



## **LOW AND ZERO CARBON TECHNOLOGIES: OPPORTUNITIES AND THE MCS**

A guide for plumbers, heating engineers, electricians and other parties interested in installing renewable technologies on the MCS quality assurance scheme.

The UK's renewable energy strategy could provide £100 billion worth of investment opportunities and up to half a million jobs in the renewable energy sector. The MCS quality assurance scheme is a key tool to help those interested in installing renewable technologies to get involved.

# CHAIRMAN'S FOREWORD



We hope you find this document a good introduction to what the MCS is and how it works.

MCS was established as a way of demonstrating to customers that low and zero carbon technologies (LZCT) and installers are reliable and competent in a rapidly expanding market. By using the MCS Logo your customers will know you take pride in giving them a quality product and service.

We are keen to ensure that as many trades and companies as possible, of all sizes, become part of the green revolution. It is imperative to meet customers' high expectations, especially as some of the technologies will be operating for over 25 years.

Being a part of this energy revolution will develop green skills and wider business opportunities, which the MCS brand will support by providing a mark of confidence. MCS will also enable you to access markets and reduce costs to your customers by assuring quality, knowledge and understanding are built into all aspects of the pre-sale and installation activities.

We believe that, by having the MCS Logo you will be able to distinguish yourselves as an installer company of merit.

This document will help you to learn more about the scheme and how it can help you. If you need more information just call the dedicated team that supports MCS. I hope you see this as your next positive step as a professional in the Low and Zero Carbon Energy Industry.

**Gideon Richards**  
Chairman of the MCS Steering Group

# 1 INTRODUCTION

This guide explains what business opportunities exist in the microgeneration sector and why MCS is a key tool to enable you to get involved.

The UK is committed to delivering its share of the EU target for 20% of energy from renewable sources by 2020.

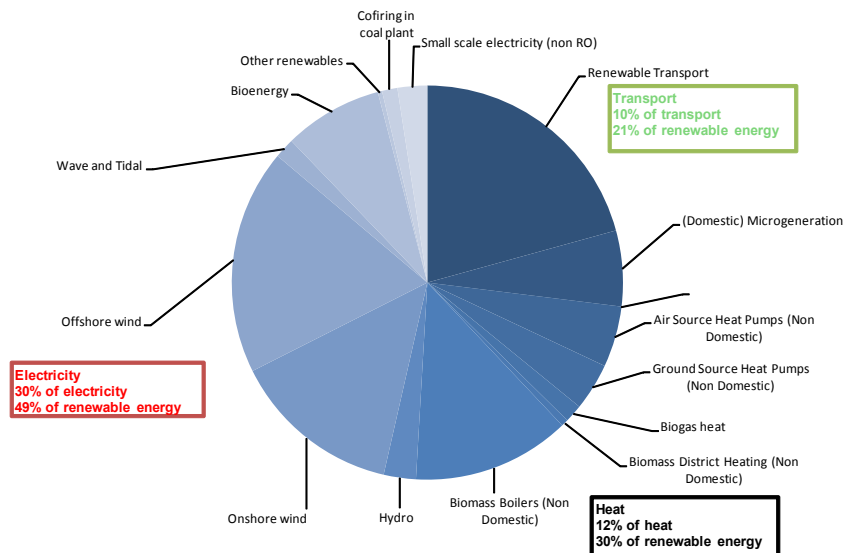
**Achieving our targets could provide £100 billion worth of investment opportunities and up to half a million jobs in the renewable energy sector by 2020<sup>1</sup>.**

50% of all our energy is used for heating and hot water and 75% of domestic households' energy consumption is for heating and hot water.<sup>2</sup>

The UK's renewable energy strategy aims for 12% of heat to come from renewable sources. Currently under 5% of UK electricity comes from renewable sources<sup>3</sup>.

It is estimated that 30% of our electricity may be delivered from renewables with 2% from small-scale electricity generation.

