

Accelerated Capital Allowances Eligibility Criteria

Category: Heating and Electricity Provision**Technology: Stationary Fuel Cell Systems**

A Stationary Fuel Cell System is defined as an advanced non-mobile system which uses a fuel cell or fuel cells to efficiently generate electricity primarily for on-site use. A Fuel Cell is an electrochemical conversion device which converts a fuel (hydrogen or a hydrocarbon fuel) and an oxidant (air or pure oxygen) directly into electricity in the presence of an electrolyte.

A Stationary Fuel Cell System must always contain one or more fuel cell modules, the primary element, but may also comprise of a package, containing ancillary equipment, namely:

- Fuel processing system
- Electrical management elements
- Monitoring & Control elements

provided these meet the relevant conditions listed below.

Stationary Fuel Cell Systems Eligibility Criteria:

In order to be included in the ACA specified list a Stationary Fuel Cell System must meet *all* of the 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.

No.	Condition
1.	Must have an electrical power rating of 5kW or greater.
2.	For a Fuel Cell System <u>without</u> heat recovery the minimum electrical efficiency must be greater than 35% at full load, or For a Fuel Cell System <u>with</u> heat recovery the minimum overall efficiency must be greater than 75% at full load, according to EN 62282-3-2 "Stationary Fuel Cell Power Systems – Performance Test Methods", or scientific equivalent, and the efficiency must be based on the lower heating value (LHV) of fuels.
3.	Equipment must comply with EN 62282-3-1 "Stationary Fuel Cell Power Systems - Safety", or scientific equivalent, and all relevant Irish and European regulations.
4.	All equipment and/or components must be CE marked as required by the specific EU directive(s).
5.	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.

----- End of ACA 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:

Fuel cell system type

As part of the product submission you must first select which type of stationary fuel cell your product is. Only one type can be chosen per product.

Electrical power rating

The input power rating in kW of the stationary fuel cell is required as a value for the product submission. It must be entered as whole number only (do not include kW symbol). There should also be no spaces or full stops after the number submitted. The figure must comply with the criteria requirements for minimum power rating values.

Efficiency

The efficiency (%) of the stationary fuel cell product is required as a value for the product submission. It must be entered as number only (do not include units). There should also be no spaces or full stops after the number submitted. The figure must comply with the criteria requirements for minimum efficiency values.

Supporting documentation required

Described below is the list of documents that are accepted as proof of compliance for the specific Stationary Fuel Cell System 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.

No.	Condition	Supporting Documentation Requirement
1.	Must have an electrical power rating of 5kW or greater.	Official and published manufacturer's technical data sheet or brochure that demonstrates the requirements of the condition.
2.	<p>For a Fuel Cell System without heat recovery the minimum electrical efficiency must be greater than 35% at full load,</p> <p><u>OR</u></p> <p>For a Fuel Cell System with heat recovery the minimum overall efficiency must be greater than 75% at full load, according to EN 62282-3-2 "Stationary Fuel Cell Power Systems – Performance Test Methods", or scientific equivalent, and the efficiency must be based on the lower heating value (LHV) of fuels.</p>	<p>Official and published manufacturer's technical data sheet or brochure that demonstrates the efficiency requirements of the condition. The product provider should include a product provider note stating the page number on the document supplied where compliance with the condition is demonstrated.</p> <p><u>AND</u></p> <p>Accredited certification that the equipment has been tested in compliance with the named standard and achieved the specific efficiency requirements based on the Lower Heating Value of fuels.</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 the named standard, and achieved the specific efficiency requirements based on the Lower Heating Value of fuels. Test reports should be of the format described in the 'Important Notes to Product Providers' section of this document.</p> <p>Accepted Standard: EN62282-3-2 " Stationary Fuel Cell Power Systems – Performance Test Methods".</p> <p>See note on 'Scientific Equivalence' in Important Notes to Product Providers section at end of this document.</p>
3.	Equipment must comply with EN 62282-3-1 "Stationary Fuel Cell Power Systems - Safety", or scientific equivalent, and all relevant Irish and European regulations.	<p>Accredited certification that the equipment complies with the named 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 the named standard. Test reports should be of the format described in the 'Important Notes to Product Providers' section of this document.</p> <p>Accepted Standard: EN62282-3-1 "Stationary Fuel Cell Power Systems - Safety".</p> <p>See note on 'Scientific Equivalence' in Important Notes to Product Providers section at end of this document.</p>

No.	Condition	Supporting Documentation Requirement
4.	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>OR</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 ACA 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>
5.	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 of an official signed statement on headed paper which confirms that operating and maintenance manuals are provided as part of the contract of sale. Where applicable, information on the availability of technical documentation to download online should be given.</p> <p>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.</p>

Component List

The component list contains details and part numbers of any ancillary equipment that may be supplied to a customer as an additional component to the overall submitted system. It must be formatted according to the ACA component list template.

When components are detailed in a component list, reference must be made to official and published brochures or data sheets where these components are described. These brochures/datasheets must then be supplied in addition to the component list.

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 ACA 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 ACA.

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.

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.

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. 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 ACA 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 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 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.