



Office for  
Low Emission  
Vehicles

# Plug-in Motorcycle Grant Vehicle application form and guidance notes

**Version 2.2**

**August 2020**

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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.

The plug-in motorcycle grant (PIMG) has been launched in 2016 to help bridge the price gap between the cost of zero emission motorcycles and petrol motorcycles.

A list of motorcycles that are currently eligible for the PIMG can be found [here](#) on gov.uk.

We regularly review grant levels to ensure that they are appropriate for the market. The plug-in motorcycle grant will continue until at least Financial Year 2022-23.

# How the scheme operates

Manufacturers, or their recognised Sole UK Authorised Representatives, must apply to OLEV to have their vehicles included as part of the scheme. Following application, OLEV will assess all motorcycles and scooters to ensure they meet the minimum technical criteria for the scheme, as set out in this document. The criteria cover certain technical, performance and consumer assurance requirements and are intended to provide a minimum level of assurance and service to consumers.

The grant will be available to customers at the point of purchase directly from the Dealer or manufacturer's representative; consumers will not have to go through a grant application process themselves. The grant will only be payable by OLEV to the Manufacturer or the Sole UK Authorised Representative of the manufacturer following the submission of a grant claim by a franchised dealer, if the claim meets with all of the conditions of the scheme.

## Eligible Vehicles

The OLEV Plug in Motorcycle Grant (PIMG) only applies to a new motorcycle or scooter that meets all of the eligibility criteria for the scheme, as set out on OLEV's website, and that has been approved by OLEV. We reserve the right to alter these criteria for any reason if, for example, during the course of the grant scheme new safety requirements or European regulations or standards come into force for motorcycles or scooters.

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](mailto:olev.enquiries@olev.gov.uk).

The grant is only payable for eligible zero emission motorcycles and scooters at their first (new) registration. The grant does not apply to converted or modified vehicles.

## Electric Vehicle Homecharge Scheme (EVHS)

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). Customers who are the registered keeper, lessee or have primary user of an eligible electric vehicle can receive a grant towards the total capital costs of the chargepoint and associated installation costs.

To increase support in this area, the scope of the EVHS is now being opened up to now include motorcycles. Some of the criteria the motorcycles will have to meet in order to be eligible for the EVHS, as well as the PIMG, is slightly different. See below the criteria for a motorcycle to be eligible for the EVHS.

### EVHS criteria overview for motorcycles

1. Vehicle category: L3 only
2. Range: 50km
3. Charging plug type: Type 1, Type 2 (or CCS Combo 2)

Requirements for the other areas of the vehicle required by the PIMG remain the same to be eligible for the EVHS.

## Manufacturer Agreement

Details of the relationship between OLEV and the Manufacturer, or the Sole UK Authorised Representative of the Manufacturer, is described in the OLEV Vehicle Incentive Scheme Manufacturers Agreement ('the Manufacturers Agreement'). This document is only issued to the Manufacturer or their Sole UK Authorised Representative once a vehicle has been approved by OLEV as eligible under the scheme, and grant is only payable once the Manufacturer or their Sole UK Authorised Representative has agreed to the terms and the document is returned signed.

It is intended that the primary relationship will be between OLEV and the Manufacturer's Sole UK Authorised Representative. It will be the responsibility of the Sole UK Authorised Representative to ensure their franchise dealer network provides OLEV with completed Grant Order Forms for each vehicle sold under the scheme. The Sole UK Authorised Representative will also be responsible for ensuring franchise dealers provide the necessary monthly information in order that they are able to complete the Grant Claim Form. Grant payments will be made by OLEV directly to the Sole UK Authorised Representative, based on information submitted during the monthly payment run.

## Claiming the grant

Once a motorcycle or scooter has been formally approved on to the scheme and a signed copy of the Manufacturers Agreement has been received by OLEV, details of the eligible vehicle will be published on the OLEV website. The manufacturer and its selected dealerships will then be given access to an online portal, through which they can register claims for eligible vehicles. Claims will be paid to the manufacturer on a monthly basis.

From the customer's point of view, the grant is deducted from the base price of the vehicle at the point of sale by the dealership, so there is no paperwork for them to complete in order to benefit from the grant. Both private consumers and businesses can benefit from the plug-in car grant when purchasing a qualifying ultra-low emission vehicle and registering it to a UK address<sup>1</sup>.

