

Triple E Eligibility Criteria

Category: Electric and Alternative Fuel Vehicles

Technology: Electric Vehicles and Associated Charging Equipment

An Electric Vehicle is defined as a vehicle covered under the EU vehicle categories set out in Table 1 and powered fully or partially by electricity. Associated Charging Equipment is accordingly defined as the equipment required to recharge the energy store of a full or partial electric vehicle. All components necessary to recharge the energy store of a full or partial electric vehicle are included.

Electric Vehicles and Associated Charging Equipment is considered to include the following:

Battery Electric Vehicle

A Battery Electric Vehicle (BEV) is powered solely by electricity stored in batteries within the vehicle which need to be recharged by plugging into recharging points

Hybrid Electric Vehicle

A Hybrid Electric Vehicle (HEV) is a vehicle that derives its power from a combination of electricity generated onboard the vehicle and stored in a battery and an internal combustion engine.

Plug-in Hybrid Electric Vehicles

Plug-in Hybrid Electric Vehicles (PHEV) operate similarly to conventional hybrid electric vehicles but the battery can also be recharged by plugging into recharging points.

Electric Vehicle Charging Equipment – for ACA and Triple E Register

The electric Vehicle Charging Equipment is the ancillary equipment (charge point) necessary to recharge electric vehicles from a commercial or domestic electricity point.

Electric Vehicle Charging Equipment – Register of Smart Chargers qualifying for SEAI EV Home Charger Grants

This list is the list of EV Smart Chargers which qualify for grant support via SEAI's EV Home Charger grant scheme. EV Home Charger grant applicants apply online and must select a product contained on this list before grant approval and payment. (Choose Product Programme "Electric Vehicles" when registering via Triple E online portal).

Eligibility Criteria

To be included on the Triple E Register or SEAI Grants (Smart Charger register), the specific Electric Vehicles or Electric Vehicle Charging Equipment must meet *all* of the relevant requirements set out below. Presently, there are two separate submissions for the Triple E Register and Smart Charger Register.

Note: Supporting documentation that clearly demonstrates Triple E compliance according to the conditions below will be required as part of the Triple E checking process and the Smart Charger register checking process. Detailed information on the types of documents accepted can be found in the separate Supporting Documentation guidelines.

Battery Electric Vehicle specific Eligibility Criteria:

No.	Condition
1.	The vehicle must have an electric motor size > 1kW.
2.	The vehicle must achieve a range of 60km before recharging.

Hybrid and Plug-in Hybrid Electric Vehicles specific Eligibility Criteria:

No.	Condition
3.	The vehicle must have an electric motor size > 1kW.
4.	Vehicle category M1 must achieve a CO2 emission of less than 120g/km (as determined by S.I. No. 443 of 2000).
5.	Light commercial vehicles from vehicle categories other than M ₁ and up to 3,500kg must achieve a CO2 emission of less than 175g/km (as determined by S.I. No. 443 of 2000).

Electric Vehicle Charging Equipment specific Eligibility Criteria (for Triple E and ACA):

No.	Condition
6.	<ul style="list-style-type: none"> The equipment must comply with the appropriate European standard(s), or scientific equivalent, applicable to the type of charging equipment.

SEAI Grants – Smart Charger specific Eligibility Criteria (register for Smart Chargers list only):

No.	Condition
7.	<p>All the following standards with subsequent amendments or updated Directives relevant at the time of product registration must be met.</p> <ul style="list-style-type: none"> • Declaration of conformity 93/465/EEC – CE Mark • Low Voltage Directive (LVD) (2014/35/EU) • Electromagnetic Compatibility (EMC) Directive 2014/30/EU • Radio Equipment Directive (RED, EU directive 2014/53/EU) • Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) 2011/65/EU • Waste Electrical and Electronic Equipment recycling (WEEE) Directive 2012/19/EU <p>If Applicable:</p> <ul style="list-style-type: none"> • I.S. EN IEC 61851 - Conductive Charging
8.	Warranty Confirmation
9.	Attributes Validation

Table 1: Definition of EU vehicle categories according to Regulation (EU) No 168/2013 2002/24/EC and Directive 2007/46/EC

