Accelerated Capital Allowances Eligibility Criteria

Category: Information and Communications Technology (ICT)

Technology: Uninterruptible Power Supply

An ICT Uninterruptible Power Supply (UPS) is defined as energy efficient equipment which provides uninterrupted, regulated power from a separate source when utility power fails or falls outside predetermined parameters. UPS is considered an important component of an overall advanced ICT Electrical Management system

ICT UPS equipment is considered to include the following:

Double Conversion UPS

Double Conversion UPS is an online UPS involving AC/DC rectification and DC/AC inversion with online batteries used as the primary energy store.

Delta Conversion UPS

Delta Conversion UPS is an online UPS utilising AC/DC rectification, battery energy store and DC/AC inversion. A delta transformer is also integrated to provide part load to the output.

Flywheel UPS

A Flywheel UPS uses a flywheel as an energy store. The flywheel provides energy until a secondary source of energy comes on line.

UPS Eligibility Criteria:

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

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

| No. | Condition | |
|-----|---|--|
| | Must incorporate AC / DC Inversion. | |
| 1. | <u>And</u> | |
| | Double and Delta Conversion UPS must additionally incorporate AC / DC Rectification. | |
| | Must have Integrated Filtering and Static Bypass. | |
| 2. | <u>And</u> | |
| | Delta conversion UPS must additionally have a Delta Transformer. | |
| 3. | Must meet the minimum efficiency requirements set out in table 1. | |
| 4. | Must comply with EN 62040-3 "Uninterruptible Power Systems (UPS) Method of specifying the performance and test requirements", or scientific equivalent. | |
| 5. | Must have a control system for transmitting and receiving performance data. | |

| l h | All equipment and/or components must be CE marked as required by the specific EU directive(s). |
|-----|--|
| | 20 3 33 3(3). |

Table 1 – UPS minimum efficiency requirements

| UPS Type | Efficiency @ 25% – 49% of rated full load (%) | Efficiency @ 50% – 100% of rated full load (%) |
|-----------------------|--|---|
| Double Conversion UPS | ≥ 92% | ≥ 95% |
| Delta Conversion UPS | ≥ 92% | ≥ 95% |
| Flywheel UPS | | ≥ 95% |

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:

Uninterruptable Power Supply product type

As part of the product submission you must select which type of uninterruptable power supply your product is. Only one type can be chosen per product.

Supporting documentation required

Described below is the list of documents that are accepted as proof of compliance for the specific Uninterruptible Power Supply condition.

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 incorporate AC / DC Inversion. And Double and Delta Conversion UPS must additionally incorporate AC / DC Rectification. | Official and published manufacturer's technical data sheet or brochure that demonstrates compliance with the requirements of the condition. |
| 2. | Must have Integrated Filtering and Static Bypass. And Delta conversion UPS must additionally have a Delta Transformer. | Official and published manufacturer's technical data sheet or brochure that demonstrates compliance with the requirements of the condition. |
| 3- | Must meet the minimum efficiency requirements set out in table 1. | Official and published manufacturer's technical data sheet or brochure that demonstrates compliance with the requirements of the condition. |
| 4. | Must comply with EN 62040-3 "Uninterruptible Power Systems (UPS) Method of specifying the performance and test requirements", or scientific equivalent. | Accredited certification that the equipment has been tested according to the named standard. OR 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. Accepted Standard: EN 62040-3. |
| 5- | Must have a control system for transmitting and receiving performance data. | See note on 'Scientific Equivalence' in the Important notes to Product Providers section of this document. Official and published manufacturer's technical data sheet or brochure that demonstrates compliance with the requirements of the condition. |

| No. | Condition | Supporting Documentation Requirement |
|-----|--|---|
| 6. | 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. |
| | | <u>OR</u> |
| | | 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. |

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.