## Making a vehicle application

Manufacturers or their UK Sole Authorised Representatives 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 it to [olev.enquiries@olev.gov.uk](mailto:olev.enquiries@olev.gov.uk) for assessment by the OLEV grant panel. Supporting evidence should be in English.

Detailed guidance on how to complete the application form is given in section 3. Any questions regarding the application process should be sent to .

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<sup>1</sup> Where registered is defined as being registered in accordance with section 21 of the Vehicle Excise and Registration Act 1994 and licensed for use on UK roads, or registered according to the terms of the Diplomatic Privileges Act 1964, and licensed for use on UK roads.

## The assessment process

OLEV 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 a PIMG application number
2. Applicant submits a completed application form, with the necessary supporting evidence, to [olev.enquiries@olev.gov.uk](mailto:olev.enquiries@olev.gov.uk).
3. OLEV confirms the application has been received.
4. An initial review of the supplied documentation is conducted by OLEV. Following this review:
  - a. If the required documentation appears to be present, and where the eligibility criteria appear to be met and align with the documentation provided, the documents provided will then be forwarded to the Vehicle Certification Agency (VCA) for a more detailed review – see step 5
  - b. If the documentation provided does not align with the details entered on the application form, or if there is any information that appears to be missing, OLEV will send the applicant the details/issues of concern. It is required that these are addressed before the application can move to the next step (step 5)
5. The VCA performs a more in-depth review and confirms to OLEV the validity of type approval certificates presented as evidence.
6. Officials at the Department for Business, Energy and Industrial Strategy (BEIS) will then review the warranty documents, and approve the application based on whether the warranty provided meets the minimum warranty requirements set out in this guidance.
7. If the vehicle passes the assessment process, a letter containing the Manufacturers Agreement will be sent to the applicant setting out the terms of acceptance.
8. Once the vehicle is approved by OLEV and a signed copy of the Manufacturers Agreement has been received, OLEV will add the vehicle make and model to the official list on gov.uk making that model eligible under the grant scheme. OLEV will also request that DVLA add the vehicle model to the Portal where grant claims are placed, and set up first-time applicants on the DfT finance systems.

This process is summarised in the flow chart below. Any questions on the process should be sent to [olev.enquiries@olev.gov.uk](mailto:olev.enquiries@olev.gov.uk).

OLEV, or its representatives, will conduct a series of checks on any party which applies for the assessment of a vehicle under the PIMG Scheme. These checks could include credit and fraudulent activity checks as well as checks on customer



experiences. As a result of these checks, OLEV has the right to deny or suspend authorisation of an applicant to the PIMG Scheme.