**Illustrative mix of technologies in lead scenario, 2020 (TWh)**



*From the UK Renewable Energy Strategy 2009*

1 [http://www.decc.gov.uk/en/content/cms/what\\_we\\_do/uk\\_supply/energy\\_mix/renewable/res/res.aspx](http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/res/res.aspx)

2 The UK Renewable Energy Strategy, DECC 2009

3 [www.berr.gov.uk/energy/statistics/index.html](http://www.berr.gov.uk/energy/statistics/index.html)

## 2 WHAT IS THE MCS?

The MCS is an internationally recognised quality assurance scheme and mark for LZCT installers and products. It was designed with input from installer and product representatives. Similar to the Gas Safe Register, the MCS gives you a mark of competency and demonstrates to your customers that you can install to the highest quality every time.



*APPROVED INSTALLER MARK*

## 3 WHY DOES IT MATTER?

The MCS demonstrates your competence to carry out an installation to your customers. In this rapidly growing industry, installers and products that carry the MCS Mark are likely to be seen as the preferred option in the market place. This is because MCS is linked to many of the key factors driving demand, such as:

- Feed-In Tariffs, which will provide guaranteed payments to individuals, business and communities for small-scale electricity generation. For technologies where there is an MCS standard, both the technology and the installer must be MCS certificated to be eligible;
- The Renewable Heat Incentive is planned for 2011 and will provide cash back to individuals, business and communities for renewable heat generation. The Government has indicated that the Renewable Heat Incentive is being linked to MCS products and installers;
- The Low Carbon Buildings Programme and Energy Saving Scotland home renewables grant schemes (heat technologies only) require MCS certificated products and installers to be used;
- The Code for Sustainable Homes, which is a mandatory requirement for all newly built homes to meet sustainability ratings, including ratings for energy and CO2 emissions. MCS certificated technologies can be used to meet the requirements of this Code;
- Planning permission for consumers for certain renewable energy technologies has now been made a lot simpler thanks to permitted development rights introduced in England and Scotland; and
- The Standard Assessment Procedure (SAP) for Energy Rating of Dwellings recognises MCS certificated products when determining whether products are eligible for inclusion in SAP assessments.

To take advantage of this growing demand you should be considering the certification process and how you can get involved now. The next section provides a flow chart of how the certification process works.

The MCS includes the following technologies:

- Air Source Heat Pumps
- Biomass
- Ground Source Heat Pumps
- Micro CHP
- Small Scale Hydro Turbines
- Solar Photovoltaic
- Solar Thermal
- Wind Turbines

## 4 HOW DOES IT WORK?

The scheme is based around a set of written standards. They contain some requirements that apply to all installers and others specific to the technology you wish to install.

The flow digaram, right, shows the certification process. The text box below explains some of the steps in more detail.

Download the latest scheme documents from the MCS website (free of charge).

Contact Certification Bodies (CB) for an understanding of how they will work with you to gain your Certification and select the one that best suits you, in terms of technologies covered and pricing structure (a list of CBs is available on the MCS website).

Draw out your business processes in a simple flow diagram (such as the one to the right) and then write down basic procedures to reflect these processes. Remember to write the working practices in a way that reflects your operations and size.