Category L - Mopeds, Motorcycles, Motor Tricycles and Quadricycles

Category	Description
L1e	Two-wheel vehicles with a maximum design speed of not more than 45 km/h and characterised by an engine whose: <ul style="list-style-type: none"> ▪ maximum continuous rated power is no more than 4 kW in the case of an electric motor
L2e	Three-wheel vehicles with a maximum design speed of not more than 45 km/h and characterised by an engine whose: <ul style="list-style-type: none"> ▪ maximum continuous rated power does not exceed 4 kW in the case of an electric motor
L3e	Two-wheel vehicles without a sidecar fitted with an engine having a cylinder capacity of more than 50 cm ³ if of the internal combustion type and/or having a maximum design speed of more than 45 km/h
L4e	Two-wheel vehicles with a sidecar fitted with an engine having a cylinder capacity of more than 50 cm ³ if of the internal combustion type and/or having a maximum design speed of more than 45 km/h
L5e	Vehicles with three symmetrically arranged wheels fitted with an engine having a cylinder capacity of more than 50 cm ³ if of the internal combustion type and/or a maximum design speed of more than 45 km/h
L6e	Quadricycles whose unladen mass is not more than 350 kg, not including the mass of the batteries in case of electric vehicles, whose maximum design speed is not more than 45 km/h, and <ul style="list-style-type: none"> ▪ whose maximum continuous rated power does not exceed 4 kW in the case of an electric motor. These vehicles shall fulfil the technical requirements applicable to three-wheel mopeds of category L2e unless specified differently.
L7e	Quadricycles other than those referred to in category L6e, whose unladen mass is not more than 400 kg (550 kg for vehicles intended for carrying goods), not including the mass of batteries in the case of electric vehicles, and whose maximum net engine power does not exceed 15 kW. These vehicles shall be considered to be motor tricycles and shall fulfil the technical requirements applicable to motor tricycles of category L5e unless specified differently.

Category M - Motor vehicles having at least four wheels and for the carriage of passengers

Category	Description
M1	Vehicles for the carriage of passengers and comprising not more than eight seats in addition to the driver's seat and having a maximum mass not exceeding 3.5 tonnes
M2	Vehicles for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass not exceeding 5 tonnes
M3	Vehicles for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 tonnes

Category N - Power-driven vehicles having at least four wheels and for the carriage of goods

Category	Description
N1	Vehicles for the carriage of goods and having a maximum mass not exceeding 3.5 tonnes
N2	Vehicles for the carriage of goods and having a maximum mass exceeding 3.5 tonnes but not exceeding 12 tonnes
N3	Vehicles for the carriage of goods and having a maximum mass exceeding 12 tonnes

SEAI Grants – Smart Charger specific Eligibility Criteria (register for Smart Chargers list only):

For submissions to the **SEAI Grants (Smart Charger register)** the following **attributes** must be captured and validated by the system. The product must be capable of demonstrating the attribute and meeting the performance values outlined in the following table. The product manual and supporting evidence will be checked to confirm that information provided in the table is correct and SEAI may make requests for additional supporting information if necessary to verify performance.

Attribute for Smart Charger Register	Qualifying criteria
Does the charger comply with the appropriate standards as listed in the Triple E Eligibility Criteria document found on Categories and Criteria section of the SEAI Triple E website? Field Type: Drop Down Options: Yes/No	Yes
The charger must be able to receive, send, and process information, and react to it by adjusting the rate of charging or discharging. Is this the case? Field Type: Drop Down Options: Yes	Yes
The charger must be capable of adjusting its operation based on data from an external device such as a power meter. Is this the case? Field Type: Drop Down Options: Yes	Yes
The charger must be able to monitor, record and transmit energy consumption. Is this the case? Field Type: Drop Down Options: Yes	Yes
Is the charger capable of DC Charging or AC Charging or both? Field Type: Drop Down Options: AC, DC, AC & DC	Select
Is the charger capable of V2G or V2X? Field Type: Drop Down Options: V2G, V2X, V2H, None	Select
What is the IP rating (when the plug is disconnected)? Field Type: Integer Range: 44 to 69	Enter Value within Range
The charger must be capable of displaying the status of charging equipment on the equipment itself through either LIGHTS, LEDs, DISPLAY or MIXTURE. Is this the case? Field Type: Drop Down Options: Yes	Yes
The charger must inhibit Mode 1 and Mode 2 charging. Is this the case?	Yes