### Additional costs

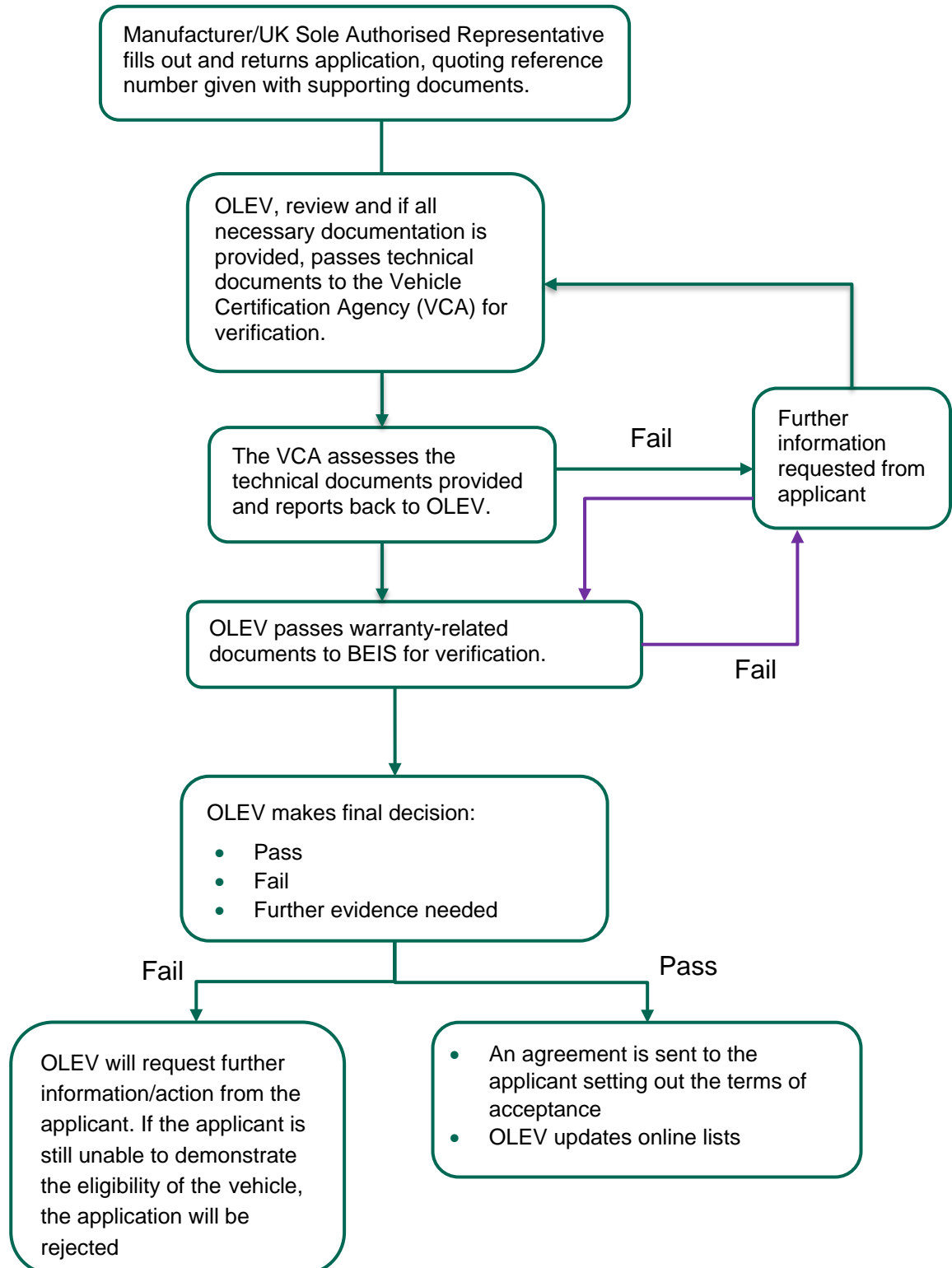
Cases where independent technical expertise is needed to assess applications are likely to be rare. In such cases, however, there may be a cost to the applicant. Independent technical advice is most likely to be required when assessing evidence of battery or fuel cell degradation (4.23).

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 to enable the applicant to decide whether they wish to meet those costs or to withdraw the application.

### Review of decision

Applicants have the right to seek a review of the OLEV Assessment Panel's decision. Further details on that process will be provided to the applicant in the letter advising that the application had been unsuccessful.

## Plug-in Motorcycle Grant application and assessment process



# Application form guidance

The application form for Manufacturers and their UK Sole Authorised Representatives can be found at Annex A of this document. This form acts as a cover sheet and must be accompanied with supporting evidence demonstrating the vehicle meets the minimum criteria for the scheme. Accepted evidence must be in English and is detailed in Section 4, with an outline checklist provided in Annex A.3.

# 1. Completing the PIMG Application Form

## **Applicant contact details – (Annex A – Section 1)**

- 1.1 **Plug in Motorcycle Grant (PIMG) application number** - This is a unique identification number provided by OLEV in response to a request for a PIMG Application. It should be used in all correspondence.
- 1.2 **Name of the applicant** - Name of company submitting the application for assessment.
- 1.3 **Applicant address** - Postal address of company submitting application for assessment.
- 1.4 **Contact details** - Named individual with contact email, phone number and address