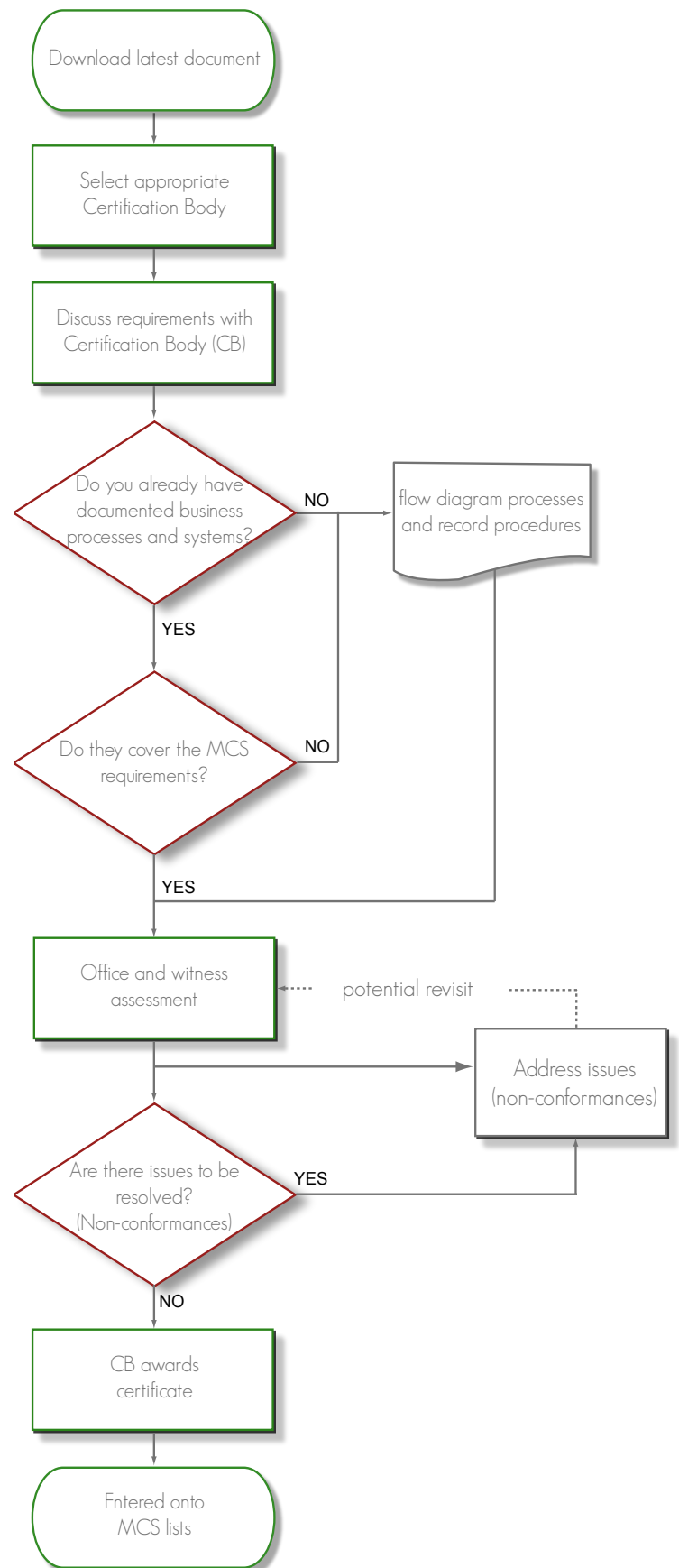
Make sure you are part of an Office of Fair Trading Scheme for MCS (see FAQs on page 6).

Once the documentation is in place, arrange for an office and installation site witness assessment.

If non-conformances are issued, resolve these to the satisfaction of the Certification Body to be awarded your Certification and Mark.

Installer details put on MCS website.

For an installation to be MCS certificated (and eligible for incentives, grants etc) you must use an MCS approved product. These can be found on the MCS website.



**CERTIFICATION PROCESS FLOW DIAGRAM**

# CASE STUDIES



“MCS has enabled Universal Green Energy to become approved installers of wind turbines. This provides increased security to our customers. MCS also ensures

that only reputable companies may install turbines, removing risks for potential customers. As an MCS accredited company, we maintain strict processes and procedures. This enables the business to flourish and be a market leader in our field. The certification process ensures our systems are maintained to exceptional standards and that our quality procedures are used daily to assist the business, not to act as a hindrance.

The MCS certification has allowed UGE to grow as the industry has grown. It has also given us as a small company, the confidence to invest in up to date systems and training for our staff. This in turn has provided us with the courage to expand into the ever widening market place of renewable energy with systems that are also expandable. We intend to expand our services to offer other renewable energies in the knowledge that MCS certification will offer the same benefits and support of our systems whilst giving our customers the assurance that we work to a rigorous and tested standard.”

*Liz Holdsworth, General Manager, Universal Green Energy*



“We joined the MCS scheme mainly to differentiate our company. It had the added benefit that our clients could get access to grants and can qualify for the Renewable Heat

Incentive. This gave us a unique selling point.

Initially we found it hard going, putting the paperwork together for the MCS, but on reflection it made me look at my business processes. I feel it has improved our office processes and made us more professional in that respect. As a result I now help other installers gain this certification.

