

Renewable energy and sustainable building
Training Prospectus

CONTENTS

1. Introduction	2-3
2. Introductory courses	4-6
3. Qualification courses	7-12
4. MCS training	13-15
5. Assessor courses	16-17
6. Greenworks Learning Gateway	18
7. Enrolment	19
8. How to find us	20
9. Customer and supplier feedback	21

The challenge to the construction industry

The Climate Change Act has set a target of reducing carbon consumption by 34%, by 2020. In order to achieve this target, the construction industry will be put under extreme pressure to deliver low-carbon new builds, as well as cutting the carbon consumption of existing buildings through an extensive refurbishment programme of over seven million homes.

The opportunity

These demands on the construction industry can only be met by an army of construction professionals – trained in the new fields of renewable energy and sustainable building. Currently, the UK is far short of the number of installers that will be required to meet these targets. This presents a massive opportunity for tradesmen choosing to pursue a career in renewable energy and sustainable building.

How we can help

We understand that entering a new field or trade can be daunting. Brought to you by Saint-Gobain’s leading network of building distribution companies, Greenworks is here to provide all the support and training you will need to benefit from the opportunities in the renewable energy and sustainable building sector.

To complement the practical and hands-on training at the Greenworks Training Academy, the new Greenworks Learning Gateway will also provide an opportunity for Jewson, Graham, Minster, Ashworths and Gibbs & Dandy customers to access e-learning modules on a range of sustainable products and solutions, renewable technologies, market drivers and legislation updates. This additional service will offer another valuable means of education and training for the marketplace. See page 12 for further information.



GREENWORKS TRAINING ACADEMY

The Greenworks Training Academy offers a multi-purpose training space with products and solutions in real-life settings. Demonstration areas include; room sets for wet and dry work, a dedicated low-level roofing rig, a training set for the commissioning of solar thermal and solar photovoltaic (PV) systems, an elevated drainage pit and rainwater harvesting systems. The facility has three training rooms all with full IT and internet access, two of the rooms have moving walls to create a large inter-connected training area.

The lay-out of the comprehensive 15,000sq ft academy has been specifically designed to offer a practical solution-led approach to installations. Courses can incorporate real working drawings and estimating where appropriate. The open plan space allows a total of 60 delegates to be trained at the same time.

Courses at the new Greenworks Training Academy are scheduled in line with customer demand and changes to legislation, product and market drivers, and are carried out by specialist training companies and manufacturers. Based in Birmingham with excellent transport links, the academy is easily accessible to ensure customers can receive training on the latest technology quickly and effectively as soon as it reaches the market place.

Developed by the building distribution network of Saint-Gobain, Greenworks has grown to become the UK's recognised authority and market expert in sustainable building products and solutions.



Introductory courses

The following courses are designed to provide an introduction for those considering pursuing a career in renewable energy installation. They provide an introduction to the relevant technologies but are not substitutes for the full City & Guilds courses featured later in this prospectus.

- Solar Thermal
- Solar PV (Photovoltaic)
- Heat Pumps
- Rainwater Harvesting
- Underfloor Heating
- External Wall Insulation (EWI)



FREE to account holders

Renewables Awareness training

One day course – This provides an insight into renewables products, the sustainable building market, sustainable solutions, government incentives and the opportunities these create.

Renewables Awareness Training

Duration: 1 day

Fee: FOC (To account holders)

This course is designed to provide an introduction for those pursuing a career in renewable energy installation. It aims to help them decide which technology path to pursue, focusing on:

- Solar thermal
- Solar PV (photovoltaic)
- Heat pumps (air to air, air to water and ground source)
- Rainwater harvesting and greywater recycling

This course has a mix of practical hands-on sessions as well as providing an understanding of:

- The solar thermal system including principles of solar thermal, system design, solar collector construction and installation, pump station, controls and filling/ commissioning procedures
- The solar PV system including the principles of system design, module construction and installation, inverters, electrical requirements and testing and commissioning
- Heat pump systems including principles of heat pump technology, the different types of heat pumps, sizing, heat loss controls, testing and commissioning
- The rainwater and grey water harvesting market, offering training and advice from a nationally recognised supplier of rainwater harvesting equipment.