## 2. Summary of vehicle details (Annex A – Section 2)

- 2.1 **Vehicle model name**
- 2.2 **Model variants seeking approval** - List all the variants of the model for which PIMG approval is being sought.
- 2.3 **Vehicle technology** - Provide a brief description of the zero emission powertrain technology (i.e. fixed battery, swappable battery, fuel cell etc.)
  - **Energy storage capacity and chemistry (or principle of operation)** - Detail the chemistry, in the case of the traction battery, or the principle of operation of any other powertrain energy storage device and its capacity (in kWh or other appropriate units).
  - **Fuel cell power and 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).
- 2.4 **Maximum speed (mph and km/h)** - As noted on the Certificate of Conformity (CoC).
- 2.5 **Range** - Maximum zero emissions range of the vehicle (manufacturer claimed)
- 2.6 **Number of seating positions** - Single or dual seating positions
- 2.7 **Vehicle Type Approval Category** - As noted on the EC Whole Vehicle Type Approval (ECWVTA) certificate and the CoC.
- 2.8 **Recommended Retail Price** - If this has not been finalised at the point of application, please give an approximate value. The grant is deducted from the 'Purchase Price' of the vehicle; for all sales, this means the full actual (not Recommended Retail) price of the vehicle including number plates, vehicle excise duty, VAT (as applicable) and any discount offered on the vehicle and to the consumer by the Dealer, Manufacturer, or UK Sole Authorised Representative, but excluding any optional extras, delivery charges and first registration fee. For the avoidance of doubt, any discounts must be applied to the price BEFORE the application of the PIMG subsidy.
- 2.9 **Charging type and plug type (if fitted)** - Description of the charging system and socket interface for electric vehicles.

## 3. Meeting the eligibility criteria

To be eligible under the scheme all vehicles submitted for application must be of a type that requires registration with DVLA, driver licensing, the provision of insurance and the wearing of a protective helmet<sup>2</sup> to allow them to be used legally on UK roads.

In addition to these core requirements, all vehicles must also satisfy the specific criteria set out below:

### 3.1 Vehicle Type

The vehicle must have European Community (EC) Whole Vehicle Type Approval (ECWVTA) within one of the following categories according to Directive 2002/24/EC:

- L1e - two wheel mopeds;
- L3e - two wheel vehicles;

Or:

The vehicle must be type approved within one of the following categories according to Regulation (EC) No. 168/2013/EC:

- L1e-B – two wheel mopeds;
- L3e-A1 - low performance motorcycle;
- L3e-A2 - medium performance motorcycle;
- L3e-A3 - high performance motorcycle.

#### **Accepted evidence:**

To show that the vehicle is homologated within one of the categories of Directive 2002/24/EC or Regulation (EC) No. 168/2013/EC listed above:

- A copy of the EC Whole Vehicle Type Approval certificate and the Certificate of Conformity (CoC).

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<sup>2</sup> Further information on motorcycle helmet performance and advice for getting the best fitting helmet for you can be found from SHARP – The Helmet Safety Scheme [www.direct.gov.uk/sharp](http://www.direct.gov.uk/sharp)

## 3.2 Mass

The vehicle must have a mass in running order (MIRO) of at least 50kg without the traction batteries fitted, as defined by the method described in Article 5 of Regulation (EC) No. 168/2013/EC.

### **Accepted evidence:**

To show that the vehicle has a MIRO of at least 50kg:

- MIRO as stated on the Certificate of Conformity (CoC).

For approvals under Directive 2002/24 - if there are credible concerns that the vehicle mass does not meet the above requirement, then the applicant may need to demonstrate compliance through the use of test reports from a Type Approval Authority or Technical Service to address those concerns. The Secretary of State reserves the right to impose this requirement on all applications throughout the lifetime of the scheme.

## 3.3 CO<sub>2</sub> Emissions

The vehicle must be zero carbon emissions i.e. output zero grams (0g) of CO<sub>2</sub> per km.

### **Accepted evidence:**

To verify the vehicle's output of CO<sub>2</sub> emissions as 'zero':

- For approvals to Regulation (EC) No. 168/2013/EC, a copy of the Certificate of Conformity showing CO<sub>2</sub> emissions of 0g per km;

Or;

- For approvals to Directive 2002/24/EC, a copy of the Certificate of Conformity showing section 46 as 0 (g/km) for all Type I and Type II emission tests.

If there are credible concerns that the vehicle is not zero carbon emissions in service, then the applicant will need to demonstrate compliance under Regulation (EC) No. 168/2013/EC to address those concerns. The Secretary of State reserves the right to impose this requirement on all applications throughout the lifetime of the scheme.

### 3.4 Minimum speed

The vehicle must be able to travel at a speed of at least 40 km/h.

**Accepted evidence:**

To verify that the vehicle can travel at least 40km/h.

- For approvals to Regulation (EC) No. 168/2013/EC, a copy of the Certificate of Conformity showing a speed of at least 40 km/h for item 1.8;

Or;

- For approvals to Directive 2002/24/EC, a copy of the Certificate of Conformity showing a speed of at least 40 km/h for item 44.