As I often get called in to sort installs with problems, I have seen the good, the bad and the downright dangerous. I have seen at first hand that we need the MCS, just like we needed Gas Safe (formally Corgi).”

*Wayne Richardson, Managing Director, Revolution Power*



**As major suppliers of heating equipment, including renewable technologies, Baxi, Vaillant and Worcester Bosch recognise that MCS is a key tool for promoting consumer confidence in the renewables industry.**

We are all looking for ways of supporting our existing and new installers entering this exciting market. We hope our support will help small to medium sized installers prepare themselves for the new challenges ahead.

“To facilitate certification of our installer base Baxi have a wide range of training courses available and are developing a package of material which will enable much quicker and easier certification for the installer.”

*Sarah Brook, Baxi*

“Vaillant are working directly with heating installers to support and assist them through the process of MCS certification.”

*Mark Wilkins, Vaillant*

“Worcester Bosch has been developing a ‘pre MCS’ branded training course which they will promote to their database of 50,000 heating engineers and installers.”

*Neil Schofield, Worcester Bosch*

## 5 HOW DO I GET INVOLVED?

- Become a fully certificated MCS Installer Company – Gain your own certificate;
- Work full time for a certificated MCS Installer Company – MCS certification is for the company. There are plenty of existing MCS companies looking for skilled staff; or
- Become a sub-contractor to a certificated MCS Installer Company – If you want to remain independent but feel you would like to work in this field, you could be a sub-contractor to an MCS certificated company. See rules for subcontracting on the website.

## 6 FAQs

### What is an Office of Fair Trading Scheme?

It is a Code of Practice that meets the guidelines set by the Office of Fair Trading (OFT) Consumer Code Approval.

Signing up to a Code of Practice means you have agreed to offer your customers a high level of service and a method for handling complaints. A list of current codes can be found on the “How to Become MCS Certificated” pages of the MCS website.

### I’m signed up to the Competent Persons Scheme (CPS), do I still need MCS?

Yes, the CPS enables you to sign-off installations compliant with building regulation only, which reduces the costs and risk to your clients. CPS at present are not certification to the EN45011 standard, which is the international standard, however, this may happen after the consultation on CPS is complete.

MCS is certificated to the EN45011 standard, which demonstrates that all your practices and skills meet the MCS standards and requirements. This includes correctly specifying the performance of the system offered against the users requirements. Your CPS is not duplicated as the competences you have demonstrated through the CPS are taken by the Certification Bodies as part of your compliance evidence.

### How long does MCS certification take?

The length of the process depends on a number of factors. You should contact a Certification Body for more information. However, the time taken for a well structured company takes approximately 4-6 months.

### Where can I find an MCS approved product?

A list of all products is available on the MCS website.

### How much does MCS certification cost?

To fund the scheme the MCS charge a £100 annual fee. Installers are also charged £5 per installation. This £5 per installation charge ensures that the scheme charges are not onerous for smaller installer companies.

The Certification Bodies fees are different for each company. As of March 2010 the prices start from around £650 for one technology (this includes the first year’s MCS annual fee).

### How long does MCS certification last for?

You will need to have an annual surveillance visit from a Certification Body to maintain MCS certification.

### Who runs the MCS?

The MCS is overseen by key stakeholders. It is led by a steering group of industry representatives. This steering group appoints various working groups who use their technical expertise to review/develop the MCS standards.

### What do I do next?

The dedicated MCS helpdesk team would be happy to answer any questions you have. Alternatively you can talk to a Certification Body about applying, their details can be found on the MCS website.

**MCS website:** [www.microgenerationcertification.org](http://www.microgenerationcertification.org)  
**MCS helpdesk:** 0207 090 1082

Enquiries relating to the installer standard or the costs or timescales to become certificated should be made to a Certification Body.

For more information on the Renewable Energy Directive, Feed in Tariffs or the Renewable Heat Incentive see the Department of Energy and Climate Change Website: [www.decc.gov.uk](http://www.decc.gov.uk)

For more information on building regulations, please see <http://www.planningportal.gov.uk> Please note that different building regulations apply in Northern Ireland and Scotland.