Field Type: Drop Down Options: Yes	
What modes can the device operate in? Field Type: Drop Down Options: Mode 3, Mode 4, Both	Select
Does the charger support Type 1 connector? Field Type: Drop Down Options: Yes/No	Select
Does the charger support Type 2 connector? Field Type: Drop Down Options: Yes/No	Select
Does the charger support CHAdeMO or CCS connector? Field Type: Drop Down Options: Yes/No/Both/Neither	Select
Number of outlets supported? Field Type: Integer Range: 1 to 10	Select
AC Maximum Current Rating on each phase (Amps) Field Type: Integer Range: 0 to 1000	Select
AC Maximum Voltage Rating (V) Field Type: Drop-down Range: 230, 400	Select
AC Maximum Power Output for all outlets (kW) Display one decimal point only Field Type: Calculated Field (Display Only) Formula: AC Maximum Current Rating on each phase (Amps) * AC Maximum Voltage Rating (V) / 1000.	Enter Value
DC Maximum Current Rating (Amps) Field Type: Integer Range: 0 to 1000	Enter Value within Range
DC Maximum Voltage Rating (V) Field Type: Integer Range: 0 to 1000	Enter Value within Range
DC Maximum Power Output for all outlets (kW) Display one decimal point only Field Type: Calculated Field (Display Only) Formula: DC Maximum Current Rating (Amps) * DC Maximum Voltage Rating (V) / 1000	Enter Value
The charger must have under-voltage and over-voltage cut-out protection. Is this the case? Field Type: Drop-down Options: Yes	Yes

<p>The charger must be configured from factory to have a fail-safe mode when the communication with external source breaks down. Is this the case?</p> <p>Field Type: Drop Down Options: Yes</p>	Yes
<p>If OCPP Version Compliant what is the version number?</p> <p>Optional field (Can be empty) Value captured: Real number Range: 0 to 1000</p>	Enter Value with Range
<p>Is the charger able to upgrade to OCPP2.0?</p> <p>Field Type: Drop Down Options: Yes/No</p>	Select
<p>The charger must have appropriate security measures to ensure that its functions are resilient to cyber-attack. Is this the case?</p> <p>Field Type: Drop Down Options: Yes</p>	Yes
<p>Please describe what security measures are in place and how data is encrypted</p> <p>Field Type: Free Text Box; Mandatory field Range: 1000 characters</p>	Enter Text
<p>What is the energy efficiency of the device at full rated output? (%)</p> <p>Field Type: Integer Range: 0 to 100</p>	Enter Value within Range
<p>What is the charger standby power consumption? (kW)</p> <p>Field Type: Integer Range: 0 to 1000</p>	Enter Value within Range
<p>Operating manual demonstrating all the capabilities listed here must be available. Is this the case?</p> <p>Field Type: Drop Down Options: Yes</p>	Yes
<p>What is the period of warranty?</p> <p>Value captured: Integer (Years) Range: 0 to 100</p>	Enter Value within Range

----- End of Triple E eligibility criteria -----
Please see next section for technical detail submission and supporting documentation guidance

The following information is not part of the official criteria document published within the relevant statutory Instrument; it has been added here for guidance purposes only in order to provide assistance with the submission of product details and the provision of the required supporting documentation.

Note: All information contained within this guidance document is subject to change without notice

Technical information required in product submission

The following are the specific technical values required as part of the product submission for this technology:

Electric vehicle product type

As part of the product submission you must first select which type of electric vehicle your product is. Only one type can be chosen per submitted product.

Electric motor size

The electric motor size in kW of the vehicle product is required as a value for the product submission. It must be entered as whole number only (do not include kW symbol). There must also be no spaces or full stops after the number submitted.

