR, <input type="checkbox"/> A written assurance from the applicant that their battery will offer a reasonable performance, with evidence provided in line with the guidance in Annex E.
<p>3.6 Crash safety</p>	<p>Evidence provided:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A copy of the EC Whole Vehicle Type Approval certificate for the model of the car that is being presented to the panel. <input type="checkbox"/> OR, <input type="checkbox"/> Evidence submitted by the applicant to show the car has been crash tested to comparable or higher levels of performance to those specified in EC Whole Vehicle Type Approval crash tests. See guidance for further details.

⁴ Including pure electric, plug In hybrid and range extender vehicles.

<p>3.7 Electrical safety</p>	<p>Evidence provided:</p> <ul style="list-style-type: none"> <input type="checkbox"/> EC Whole Vehicle Type Approval certificate provided that UN-ECE Reg 100.02 is listed; OR; <input type="checkbox"/> A copy of the type approval certificate to UN-ECE Reg 100.02; OR, <input type="checkbox"/> A copy of the type approval certificate to UN-ECE Reg 100.01 and evidence that technical requirements for 02 series of amendments are met. AND, <input type="checkbox"/> Descriptions of the action taken, and planned, by the applicant to identify and mitigate electrical safety risks not covered by Regulation 100. AND, <input type="checkbox"/> Information to emergency services on how to correctly deal with an incident involving the relevant vehicle.
<p>3.8 [FCEV ONLY] Hydrogen safety</p>	<p>Evidence provided:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A copy of the type approval certificate to Regulation (EC) 79/2009 <input type="checkbox"/> AND, <input type="checkbox"/> Descriptions of the action taken, and planned, by the applicant to identify and mitigate hydrogen safety risks not covered by Regulation (EC) 79/2009. <input type="checkbox"/> AND, <input type="checkbox"/> Information to emergency services on how to correctly deal with an incident involving the relevant vehicle.

_____ Signed _____ (Name)

_____ (Position) _____ Date

On behalf of the applicant, I am authorised to, and agree to follow, the processes and requirements of the plug-in car grant guidance notes.

Additional Information

A.3 This information is not considered by the assessment panel.

A	Site of vehicle production	
B	Anticipated UK supply volume	
	2020/21	
	2021/22	
	2022/23	
C	UK presence – facilities and support	
D	UK opportunities	
E	Associated companies	
F	Future applications	

Additional Information

- A.4 The Department for Business, Energy and Industrial Strategy and the Department for Transport will monitor the uptake of the PICG and PIVG to ensure best value is delivered for the ultra-low emission vehicle market and that consumer purchases will be properly supported.
- A.5 To monitor the growing market for ultra-low emission vehicles and the impact on UK businesses, we'd like to collect the following: site of vehicle production; anticipated UK supply volume by year; UK presence; UK opportunities; associated companies; and future applications on the first section of the Application Form. This information does not form part of the eligibility assessment. Before applications are reviewed the first section is detached.
- Site of vehicle production – where will the vehicle be produced.
 - Anticipated UK supply volume by year – an estimate of how many vehicles are to be offered for sale in the UK in each financial year to 2021/22.
 - UK presence – facilities and support – how many facilities does the company have in the UK? How is the company planning to provide vehicle servicing, maintenance and engineering support for this vehicle?
 - UK opportunities – what opportunities do you see the UK presenting to your business in terms of vehicle design, development, manufacture and demonstration?
 - Associated companies – do you envisage working in partnership with other companies, e.g. in the supply chain or charging infrastructure, and if so, who are your main partners?
 - Future applications– do you anticipate further models being submitted to the Grant scheme? If so, when and in what volume is it likely they will be supplied to the market?

Annex B: Guidelines to meet the Electric Vehicle Homecharge Scheme warranty criterion

- B.1 In order to be considered eligible for a grant under the Electric Vehicle Homecharge Scheme, manufacturers, their agents, or importers of vehicles to benefit from the grant (“Applicants”) are required to offer a warranty to purchasers of such vehicles and their successors in title (“Consumers”), that conforms with the requirements of Directive 1999/44/EC of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees.
- B.2 The Department for Transport (“DfT”) does not intend dictating the precise terms of the warranty to be provided by Applicants to Consumers. It is anticipated that the full extent of the warranty provided by Applicants will to a significant extent be determined by market forces and it is anticipated that it will prove to be a key differential selling point for vehicles of this type. The DfT does, however, reserve the right to disqualify an Applicant’s application for a grant under the scheme should it regard the terms of the warranty being offered by the Applicant as failing to meet the minimum criteria required by the DfT. In addition, the Applicant must be able to satisfy the DfT that it is able to fulfil the terms of the warranty being offered by it.
- B.3 With respect to the warranty requirement, in order to qualify for a grant under the plug-in car grant, the Applicant must as a minimum requirement provide the following to the Consumer:
- 1 A warranty of at least three years or 60,000 miles (96,500 km) from the date of transfer of ownership to the Consumer, regarding the vehicle excluding the battery or fuel cell and electric drive train. For avoidance of doubt, the warranty should cover all equipment supplied with the vehicle, including the charge cable. External equipment installed in the customers’ home, for example charging units, does not need to be covered by the vehicle warranty.
 - 2 A warranty of at least three years or 60,000 miles (96,500 km) from the date of transfer of ownership to the Consumer regarding the battery or fuel cell and electric drive train of the vehicle. In addition the Applicant must offer to the Consumer the option of extending the warrantee regarding the battery and electric drive train of the vehicle by a further two years. The Applicant may choose to attach an additional cost to this warranty extension.

