



The Certification Mark for Onsite  
Sustainable Energy Technologies

## Microgeneration Installation Standard: MCS 001

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*Installer certification scheme requirements*

*Issue 2.0*

This standard has been approved by the Steering Group of the MCS.

### **REVISION OF MICROGENERATION INSTALLATION STANDARDS**

Microgeneration Installation Standards will be revised by issue of revised editions or amendments. Details will be posted on the website at [www.microgenerationcertification.org](http://www.microgenerationcertification.org)

Technical or other changes which affect the requirements for the approval or certification of the product or service will result in a new issue. Minor or administrative changes (e.g. corrections of spelling and typographical errors, changes to address and copyright details, the addition of notes for clarification etc.) may be made as amendments.

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## 1. INTRODUCTION

This certification scheme provides an ongoing, independent, third party assessment of installers of Microgeneration systems and technologies to ensure that the requirements of the appropriate standards are met and maintained. The certification process is detailed in section 11.

## 2. SCOPE

The scope of this scheme covers the requirements for companies undertaking the supply, design, installation, set to work, commissioning and handover of the following Microgeneration technologies:

- Solar domestic hot water
- Solar PV
- Micro Wind
- Micro Hydro
- Biomass
- Heat Pumps
- Micro CHP
- Renewable CHP
- Fuel cells

This scheme is open to any companies involved in the supply and design and installation and set to work and commissioning and handover of Microgeneration systems and technologies.

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### 3. DEFINITIONS

Accredited Certification Body	A body that undertakes the assessment of microgeneration installers in accordance with the requirements of this scheme and is accredited to do so in accordance with EN 45011 by UKAS or an equivalent (i.e. a member of the International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA)).
Installation Company	An organisation that is responsible for all of the following activities: supply, design, installation, set to work, commissioning and handover of Microgeneration systems and technologies.
Customer	The end-user for whom the microgeneration installation will be carried out. In consumer contracts this may be the householder or property owner (e.g. a social or private landlord).

### 4. APPLICATIONS TO JOIN THE SCHEME

Applications should be made to an accredited Certification Body operating this scheme, who will provide the appropriate application form and details of the applicable fees.

Applicants may apply for more than one Microgeneration technology.

### 5. ASSESSMENT

#### 5.1 General

The Company Nominee and relevant technical representatives from the Company must be present or available throughout the assessment process.

An Assessment is an objective examination of a Company and the Microgeneration work that it has conducted to determine the technical competence of that Company to carry out work in accordance with the relevant standards(s). Assessments are conducted using elements of questioning and observation techniques.

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Assessments start with an opening meeting to explain the purpose of the visit, the work that is to be assessed, the reporting method, the selection of the installation site(s) to be visited, and the approximate time, place and purpose of a closing meeting.

At the end of assessment or surveillance visits a closing meeting is held to discuss any non-conformity or observation reports raised and the assessor's recommendation.

If the assessment demonstrates competence that is limited to a specific product type(s) the Assessor may recommend certification that is limited in its scope.

Where non-conformity reports are raised, they must be completed and returned to the Certification Body with completed corrective and preventative actions within 8 weeks of an assessment or surveillance visit.

Where certification cannot be recommended at an initial assessment visit, a full or partial re-assessment will be considered and may be required at additional cost.

The assessment is conducted in two parts.

## 5.2 Office assessment

This is an assessment of the policies and procedures that the company has in place to meet the requirements of Appendix A. The Assessor shall also check the following:

- That the details on the application form or certificate(s) are correct
- The status of the Company's quality management system documents
- That corrective and preventive actions associated with any previous non-conformities have been taken and have been satisfactorily completed and implemented
- The records of internal reviews, corrective and preventive actions (Appendix A, Clauses 3 and 4)
- That no changes have occurred that should have been notified to the Certification Body (see Clause 10)
- The correct use of certification marks (see Clause 8)

This includes the contract review, design, installation, set to work, commissioning and handover of the appropriate Microgeneration system and technology.