Rated Range

The rated range in km of the vehicle product is required as a value for the product submission. It must be entered as whole number only (do not include km symbol). There should also be no spaces or full stops after the number submitted.

CO₂ emissions

The CO₂ emissions in g/km of the Hybrid vehicle product must be submitted to here. It must be entered as whole number only (do not include g/km symbol). There should also be no spaces or full stops after the number submitted.

Supporting documentation required

Described below is the list of documents that are accepted as proof of compliance for the specific electric vehicle and associated charging equipment conditions.

Note: This information will only be requested AFTER you submit your product's basic details online

Battery Electric Vehicle Specific Eligibility Criteria

No.	Condition	Supporting Documentation Requirement
1.	The vehicle must have an electric motor size > 1kW.	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.
2.	The vehicle must achieve a range of 60km before recharging.	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.

Hybrid and Plug-in Hybrid Electric Vehicles specific Eligibility Criteria:

No.	Condition	Supporting Documentation Requirement
3.	The vehicle must have an electric motor size > 1kW.	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.
4.	Vehicle category M1 must achieve a CO2 emission of less than 120g/km (as determined by S.I. No. 443 of 2000).	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.
5.	Light commercial vehicles from vehicle categories other than M1 and up to 3,500kg must achieve a CO2 emission of less than 175g/km (as determined by S.I. No. 443 of 2000).	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.

Electric Vehicle Charging Equipment specific Eligibility Criteria:

No.	Condition	Supporting Documentation Requirement
6.	The equipment must comply with the appropriate European standard(s), or scientific equivalent, applicable to the type of charging equipment.	<p>Accredited certification by an organisation that is accredited by a national accreditation body recognised via the European Cooperation for Accreditation or the International Accreditation Forum " that the equipment has been tested or manufactured according to a relevant standard.</p> <p><u>OR</u></p> <p>Evidence of official testing by manufacturer or independent test lab carried out according to the principles outlined in a relevant standard. Test reports should be of the format described in the 'Important notes to Product Providers' section of this document.</p> <p>Accepted Standards : EN 62196, EN61851</p> <p>See note on 'Scientific Equivalence' in the Important notes to Product Providers section of this document.</p>

No.	Condition	Supporting Documentation Requirement
7.	Compliance with EU Directive and Standards & Equipment marking to confirm compliance with EU Directives, CE Marking and WEEE	<p>Declaration of Conformity: A valid Declaration of Conformity must be provided for the product. The format and details of the document should meet recommended guidelines for Declarations of Conformity.</p> <p>The Declaration must provide a description of the product and list the product codes or range of codes which are covered by the Declaration. (Note, if the Declaration covers a range of products, then only one application is necessary here to cover the range of products. In this case, once approved, a single product name will be available on the EV Home Charger Application online drop down menu for the consumer to identify their product. If there is a substantial difference in the product power level and/or the number of phases, then it is recommended to register multiple products).</p> <p>Note: SEAI reserves the right to request the applicant to split out their products in the application into multiple submissions, should it be deemed there are differences between listed products as mentioned.</p> <p>All the following standards with subsequent amendments or updated Directives relevant at the time of product registration must be met.</p> <ul style="list-style-type: none"> • Declaration of conformity 93/465/EEC – CE Mark • Low Voltage Directive (LVD) (2014/35/EU) • Electromagnetic Compatibility (EMC) Directive 2014/30/EU • Radio Equipment Directive (RED, EU directive 2014/53/EU) • Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) 2011/65/EU • Waste Electrical and Electronic Equipment recycling (WEEE) Directive 2012/19/EU <p>If Applicable:</p> <ul style="list-style-type: none"> • I.S. EN IEC 61851 - Conductive Charging