In the event of credible concerns appearing about the vehicle actually achieving a minimum speed of 40 km/h in service, then the applicant will need to pay for the vehicle to be assessed in accordance with the technical requirements of Directive 95/1 to address those concerns. The Secretary of State reserves the right to impose this requirement on all applications throughout the lifetime of the scheme.

### 3.5 Range

The vehicle must achieve a minimum range according to vehicle class. This is:

- For category L1e and L1e-B (mopeds) – 30km
- For category L3e and L3e-A1, L3e-A2, L3e-A3 (motorcycles) – 50km

The vehicle must achieve the minimum range using the test procedure defined in Appendix 3.3 of Annex VII of Regulation (EU) No 134/2014.

**Accepted evidence:**

To verify that the vehicle's range is at least 30 kilometres for mopeds and 50 kilometres for motorcycles.

- For approvals to Regulation (EC) No. 168/2013/EC, a copy of the Certificate of Conformity showing the minimum electric range requirement above is met.

Or;

- For approvals to Directive 2002/24/EC, a test report from a Type Approval Authority or Technical Service showing a minimum electric range requirement above is met, when tested in accordance with Appendix 3.3 of Annex VII of Regulation (EU) No 134/2014.



### 3.6 Battery chemistry

The vehicle must not use lead acid or silicone lead acid traction batteries.

Accepted evidence: to verify the vehicle is not fitted with a lead acid or silicone lead acid battery as the traction battery.

- The Certificate of Conformity confirming the type of battery fitted;

Or;

- A statement of confirmation from the manufacturer regarding battery type and chemistry used.

### 3.7 Warranty for the vehicle (and battery or fuel cell)

The vehicle (excluding the traction battery or fuel cell) must be covered by a warranty for a minimum period of 2 years with unlimited mileage. 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 traction battery or fuel cell must be covered by a warranty for a minimum period of 3 years, or 30,000km, 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<sup>3</sup> 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. For vehicles designed to use detachable batteries (i.e. easily removable by the consumer without the use of tools), the warranty shall only apply to the batteries first supplied with the vehicle.

#### **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.

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<sup>3</sup> For avoidance of doubt, this additional cost will be exclusive to the calculation of the grant payment.

### 3.8 Battery or fuel cell degradation

The applicant must demonstrate that the battery or fuel cell used to drive the motorcycle or scooter propulsion system has a reasonable rate of degradation. As a guide to applicants, pending the evidence presented in each case, a reasonable level of degradation is defined as:

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

This criterion is not about setting a new ‘standard’; it is about providing a minimum level of reassurance to the market, supporting the potential second hand market and preserving the presentational integrity of the market against claims of low quality product. The scope of the evidence requested is intended to allow the applicant flexibility so that they can show their battery or fuel cell degradation rate in a manner suitable to their own development processes.

We recognise the challenges around providing the technical evidence for this criterion – the fact that different battery or fuel cell manufacturers will have developed their own quality assurance tests and procedures, the proprietary nature of some of the data produced by these tests and procedures, and the difficulty of providing long term “real world” test data on products that may be new to the market.

Technical evidence may be assessed in confidence either by the internal panel or by independent technical experts.

#### **Accepted evidence:**

- The warranty must explicitly state acceptable levels of degradation that are comparable with or better than those set out above, and specify that if the battery or fuel cell degrades at a faster rate, repair or replacement of the battery or fuel cell will be covered by the warranty in all reasonable circumstances;

Or,

- 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 to demonstrate that the degradation rate is not unreasonable and does not exceed the rates set out above. The applicant should describe the range of tests performed on the battery to provide the required evidence. Any evidence presented should be supported by a statement of the published or proprietary standard that the tests were performed in accordance with, and confirmation that the testing laboratory operates in accordance with an internationally recognised accreditation regime;

Or,

- A written assurance from the applicant that their battery will offer a reasonable performance, comparable with or better than the rates of degradation specified above. The applicant must provide evidence to support their assurance. This evidence 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.

### 3.9 Electrical Safety

For a vehicle to be eligible for the scheme it needs to comply with the requirements for electrical safety found in Annex IV of Regulation (EC) No 3/2014 or the UN ECE Regulation on the electrical safety of L category vehicles (Uniform provisions concerning the approval of vehicles of category L with regard to specific requirements for the electric power train).