Solar Thermal

Duration: 1 day

Fee: £175 *All fees exclude VAT

An overview for those NOT requiring a formal qualification

For experienced solar thermal installers or heating installers new to solar thermal. This course covers all aspects of the solar thermal system including principles of solar thermal, system design, solar collector construction and installation, pump station, controls and filling/ commissioning procedures. Practical hands-on sessions include on-roof collector installation and filling, flushing and commissioning procedures.

Solar PV (Photovoltaic)

Duration: 1 day

Fee: £175 *All fees exclude VAT

An overview for those NOT requiring a formal qualification

For experienced solar installers, heating installers or electricians wanting to get involved with effective renewable technology. This course covers all aspects of the solar PV system including the principles of system design, module construction and installation, inverters, electrical requirements and testing and commissioning.



Introductory courses

Heat Pump Introduction Course

Duration: 1 day

Fee: £150.00 *All fees exclude VAT

An overview for those NOT requiring a formal qualification

The heat pump introduction course is aimed at sales, self build, Housing Association management, developer management and architects. This is a one-day course and comprises a general overview of the full product ranges. The introduction course is conducted by a leading Jewson/Graham heat pump supplier and is available at The Greenworks Training Academy. There are no prerequisites required to attend this course.

Rainwater Harvesting

Duration: 1 day

Fee: £150.00 *All fees exclude VAT

An overview for those NOT requiring a formal qualification

This rainwater harvesting course is a one day training and assessment course held at the Greenworks Training Academy. It is aimed at existing plumbers, builders and ground works engineers wishing to extend the scope of their activities into rainwater and grey water harvesting.

The course offers training and advice from a nationally recognised supplier of rainwater harvesting equipment. A qualification from BPEC is available on request. It covers the collection, storage and use of rainwater for such activities as domestic washing machines, WCs and flushing urinals.

The training objective of this course is for delegates to be able to select, install, maintain and service the most appropriate rainwater harvesting system.

Underfloor Heating Course

Duration: 2 day

Fee: £395.00 *All fees exclude VAT

This course has been developed by Greenworks Training Academy in association with a leading underfloor heating manufacturer. It is an underfloor heating system installers course, principally aimed at those involved in the installation of underfloor heating systems (UFH). There is a separate designers and installers course available to achieve BPEC Underfloor Heating Design.

Course modules:

- Explain the basic principles of warm water underfloor heating (UFH) systems
- State the advantages of UFH systems
- Describe the floor systems and finishes associated with UFH systems
- State the various UFH system types on the market
- Explain the operation of the UFH systems and components
- Describe the general installation and testing requirements of UFH systems, and demonstrate an understanding of a range of manufacturer-specific products
- Explain the requirements for post-installation activities **including:**
 - Commissioning the underfloor heating system
 - System operation and maintenance
 - Troubleshooting
 - User information.



Introduction to External Wall Insulation (EWI)

Duration: 1 day

Fee: £175 *All fees exclude VAT

Increasingly popular as the technically superior method of achieving ever more stringent insulation requirements, External Wall Insulation (EWI) has a wide range of possible insulants, systems and finishes. This one day course provides an overview of the complete range of render protected EWI systems along with a guidance regarding the basic principles involved.

The course is provided by Weber, an international leader in the manufacture and application of innovative and practical solutions for Building Products. It is comprised of scheduled courses and a series of further in-depth specialist courses carried out by arrangement.