- i. The Applicant must guarantee to the Consumer that the battery or fuel cell and electric drive train of the vehicle will retain a reasonable degree of performance for the period of the warranty.
- ii. In the event of a fault or deficiency in performance being found in the battery or full cell or electric drive train of the vehicle, the Applicant must undertake to repair or replace defective parts free of charge. "Free of charge" in this context refers to the necessary costs incurred including, for the avoidance of doubt, the cost of postage, labour and materials.
- iii. The Applicant may, however, limit its liability under the warranty or thereafter for any fault or deficiency in performance of the battery or fuel cell or electric drive train of the vehicle to the extent that such fault or deficiency in performance arises from normal wear and tear or the negligence, improper use, faulty storage, insufficient care or modification of the vehicle by the Consumer, its servants or agents.
- iv. The warranty must be transferable to the Consumer's successors in title to the vehicle.

Annex C: Guidelines for preparing battery degradation evidence

- C.1 To note: similar guidance will be supplied on preparing fuel cell degradation evidence as more fuel cell vehicles come to market.
- C.2 To summarise the battery degradation requirement explained more fully on in requirement 3.6, this requirement can be met in one of three ways, either through;
 - a. Warranty terms that explicitly cover the battery against unreasonable degradation (see requirement 3.6 for full details);
 - b. Actual data from tests undertaken on an appropriate sample of batteries that have been in service for a period of three or more years, showing that they have not degraded unreasonably;
 - c. Written assurance from the applicant that the battery will offer a reasonable performance, comparable with or better than the rates of degradation specified in requirement 3.6. The applicant must provide evidence to support their assurance.
- C.3 In cases where the applicant is seeking approval via route C, the evidence provided may be in the form of illustrative evidence of the degradation rate under certain conditions, such as under an accelerated testing regime, together with a supporting explanation of the way in which this evidence demonstrates long term maintenance of the performance.
- C.4 The panel may consider the following elements as indicators of quality sufficient to offer reasonable performance during normal use. In this context, they will consider what is appropriate to the vehicle and range/performance stated by the manufacturer. The applicant may wish to identify the possible failure modes and mitigating actions that have been taken.
- C.5 As a guide to the level of detail expected, we would not expect the evidence submitted to require more than ten pages. Annexes can be provided if desired. The assessment panel and/or supporting Independent Technical Experts may request additional information to inform assessment of the application.
- C.6 Described below are the types of indicators or factors which the panel and independent technical experts will take into account when assessing this evidence.

1 **Battery Cell**

- Data at the cell level can include the published test data of cell manufacturers.

TRANSPORTATION

- Conforms to UN transport standard ST/SG/AC.10/27

CYCLING TESTS

- Provide appropriate evidence, to represent the final application of:
 - C-Rating
 - Depth of discharge
 - Influence of temperature on characteristics

SELF DISCHARGE RATES

- Values and method of establishing them

IMPEDANCE

- Measurement method and evolution with both elapsed time and use

CAPACITY

- Measurement method and evolution with both elapsed time and use

2 **Battery Pack**

- Evidence needs to clearly show how the cells have been combined to produce performance in a battery pack that meets the stated specification.

MECHANICAL INTEGRITY

- Resistance to stresses caused by dimensional changes of cells in operation
- What vibration, strength and damage testing has been performed?
- Strategy for preventing and containing effects of cell failures.

THERMAL INTEGRITY

- Please provide a summary of your thermal management strategy and how it is achieved, such as for example cell-to-cell temperature variation and overall pack temperature control.

CYCLING TESTS

- Are the tests appropriate to the claimed usage of the vehicle?
- Are the cycling profiles, ratings and temperatures of the tests appropriate?

ENVIRONMENTAL RESISTANCE

- What is the IP rating of the pack?
- Resistance to dusts and liquid and gaseous contaminants
- Resistance to extremes of temperature.

BATTERY MANAGEMENT SYSTEM

- How does the BMS ensure that the individual cells are not required to operate outside of its specification?

3 **Vehicle**

- The integration of a battery pack into the operational context of a vehicle can impact on the battery degradation rate. How has this been considered by the manufacturer? In addition to the points below, the issues considered at the pack level should also be addressed at the vehicle level.

BATTERY MANAGEMENT SYSTEM

- How does the BMS ensure that the battery pack is not required to operate outside of its specification?

THERMAL INTEGRITY

- What cooling strategy has been put in place to support the operation of the battery in the UK environment?

ONBOARD DIAGNOSTICS

- What error and information messages will be provided to the driver on the status of the battery? What error messages will be recorded for maintenance?

DIRT, DUST, WATER INGRESS AND MECHANICAL STRESS

- What measures have been taken to assess and control these factors?