In addition the manufacturer shall provide evidence of actions taken to identify and mitigate electrical safety risks, in particular what action they will take to inform consumers about the safest way to charge and use their vehicle. Issues to cover may include:

- What voltage and amperage requirement will be needed to safely charge the vehicle in domestic properties;
- What electrical safety advice will be provided to the purchaser;
- Whether charging the vehicle in domestic properties will require the installation of additional safety equipment or separate circuits;
- How the actions of the applicant will ensure compliance with the Low Voltage Directive 2006/95/EC.

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 vehicle to the consumer.

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. This will include guidance that is in line with the Low Voltage Directive 2006/95/EC.

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.
- Providing 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).

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:**

- For approvals to Regulation (EC) No. 168/2013/EC, a copy of the EC Whole Vehicle Type Approval certificate and the Certificate of Conformity.

Or;

- For approvals to Directive 2002/24/EC, a test report from a Type Approval Authority or Technical Service showing the vehicle meets the electrical safety requirements of Annex IV of Regulation (EC) No 3/2014.

Or;

- A test report from a Type Approval Authority or Technical Service showing the vehicle meets the requirements of UN ECE Regulation 136 (Uniform provisions concerning the approval of vehicles of category L with regard to specific requirements for the electric power train).

And

- Descriptions of the action taken, and planned, by the applicant to identify and mitigate electrical safety risks.

### 3.10 Hydrogen safety

The vehicle must show approval to either Regulation (EC) 79/2009 as amended by Regulation (EC) No. 406/2010 or meet the technical requirements of UN ECE Regulation 134.

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.

Or;

- A test report from a Type Approval Authority or Technical Service showing the vehicle meets the requirements of UN ECE Regulation 134 (Uniform provisions concerning the approval of motor vehicles and their components with regard to the safety related performance of hydrogen-fuelled vehicles (HFCV)).

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.

### 3.11 Charging plug type – Electric Vehicle Homecharge Scheme (EVHS)

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

**Accepted evidence:**

- 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 or Type 2 connection, or CCS Combo 2, that supports charging in mode 3, as described in IEC 61851-1.

## Annex A: PIMG 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 the guidance notes, see also checklist at section 3. 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.

<b>1 Applicant Contact Details</b>	
1.1	PIMG ID number
1.2	Applicant name
1.3	Registered company no.
1.4	Registered company address
1.5	Contact point (name, email and phone number/s)
1.6	Finance Director's name

<b>2</b>	<b>Vehicle Details</b>	
2.1	Vehicle model	
2.2	Model variants seeking approval	
2.3	Vehicle Technology	
2.3a	Battery chemistry and capacity (kWh)	
2.3b	If applicable, internal combustion engine nominal capacity (cm <sup>3</sup> )	
2.3c	If applicable, hydrogen fuel cell power (kW) and storage capacity (kg)	
2.4	Maximum speed (mph and km/h)	
2.5	Range (in km)	
2.6	Number of seating positions	
2.7	Vehicle type approval category	
2.8	Purchase Price (before grant applied)	
2.9	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**

Must be type approved to one of the following vehicle categories:

Under Directive 2002/24/EC:

- L1e
- L3e

or:

Under Regulation(EC)No. 168/2013/EC:

- L1e-B
- L3e-A1
- L3e-A2
- L3e-A3

**Evidence provided:**

- EC Whole Vehicle Type Approval certificate;
- and;*
- Certificate of Conformity (CoC)

**3.2 Mass (MIRO)**

The vehicle must have a mass in running order (MIRO) of at least 50kg without the traction batteries fitted.

**Evidence provided:**

- Certificate of Conformity (CoC)

**3.3 CO2 emissions (g/km)**

The vehicle must be zero carbon emissions.

Value: \_\_\_\_\_ g/km

**Evidence provided:**

Approvals to Regulation (EC) No. 168/2013/EC:

- Certificate of Conformity showing CO<sub>2</sub> emissions of 0g per km;
- OR;

Approvals to Directive 2002/24/EC:

- Certificate of Conformity showing section 46 as 0 (g/km) for all Type I and Type II emission tests.