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Design is defined as the formulation of a written plan including a specific list of products and fixings to form a completed system for a defined Microgeneration technology. It includes extensions and alterations to existing Microgeneration systems.

All systems must be designed in accordance with the requirements set out in the appropriate Microgeneration Standards.

Where Companies do not engage in the design of Microgeneration systems, but work solely as an installer for a client who has already formally agreed a system design; then the installer must be competent to review and verify that the design would meet the design requirements set out in the appropriate Microgeneration Standards and this should be recorded.

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### 5.3 On site assessment

This is an assessment of an installation to review the work that has been undertaken against the system design and the procedures for the installation, set to work, commissioning and handover of the system / technology.

Where requested, the Company shall provide details of recent or current installations as required by the Certification Body. The Company shall arrange access to installations selected by the Assessor.

A Certification Body may use an installation that is not fully within the scope of the Scheme for the on site assessment, if that installation provides objective assessment evidence against specific requirements of the relevant Microgeneration Installation Standards.

### 5.4 Surveillance visits

Certification is maintained through at least one annual visit, referred to as "a surveillance", which is similar in format to Assessment. Surveillance ensures that the Company is continuing to comply with the requirements of the scheme and is working within the scope of its certification. If a surveillance programme is via the minimum annual visit, this should take place during a time period that is between 2 months prior to and 4 months beyond the anniversary of the certificate issue date.

If the Company has not carried out installation work for a particular technology during the year, the surveillance may proceed on the basis of a desktop review of capability at the Company's office, subject to the Company agreeing to inform the Certification Body the next time they accept a contract to carry out an installation of the type concerned. When such an installation goes ahead an additional site assessment shall be required.

Additional surveillance visit may be required;

- If substantiated complaints against the Company are received; or
- As a result of a significant number of non-conformities being raised during a visit (in this circumstance an additional visit may be required within 12 weeks of the original visit date).

Where non-conformities cannot be resolved within 12 weeks of the original visit date the Company is suspended or the certificate withdrawn.

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The certificate holder may be expected to bear the costs of investigating complaints and additional surveillance visits.

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## 6. CERTIFICATION AND LISTING

Certificates are awarded to Companies when all assessment activities have been satisfactorily completed, the Assessor has recommended that certification is granted, any non-conformities raised during assessment are cleared and the Certification Body has formally reached a certification decision in accordance with its procedures.

Certificates contain the name and address of the Company, the Microgeneration technology(s) that have been assessed, any limitations on the scope of the certification, a unique certificate reference number and the issue number and date.

Certificates are maintained and held in force subject to satisfactory completion of the requirements for maintenance of certification (see item 7), but remain the property of the Certification Body.

Details of the successful installation companies are listed on the website at [www.microgenerationcertification.org](http://www.microgenerationcertification.org)

## 7. MAINTENANCE OF CERTIFICATION

A Company shall be eligible to remain certificated provided it continues to be engaged in microgeneration installation work for the scope indicated on the certificate and continues to comply with this standard. Certificates are valid from the date of issue and are maintained and held in force subject to satisfactory surveillance assessments but remain the property of the Certification Body.

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## 8. CERTIFICATION MARK

The Supplier shall use the Certification Mark(s) only in accordance with the Certification Bodies' instructions.

An example of the certification mark that can be used for this scheme is as follows:



## 9. COMPLAINTS AND APPEALS

An assessed company may appeal against any decision of the Certification Body in respect of its certification.

The appeal shall be made in writing, setting out clearly the grounds for such an appeal. Such an appeal shall be served on the Certification Body within twenty-one days of the date of notification of the decision being questioned. Any such appeal will be dealt with under the procedures published by the Certification Body, which shall be made available to the assessed company.

