

# Triple E Eligibility Criteria

Category: Heating and Electricity Provision

## **Technology: Photovoltaic Systems**

A Photovoltaic (PV) System is defined as advanced equipment which efficiently converts solar energy into electrical energy primarily for on-site use.

### **Photovoltaic Systems are considered to include the following:**

The module and supporting structure, the primary element of the photovoltaic system but may also include control systems (e.g. tracking mechanism and solar concentrator) and energy storage systems.

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## Eligibility Criteria

In order to be included on the Triple E Product Register\*, a Photovoltaic System must meet *all of* the relevant requirements set out below.

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

\* Also known as the specified list as per the Finance Act

### **Photovoltaic systems- Specific Eligibility Criteria**

(Applicable to all photovoltaic system equipment)

No.	Condition
1.	All equipment and/or components must be CE marked as required by the specific EU directive(s).
2.	Photovoltaic modules must comply with the relevant standards (design qualification and type approval) and outputs specified in Table 1.  (Photovoltaic module peak power output per m <sup>2</sup> must be quoted in terms of Standard Test Conditions (STC) : Irradiance of 1000W/m <sup>2</sup> ; spectrum AM 1.5G; cell temperature 25°C. The area is the gross area of the panel)
3.	Appropriate operating and maintenance manuals must be available for the end-user as part of the main contract of sale in order to optimise the achievement of any potential efficiency improvements.

**Table 1** – Minimum photovoltaic module outputs

Type	Standard to which STC tests carried out	Minimum Peak Watt ( $W_p$ ) output per $m^2$ (The gross panel area to be used in calculating)
Crystalline silicon	EN 61215	110
Thin-film	EN 61646	30

----- *End of Triple E eligibility criteria* -----

*Please see next section for guidance on:*

- 1. Technical details required in product submission**
- 2. Supporting documentation required**

# Guidance on product details and supporting documentation

**NOTE:** *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 help you to provide (a) product details and (b) the required supporting documentation.*

*All information contained in 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:

### Product Name and Code

As part of the product submission a unique product name must be included. The unique product must have an associated unique product code.

### Product Type

As part of the product submission you must select which type your product is. Only one type can be chosen per submitted application. The eligible product types are

- Crystalline silicon PV module
- Thin-film PV Module

### Power Output and Gross Module Area

The power output in Peak Watts and the gross module area (i.e. including the area of the surround or immediate frame) in m<sup>2</sup> of the product are required as values for the product submission. They must be entered as numbers only without units or sign. There should also be no spaces or full stops after the numbers submitted. The figures must comply with the criteria requirements for minimum power values. The figures must be measured to the appropriate standard outlined in Table 1 above by a suitably accredited body.

## Supporting documentation required

Described below is the list of documents that are accepted as proof of compliance for the specific Photovoltaic Panel & Ancillary Equipment conditions.

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

### Important Notes to Product Providers

Please ensure that you read the "Important Notes to Product Providers" section at the end of this document prior to submitting documentation.

**General Eligibility Criteria**

(Applicable to all photovoltaic system equipment)

No.	Condition	Supporting Documentation Requirement
1.	All equipment and/or components must be CE marked as required by the specific EU directive(s).	<p>Official and published manufacturer’s technical data sheet or brochure that demonstrates CE marking compliance.</p> <p><b><u>OR</u></b></p> <p>A copy of an official signed declaration on headed paper which confirms CE marking compliance.</p> <p>Official declarations should explicitly state the product for which CE marking is being confirmed (i.e. do not provide a letter simply stating general compliance with the relevant Triple E Condition).</p> <p>Where a document is used to demonstrate conformance for a number of products or range of products it should clearly specify each individual product covered by that document.</p>

### **Photovoltaic module - Specific Eligibility Criteria**

(To be met in addition to the general eligibility criteria)

No.	Condition	Supporting Documentation Requirement
2.	<p>Photovoltaic modules must comply with the relevant standards (design qualification and type approval), or scientific equivalent, and outputs specified in Table 1.</p> <p>(Photovoltaic module output must be quoted in terms of Standard Test Conditions: Irradiance of 1000W/m<sup>2</sup>; spectrum AM 1.5G; cell temperature 25°C)</p> <p>(The module gross area must be given in m<sup>2</sup> using the gross area of the module – i.e. including the area of the surround or immediate frame)</p> <p>The Wp/m<sup>2</sup> will be calculated automatically based on the individual values inputted.</p>	<p><b>Design Qualification</b> and Type Approval: Accredited certification and official and published manufacturer’s technical data sheet or brochure showing that the product demonstrates compliance with the standard below</p> <p><b><u>AND</u></b></p> <p><b>Performance Criteria</b></p> <ul style="list-style-type: none"> <li>• Accredited certification showing performance figures and that the product demonstrates compliance with the Peak Power Requirements specified in Table 1.</li> </ul> <p><b><u>OR</u></b></p> <ul style="list-style-type: none"> <li>• Accredited certification minus the performance figures PLUS test reports showing performance figures and that the product demonstrates compliance with the Peak Power Requirements specified in Table 1.</li> <li>• Test reports should be of the format described in the ‘Important Notes to Product Providers’ section of this document and produced or endorsed by an accredited body. The Peak Power achieved should be stated and show compliance with the Peak Power requirements specified in Table 1.</li> </ul> <p>Acceptable Standards: EN 61215 (Crystalline Silicon modules) EN 61646 (Thin Film modules)</p>

No.	Condition	Supporting Documentation Requirement
3.	Appropriate operating and maintenance manuals must be available for the end-user as part of the main contract of sale in order to optimise the achievement of any potential efficiency improvements.	<p>A copy on headed paper of a signed official statement confirming that the appropriate O&amp;M operating and maintenance manuals are provided. Where applicable, information on the availability of technical documentation to download online should be given.</p> <p><b>NB:</b> A signed declaration is required to comply with this condition in all cases. Submitting copies of user manuals is not sufficient and not required by this condition.</p>

## Important notes for product providers

### **General**

There should be a clear link between the product submitted and all supporting documentation. This will typically take the form of a *product code* or *product name* that can be cross-referenced between the submitted product and the relevant supporting documentation.

If product codes/names have been changed since publication of the supporting documentation, then you must provide official evidence of this with the supporting documentation supplied.

If there is any deviation from these requirements, the supporting documentation will not be 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 makes reference to compliance with appropriate rather than specific standards, the onus is on the product provider to ensure that the 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 it is subsequently found that any product submitted does not meet the performance or specification criteria, it will cease to be considered eligible for the Triple E register.

**Note:** When supplying the supporting documentation through the online process, you must ensure, when demonstrating compliance with the relevant condition, that the correct page number(s) of the document is referenced. When referencing more than one page number, add an explanatory note.

### **Test report**

A test report must include 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
- √ 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.

### **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.

If 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 is on the product submitter to demonstrate satisfactory equivalence of the standards. Submissions which reference such supporting documentation may take longer to process. If the product provider does not provide satisfactory evidence of equivalence, then the product will not be considered eligible for the Triple E. **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 used provided an accredited laboratory endorses the testing for all products to be included.

Such testing is where only representative products are tested from a technically similar group or range of products. Representative testing may form an acceptable basis for supporting documentation if:

- A clear correlation can be demonstrated between the tested product and a technically similar non-tested product
- and*
- Such a correlation clearly demonstrates the compliance of the non-tested product

**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.