<p><b>3.4 Vehicle maximum speed</b></p> <p>The vehicle must be able to travel at a speed of at least 40 km/h.</p>	<p>Value: _____ km/h</p> <p><b>Evidence provided:</b></p> <p>For approvals to Regulation (EC) No. 168/2013/EC:</p> <p><input type="checkbox"/> Certificate of Conformity showing a speed of at least 40 km/h for item 1.8;</p> <p>OR;</p> <p>For approvals to Directive 2002/24/EC:</p> <p><input type="checkbox"/> Certificate of Conformity showing a speed of at least 40 km/h for item 44.</p>
<p><b>3.5 Vehicle range</b></p> <p>The vehicle must achieve a minimum range using the test procedure defined in Appendix 3.3 of Annex VII of Regulation(EU) No 134/2014 according to vehicle class:</p> <ul style="list-style-type: none"> <li>• For categories L1e and L1e-B (mopeds) – <b>30km</b></li> <li>• For categories L3e and L3e-A1, L3e-A2, L3e-A3(motorcycles) - <b>50km</b></li> </ul>	<p>Value: _____ km</p> <p><b>Evidence provided:</b></p> <p>For approvals to Regulation (EC) No. 168/2013/EC:</p> <p><input type="checkbox"/> Certificate of Conformity showing requirement is met;</p> <p>OR;</p> <p>For approvals to Directive 2002/24/EC:</p> <p><input type="checkbox"/> Test report from a Type Approval Authority (TAA) or Technical Service (TS) to Appendix 3.3 of Annex VII of Regulation (EC) No. 168/2013/EC.</p>
<p><b>3.6 Battery Chemistry</b></p> <p>Vehicle must not use lead acid or silicone lead acid traction batteries</p>	<p><b>Evidence provided:</b></p> <p><input type="checkbox"/> Certificate of Conformity;</p> <p>OR;</p> <p><input type="checkbox"/> Statement of confirmation from manufacturer.</p>

<p><b>3.7(a) Vehicle warranty</b></p> <p>A vehicle warranty (excluding traction battery or fuel cell) for a minimum period of 2 years with unlimited mileage.</p>	<p>Vehicle warranty period _____ years</p> <p><b>Evidence provided:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A copy of the warranty document</li> </ul> <p>OR,</p> <ul style="list-style-type: none"> <li><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.</li> </ul>
<p><b>3.7(b) Battery or fuel cell warranty</b></p> <p>Battery or fuel cell warranty for a minimum period of 3 years, or 30,000km whichever comes sooner.</p> <p><i>In addition</i>, the customer must be offered the option to extend the warranty by a minimum of 2 years or 20,000kms whichever comes sooner.</p>	<p>Battery or fuel cell warranty period _____ years</p> <p><b>Evidence provided:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A copy of the warranty document</li> </ul> <p>OR,</p> <ul style="list-style-type: none"> <li><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.</li> </ul>

<p><b>3.8 Battery or fuel cell degradation</b></p> <p>Either a warranty or evidence to reasonable level of degradation is defined as:</p> <p><u>For battery electric vehicles</u>, 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><u>For fuel cell vehicles</u>, the fuel stack must maintain at least 90% of its rated voltage output for the initial 5 years.</p>	<p><b>Evidence provided:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A copy of the warranty document explicitly stating acceptable levels of degradation</li> </ul> <p>OR,</p> <ul style="list-style-type: none"> <li><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;</li> </ul> <p>OR,</p> <ul style="list-style-type: none"> <li><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 D.</li> </ul>
<p><b>3.9 Electrical safety</b></p>	<p><b>Evidence provided:</b></p> <p>For approvals to Regulation (EC) No. 168/2013/EC:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Copy of EC Whole Vehicle Type Approval Certificate and Certificate of Conformity;</li> </ul> <p>OR;</p> <p>For approvals to Directive 2002/24/EC:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Test report from a Type Approval Authority (TAA) or Technical Service (TS) to Annex IV of Regulation (EC) No. 3/2014/EC;</li> </ul> <p>OR;</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Test report from a Type Approval Authority or Technical Service showing the vehicle meets the requirements of UN ECE Regulation 136</li> </ul> <p>AND</p>

	<input type="checkbox"/> Descriptions of the action taken, and planned, by the applicant to identify and mitigate electrical safety risks including, but not restricted to the best practise model defined in section 3.9.
<b>3.10 Hydrogen safety</b>	<b>Evidence provided:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> A copy of the type approval certificate to Regulation (EC) 79/2009;</li> <li style="padding-left: 20px;">OR;</li> <li><input type="checkbox"/> a test report from a Type Approval Authority or Technical Service showing the vehicle meets the requirements of UN ECE Regulation 134</li> <li style="padding-left: 20px;">AND</li> <li><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.</li> </ul>
<b>3.11 Charging plug type – Electric Vehicle Homecharge Scheme (EVHS)</b>	<input type="checkbox"/> Declaration from the vehicle manufacturer signed by someone able to sign on the company’s behalf stating the vehicle is be able to charge through the use of a BS EN 62196 compliant Type 1 or Type 2 , or CCS Combo connection 2, that supports charging in mode 3, as described in IEC 61851-1.