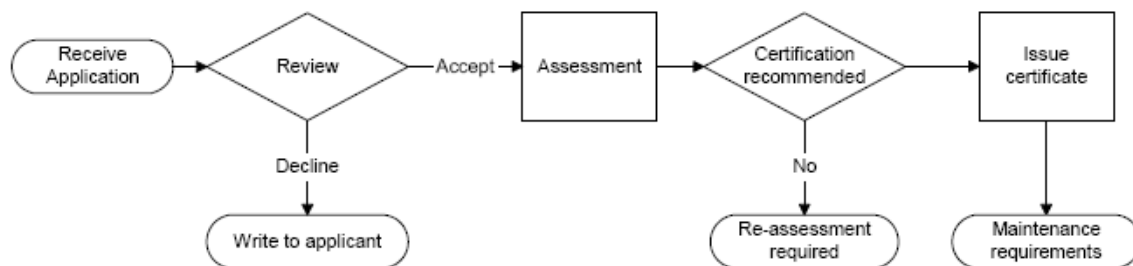
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## 10. CHANGE OF DETAILS

The company shall give notice in writing to the Certification Body of a change in legal constitution, trading or title, address, changes to technical staff, or other significant particulars and declarations upon which the current certificate was granted. Such notice shall be given to the Certification Body within thirty days of any change becoming effective.

Where the changes are such that the conditions under which certification was granted are significantly affected, the Company will be advised of the actions, and any associated fees, that will be required to be completed to maintain certification.

## 11. THE CERTIFICATION PROCESS



## 12. ADDITIONAL INFORMATION

Please note that all details of applicants and certificate holders may be shared with the operator(s) of the Office of Fair Trading (OFT's) 'code of conduct' for the purposes of complaints handling and for compiling statistics on this scheme.

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## APPENDIX A

This Appendix contains the requirements for a quality management system which are assessed as part of the certification process, ensuring that the Company meets and continues to meet the appropriate standards and scheme requirements. As a minimum, the Certification Body shall ensure that the installation contractor has addressed the requirements as detailed in the following table through documented procedures and systems.

Clause	Activity	Requirements
1.	Quality Management System	<p>The Company must have in place a maintained documented quality management system in accordance with this table. The status of the documented system must be clear in terms of issue level and/or date.</p> <p>The Company shall be a member of and, when dealing with domestic customers, shall have agreed to comply with, a code of practice (consumer code) which is relevant to the scope of business in the microgeneration sector and which is approved by the Office of Fair Trading (OFT). In the absence of any approved codes the MCS will accept codes that have completed stage 1 of the OFT approval process (e.g. REAL Code). Where appropriate, the documented management system shall address the requirements of the consumer code.</p>
2.	Company Responsibilities	<p>The Company shall specify a named individual "Nominee", whose responsibility shall be the control and overall supervision of all activities which fall within the scope of the Scheme. This Nominee shall be the senior contact between the Company and the Certification Body. The Company may name an administrative contact person for the Certification Body to communicate with who is not the Nominee and whose responsibility would be coordination and communication.</p> <p>The Company shall document who is responsible for each activity and their deputy or nominee.</p>

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3.	Internal Review	<p>The Nominee shall conduct regular (<i>at least quarterly</i>) reviews involving relevant staff members to review the effect of each of the procedures and deal with any problems in the system. Records of these reviews and corrective/preventive actions shall be kept by the Company.</p> <p>The reviews should consider, as appropriate:</p> <ul style="list-style-type: none"> <li>• Feedback from members of staff, customers and suppliers</li> <li>• Complaints</li> <li>• Products</li> <li>• External audits</li> <li>• A review of controlled documents held (currency and availability)</li> <li>• Performance of suppliers and subcontractors</li> <li>• Changes to Company documents</li> <li>• Changes to company structure or activity</li> <li>• Issues arising from inspections</li> <li>• Any other issues with an impact on the quality management system</li> </ul>
4.	Corrective / Preventive action	<p>The Company shall have procedures for corrective and preventive actions for problems and issues raised via:</p> <ul style="list-style-type: none"> <li>• Internal review</li> <li>• External assessments</li> <li>• Inspection and measurements</li> <li>• Complaints</li> <li>• Health and safety incidents</li> <li>• Product recall or rectification notices</li> <li>• Changes to standards or regulations</li> </ul>

