Accelerated Capital Allowances 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. It typically consists of a photovoltaic module, supporting structure, electrical management systems, control systems and energy storage systems

Photovoltaic Systems are considered to include the following:

Photovoltaic module
A photovoltaic module_typically consists of 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.

Inverters
An inverter for a photovoltaic system is an electrical device that converts a photovoltaic's direct current (DC) output into an alternating current (AC). This allows a photovoltaic producing a DC output to connect into the site's mains electrical supply.

Eligibility Criteria

In order to be included on the ACA Specified List, a Photovoltaic System must meet *all* of the relevant requirements set out below.

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

General 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).

Photovoltaic module - Specific Eligibility Criteria

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

No.	Condition
	Photovoltaic modules must comply with the relevant standards (design

2.	qualification and type approval), or scientific equivalent, and outputs specified in Table 1. (Photovoltaic module output per m^2 must be quoted in terms of Standard Test Conditions: Irradiance of 1000W/m^2; spectrum AM 1.5G; cell temperature 25^{0}C)
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.

Inverter - Specific Eligibility Criteria

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

No.	**Condition**
4.	Must be at least 90% efficient and comply with the appropriate European standard(s), or scientific equivalent, applicable to the connection interface type.

Table 1 – Minimum photovoltaic module outputs

Type	**Standard**	**Minimum Peak Watt (W_p) output per m^2**
Crystalline silicon	EN 61215	110
Thin-film	EN 61646	30

---------- End of ACA 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 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
- PV Inverter

Rated power output

The power output in Watts / m^2 of the product is required as a value for the product submission. It must be entered as number only without units or sign. There should also be no spaces or full stops after the number submitted. The figure must comply with the criteria requirements for minimum power values.

Inverter Efficiency

The rated electrical output in % of the product is required as a value for the product submission. It must be entered as whole number only (do not include % 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 Wind Turbines & Ancillary Equipment conditions.

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

<u>Important Notes to Product Providers</u>
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).	Official and published manufacturer's technical data sheet or brochure that demonstrates CE marking compliance. **OR** A copy of an official signed declaration on headed paper which confirms CE marking compliance. 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 ACA Condition). 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.

Photovoltaic module - Specific Eligibility Criteria

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

No.	Condition	Supporting Documentation Requirement

No.	Condition	Supporting Documentation Requirement
2.	Photovoltaic modules must comply with the relevant standards (design qualification and type approval), or scientific equivalent, and outputs specified in Table 1. (Photovoltaic module output per m^2 must be quoted in terms of Standard Test Conditions: Irradiance of 1000W/m^2; spectrum AM 1.5G; cell temperature 25^{0}C)	Design Qualification and Type Approval: Accredited certification OR official and published manufacturer's technical data sheet or brochure that the product demonstrates compliance with the standard below. In the absence of accredited certification, evidence of official product testing by manufacturer or independent test lab may also be requested. **AND** Performance Criteria • Accredited certification that the product demonstrates compliance with the Peak Power Requirements specified in Table 1. **OR** • Evidence of official testing by manufacturer or independent test lab carried out according to the principles outlined in the standard(s) below. Test reports should be of the format described in the 'Important Notes to Product Providers' section of this document. The Peak Power achieved should be stated and show compliance with the Peak Power requirements specified in Table 1. Acceptable Standards: EN 61215 (Crystalline Silicon modules) EN 61646 (Thin Film modules) **NB**: The Peak Power for the unit required for the initial submission must be stated in terms of Peak Power per square metre, and not as the output for the overall module. The certificate or test data may show the Peak Power for the module as opposed to per square metre.

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.	A copy on headed paper of a signed official statement confirming that the appropriate O&M operating and maintenance manuals are provided. Where applicable, information on the availability of technical documentation to download online should be given. **NB:** 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.

Inverter - Specific Eligibility Criteria

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

No.	Condition	Supporting Documentation Requirement
4.	Must be at least 90% efficient and comply with the appropriate European standard(s), or scientific equivalent, applicable to the connection interface type.	In order to meet the requirements of this condition, documentation must be supplied for all requirements listed below. **Efficiency** Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the efficiency condition. Evidence of official product testing by manufacturer or independent test lab may also be requested – if this is case, the vendor will be informed by SEAI. **Grid Connection** Accredited certification OR official and published manufacturer's technical data sheet or brochure that demonstrates compliance with a grid connection standard relevant to the size of the unit. Evidence of official product testing by manufacturer or independent test lab may also be requested in the absence of accredited certification. Examples of relevant grid connection standards are EN50438, CER06/190, G83/1 (UK), RD661 & RD1663 (Spain), DK 5940 (Italy), VDE 0126 (Germany). See note on 'Scientific Equivalence' in Important Notes to Product Providers section at end of this document.

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 ACA 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 ACA.

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 ACA 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 ACA 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 ACA. **All documentation must be in English**, or include adequate translation.

Note: Where specific standards are cited in a condition or in the ACA 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 once *agreed in advance* with SEAI.

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.