\_\_\_\_\_ 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 Motorcycle Grant guidance notes.

## Annex B: Additional Information

B.1 This information is not considered by the assessment panel. (See text below on completing this section)

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

## **Additional Information**

- B.2 The Department for Business, Innovation and Skills, and the Department for Transport will monitor the uptake of the PIMG to ensure best value is delivered for the ultra-low carbon vehicle market and that consumer purchases will be properly supported.
- B.3 To monitor the growing market for zero emission motorcycles and scooters and the impact on UK businesses, we'd like to collect the following information: site of vehicle production; UK presence; anticipated UK supply volume by year; description of UK distribution network; 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.
- B.4 **Site of vehicle production** – where is/will the vehicle (be) produced.
- B.5 **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?
- B.6 **Anticipated UK supply volume by year** – an estimate of how many vehicles are likely to be offered for sale in the UK in each financial year to 2022/23.
- B.7 **Description of UK distribution network** – explain the UK distribution channels for these vehicles. Are they for sole distribution arrangement only or through franchised outlets, or other?
- B.8 **UK opportunities** – what opportunities do you see the UK presenting to your business in terms of vehicle design, development, manufacture and demonstration?
- B.9 **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?
- B.10 **Future applications** – do you anticipate further models being submitted to this grant scheme? If so, when and in what volume is it likely they will be supplied to the market?

## Annex C: Guidelines to meet the Plug-in Motorcycle Grant warranty criterion

- C.1 In order to be considered eligible for a grant under the Plug-in Motorcycle Grant scheme, manufacturers, their agents, or importers of vehicles that 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.
- C.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.
- C.3 With respect to the warranty requirement, in order to qualify for a grant under the Plug-in Motorcycle Grant scheme, the Applicant must as a minimum requirement provide the following to the Consumer:
- A warranty of at least two years with unlimited mileage, from the date of transfer of ownership to the Consumer, regarding the vehicle excluding the battery or fuel cell. 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.
  - A warranty of at least three years or 30,000km from the date of transfer of ownership to the Consumer regarding the battery or fuel cell. In addition the Applicant must offer to the Consumer the option of extending the warranty regarding the battery or fuel cell by a further two years. The Applicant may choose to attach an additional cost to this warranty extension. For vehicles designed to use detachable batteries (i.e. easily removable by the consumer without the use of tools), the warranty shall only apply to the batteries first supplied with the vehicle.

- C.4 The Applicant must guarantee to the Consumer that the battery or fuel cell will retain a reasonable degree of performance for the period of the warranty.
- C.5 In the event of a fault or deficiency in performance being found in the battery or full cell, 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.
- C.6 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 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.
- C.7 The warranty must be transferable to the Consumer's successors in title to the vehicle.



## Annex D: Guidelines for preparing battery degradation evidence<sup>4</sup>

- D.1 To summarise, the battery degradation requirement can be met in one of three ways. Either through:
1. Warranty terms that explicitly cover the battery against unreasonable degradation<sup>5</sup>;
  2. Provide 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;
  3. Provide written assurance that the battery will offer a reasonable performance, comparable with or better than the rates of degradation specified in paragraph 4.23. The applicant must provide evidence to support their assurance.
- D.2 In cases where the applicant is seeking approval via route iii, 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.
- D.3 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 the mitigating actions that have been taken.
- D.4 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.
- D.5 Described below are the types of indicators or factors which the panel and independent technical experts will take into account when assessing this evidence:

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<sup>4</sup> To note: similar guidance will be added on preparing fuel cell degradation evidence when this technology comes to market.

<sup>5</sup> For battery electric vehicles we define a reasonable level of degradation as maintaining 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

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

### **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.

### **On-board Diagnostics**

- What error and information messages will be provided to the rider 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?