5.	Document Control	<p>Documents produced by the Company to meet the requirements of the Scheme shall be listed and controlled. Control shall include: a unique identity, status (issue number and/or issue date), appropriate page numbering, and approval.</p> <p>Such documents shall be available at all locations where they are to be used. Superseded/obsolete documents shall be marked as such or removed from use and archived.</p> <p>Where documents are made available in an electronic form accessibility and control must be appropriate to their use.</p> <p>The Company shall have a system for backup and retrieval of documentation whether in hard copy or electronic formats.</p>
6.	External Documents	<p>The Company shall maintain copies of relevant external documents (including those MCS scheme and installation documents, and other standards and guides relevant to the scope of approval). The Company shall have a documented method/mechanism for ensuring they have access to the latest editions including any amendments.</p> <p>The Company shall have access to the most up to date copies of Building Regulations, Planning Regulations and Health and Safety Regulations.</p>
7.	Software Control	<p>Where software is used for calculation or verification a control process must be in place to ensure the correct version of software is being used.</p>

8.	Contracts and customer requirements	<p><b>A contract for the sale and installation of a system shall be entered into only between an MCS certified Company and a Customer.</b> An MCS certified Company may carry out work under subcontract to another MCS certified Company in which case clause 10 must be satisfied.</p> <p>If the MCS certified Company obtains sales leads from any third party, the Company must require that the third party complies with all the relevant requirements of the MCS standards and Consumer Code. The Company will be responsible for any non-compliance.”</p> <p>The Company shall have procedures to handle enquiries, produce quotes and accept orders/contracts. Where relevant these must comply with the consumer code scheme.</p> <p>Customers must be provided with system performance predictions in line with the relevant Microgeneration Installation Standard prior to the award of a contract.</p> <p>The Company shall review orders, contracts or tenders to ensure that:</p> <ul style="list-style-type: none"> <li>• The requirements are adequately defined for each installation</li> <li>• The Company has the resource and capability to meet the order/contract requirements. Where the time scales cannot be met, the Company shall detail when the order/contract will be fulfilled.</li> <li>• Responsibility for planning and building control compliance is clearly identified</li> </ul> <p>Records of this activity shall be maintained for all orders/contracts and tenders.</p> <p>A process shall also exist for managing amendments to contracts/ orders.</p>
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9.	Purchasing	<p>The Company shall identify their suppliers of designs, products, services and materials required for installation works. A master list of suppliers shall be established to identify their address, contact details and the service or products/materials supplied. The method for adding or removing suppliers and products/materials from the master list shall be established e.g. previous dealings/past history, product approval. Ad hoc suppliers should be added as required e.g. emergency sourcing of parts.</p> <p>Purchase orders, Confirmation of Order, Delivery Note or Invoice shall clearly identify the product, service or materials to be supplied (e.g. part numbers, grade, product standard etc).</p>
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10.	Sub-contracting	<p>In installations for private customers, any work within the scope of the scheme not undertaken by employees of the Contractor shall be managed through a formal subcontract agreement between the two parties in accordance with the policies and procedures employed by the certificated Contractor. These procedures shall ensure that the subcontractor undertakes the work in accordance with the requirements of the relevant installation standard.</p> <p>In other situations (for example new build, or for commercial customers), it is permissible for the physical installation, setting to work and commissioning to be undertaken by others (i.e. not subcontracted to the Contractor) provided that:</p> <p>(a) A contract between the Contractor and the commercial client details obligations on the client to include that evidence of skills and training of those employed by the client to do elements of work not undertaken by the Contractor are to be made available to the Contractor to ensure that the competence requirements of this standard are met and that access to the site for training and supervision in accordance with the following sections is agreed in advance.</p> <p>(b) The certificated Contractor provides additional product-specific training for those undertaking the work not undertaken by the certificated Contractor.</p> <p>(c) The certificated Contractor assesses a sample number of installations under the contract which is not less than the square root of the number of installations rounded up to the nearest whole number (e.g. a new build site of 50 installations then a minimum of 8 are assessed).</p> <p>(d) The certificated Contractor assumes responsibility at handover that the installation is in full compliance with the relevant standards.</p>
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11.	Inspection of goods received	All products and materials are checked to ensure that the correct product/material has been supplied and the quantities are correct. Any critical measurements should be identified and records should indicate acceptance or rejection of products/materials. Where products or materials are rejected the basis for this shall be recorded and steps shall be taken to prevent their unintended use. The Company shall take action to arrange replacement or other suitable steps to address the identified problem.
12.	Control of work in progress	During the installation process, inspections shall take place to ensure that the requirements of the standards or specifications are met.  Commissioning and handover shall be completed in accordance with the relevant installation standard. In completing the handover the Company shall confirm that all notifiable work under the Building Regulations is being managed as agreed.
13.	Test and Measurement Equipment	The Company shall ensure that suitable equipment exists for the testing and measurement of the installations and that it is calibrated and labelled to indicate its calibration status. A record shall be kept of all such equipment, which is used by the Company. The record shall include the serial number or number allocated by the Company, scale and frequency of checking/calibration along with suitable objective evidence to demonstrate that the equipment is capable of the accuracy which is required for the specified measurements.
14.	Storage, handling, packaging and transportation	The Company shall ensure that, where storage, handling, packaging, and transportation of products takes place, it is done in a manner that protects the product from potential damage or minimises deterioration.