No.	Condition	Supporting Documentation Requirement
	(Condition 7 Continued)	<p>Provide a copy of the product marking and explain relevant numbers and symbols. These markings will be taken to show compliance with, inter alia, the Waste Electrical and Electronic Equipment recycling (WEEE) Directive 2012/19/EU and with the Declaration of Conformity 93/465/EEC – CE mark.</p> <p>*SEAI reserves the right to request an approval certificate and test report which confirms testing and validation with respect to any of the standards or directives indicated before or after registration of the product on the Triple E (and EV Home Charger) register of products. If any of these reports are deemed unsatisfactory or not provided in a timely fashion i.e. within 4 working weeks, the product will be suspended or removed from the Triple E and EV Home Charger lists of registered products.</p>
8.	Warranty Confirmation	Please provide evidence of warranty arrangement in the form of a document, brochure or declaration signed and dated by manufacturer on manufacturer's headed company paper.
9.	Attributes validation	Please provide supporting documentation that validates all entries for the attributes provided (technical brochure or similar)

Important Notes to Product Providers

General

There should be a clear link between all supporting documentation supplied and the product being submitted. This will typically take the form of a product code or product name that can be cross referenced between the submitted product and relevant supporting documentation. If product codes / names have been changed since publication of the supporting documentation, then official evidence of this must be provided with the supporting documentation supplied.

Any deviation from these requirements will result in the supporting documentation not being considered adequate for the purposes of demonstrating compliance with the criteria conditions. This will in turn delay the submission and/or result in the product not being considered eligible.

Where the Triple E criteria or help documentation reference compliance to appropriate rather than specific standards, the onus is on the product provider to ensure that supporting documentation supplied references recognised standards that apply to the submitted product, i.e. the product must be covered under the scope of a recognised standard.

If any product submitted is later found not to meet the performance or specification criteria, then this product will cease to be considered eligible for the Triple E Register or the SEAI Smart Charger Product List.

Note: When supplying the supporting documentation through the online process you must ensure that the correct page number(s) of the document is referenced when compliance with the relevant condition is being demonstrated. An explanatory note should also be given where more than one page number is referenced.

Declaration of Conformity

An EU declaration of conformity (DoC) is a mandatory document that you as a manufacturer or your authorised representative need to sign to declare that your products comply with the EU requirements. By signing the DoC you take full responsibility for your product's compliance with the applicable EU law.

For a full definition please see: [Technical documentation and EU declaration of conformity - Your Europe \(europa.eu\)](#)

Test Report

A test report must comprise of the following elements:

An outline of the complete test including introduction, details on test conditions, the specific model details of the product tested, the steps taken in the test, the

results, graphical representations, and a conclusion. All documents should be on headed paper and the document should be **officially signed off. All documentation must be in English**, or include adequate translation.

Accredited Certification

Where certificates are provided, all tests must be carried out by an organisation that is accredited by a national accreditation body recognised via the European Cooperation for Accreditation (preferred) or the International Accreditation Forum. **All documentation must be in English**, or include adequate translation.

Scientific Equivalence

Some Triple E criteria conditions allow for scientifically equivalent tests and/or standards to be used. In the event that a product has not been designed, manufactured or tested to the specific standard named, then documentation relating to an equivalent internationally recognised standard may be used (where the phrase 'Or scientific equivalent' is included in the Triple E condition or help documentation). In such applications, the onus will be on the product submitter to demonstrate satisfactory equivalence of the standards. However, submissions which reference such supporting documentation may take longer to process, and if the product provider does not provide satisfactory evidence of equivalence, then the product will not be considered eligible for the Triple E register. **All documentation must be in English**, or include adequate translation.

Note: Where specific standards are cited in a condition or in the Triple E help documentation, then documentation demonstrating that the relevant products have been designed, manufactured or tested to these specific standards is preferred. Scientific equivalence is considered the exception rather than the norm.

Representative testing

Where test information is required for a range of technically similar products (e.g. configurations of one base product) then in exceptional instances a form of representative testing may be utilised once agreed in advance with SEI. Such testing is where only representative products are tested from a technically similar group or range of products. Provided a clear correlation can be demonstrated between the tested product and technically similar non-tested product, and that such a correlation clearly demonstrates the compliance of the non-tested product, representative testing may form an acceptable basis for supporting documentation.

Note: Where representative testing is used for a group or range of products, if the tested or representative product is removed from the list of eligible products then all related products are also removed.