15.	Records	<p>The Company shall retain all key records for a minimum of six years.</p> <p>Installation records shall include at least the following documents, if they exist:</p> <ul style="list-style-type: none"> <li>• Survey documents</li> <li>• Quotations</li> <li>• Orders/Contracts</li> <li>• Commissioning checks</li> <li>• Relevant certification</li> <li>• Notifications under relevant local building regulations</li> <li>• Notifications to the MCS Installation Database</li> </ul> <p>Records relating to the quality management system shall include at least the following:</p> <ul style="list-style-type: none"> <li>• Internal review records</li> <li>• Training records</li> <li>• Subcontract arrangements</li> <li>• Equipment calibration</li> <li>• Complaint records</li> </ul>
16.	Complaints	<p>The Company shall have a written procedure for managing complaints and shall keep a record of any complaints received (justified or otherwise) and the corrective and preventative actions taken to satisfy the complaint. All complaints must be dealt with in a timely and effective manner and, where required, be handled in accordance with the requirements of the consumer code.</p>

17.	Training and competence	<p>All staff employed in installation, set to work and/or commissioning activities must have received adequate training in each of the areas/operations in which they are involved.</p> <p>The Company must have a training record for each employee which details training received, and any qualifications or certificates held by the individual. The record should be signed or verified by the employee.</p> <p>The Company must have a record detailing the MCS related activities for which each individual is approved on the basis of their competence. The competencies required for installers are detailed in the relevant installation standards.</p>
18	Health and Safety	<p>The company must have health and safety policies and procedures, including risk assessment, to ensure all installations are conducted safely.</p>

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## AMENDMENTS ISSUED SINCE PUBLICATION

DOCUMENT NO.	AMENDMENT DETAILS	DATE
1.1	'UK' removed from scheme name; 'Department of Trade and Industry' MCS mark replaced by 'BERR ' MCS mark	11/01/2008
1.2	Revision details added; website address updated from ukmicrogeneration.org to microgenerationcertification.eu; BRE Certification Limited mark replaced by BRE Global mark	25/02/2008
1.3	Gemserv details added as Licensee. Document reformatted to reflect brand update. References to BERR updated to DECC, MCS logo updated accordingly. Website and email addresses updated to reflect new name.	01/12/2008
1.4	Quality review.	10/01/2009
1.5	MCS Mark updated	25/02/2009
2.0	Standard re-ordered to aid understanding; Enhanced requirements around contracting and sales activities	01/12/2011

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