Further weber.therm, system-specific courses are available by arrangement – *please contact Greenworks for details.*

Installation of Solar Thermal Collectors

Duration: 1 day

Suitable for Roofers, solar thermal installers, builders

Certification: Certificate of Attendance issued

Fee: £275 plus VAT

- Covers both flat plate and evacuated tube solar collectors
- Theory and practical training
- Health and Safety Awareness

Course Overview

- Health and Safety
- Roof access
- Collector mounting systems
- Evacuated tube collectors
- Flat plate panels
- In-roof collectors
- Plumbing requirements
- Practical installation of collectors and pipework

This solar collection installation course covers both flat plate and evacuated tubes, and is aimed at those involved with the installation of roof-mounted solar thermal collection systems. The majority of the course is of a practical nature on low-level roof rigs. Candidates are advised to bring wet weather gear and suitable safety boots, all other PPE will be provided.

Installation of Solar PV Panels

Duration: 1 day

Suitable for Roofers, solar thermal PV, builders

Certification: Certificate of Attendance issued

Fee: £275 plus VAT

Assessment Method: none

- Covers both on-roof and in-roof solar PV panels
- Theory and practical training
- Health and Safety Awareness.

Course Overview

- Health and Safety
- Roof access
- PV mounting systems
- Inverter selection
- Design considerations
- Problem solving.

This Solar PV installation course is aimed at those involved with the installation of roof-mounted solar PV systems. The majority of the course is of a practical nature on low-level roof rigs. Candidates are advised to bring wet weather gear and suitable safety boots, all other PPE will be provided. Installers wishing to undertake a solar PV course must hold a 17th edition wiring regulations qualification. This can be taken either as a full course (three days) for those without the 16th edition and a one day update for those who hold a 16th edition qualification from June 2001.

More courses are being developed with key manufacturers of sustainable building materials. A new list is published every month at www.greenworks.co.uk



Qualification courses

The courses in this section provide all the training you'll need to become an installer of the following technologies, with the following qualifications.

Solar Photovoltaic (PV) – City & Guilds, **Solar Thermal** – City & Guilds or BPEC, **Heat Pumps** – City & Guilds or BPEC
Biomass – *courses coming soon*, please check www.greenworks.co.uk for details



City & Guilds

Summit Skills have recently revised the required National Occupational Standards (NOS) for renewable training courses and Microgeneration Certification Schemes (MCS) qualification. Having been instrumental in the development of this NOS, City and Guilds are currently the only awarding body whose courses fulfil these standards. As such, training backed by any other awarding body will require some form of top-up in the future so as to maintain MCS certification.

We are therefore proud to recommend City & Guilds courses at the Greenworks Training Academy.

Please Note: As part of MCS application, you are required to demonstrate installer qualifications as a requirement for example; a solar PV MCS certification application would need to include an individual(s) 2399-11 and 12 qualification.

The following courses also require various prerequisites as detailed below.

City & Guilds 2399 Photovoltaic (PV) Training

Duration: 5 days, plus 1 day for assessment

Fee: £795 plus City & Guilds registration fees

2399-01 Level 2 award in environmental technology systems

This is the foundation course and the first step in qualifying in the installation and maintenance of renewable technologies, which can springboard candidates into specialist areas including solar PV, solar thermal and heat pumps. It is possible to undertake this course if you are not an established professional, however supplementary training for competence as an electrician or a plumber may be required to complete qualification.

This module is included within all the below (2399) courses. Applicants taking multiple 2399 courses are NOT required to retake this unless desired. The fee is included within the following individual technology courses.



2399-11 Level 3 Award in the Installation of Solar Photovoltaic (PV) Systems

The 2399-11 PV course covers the knowledge required to plan and prepare for, install (including testing and commissioning) and handover of grid connected solar photovoltaic systems that are within the scope of Engineering Recommendation G83/1 with an electrical output of up to five kilowatt peak (kWp) connected to both single and three-phase installations. Fundamentals of design awareness and component selection outcomes are also covered.

2399-12 Level 3 Award in the Installation and maintenance of Solar Photovoltaic (PV) Systems

The 2399-12 module covers the installation, commissioning and handover of Small Scale Photovoltaic Systems.

The course offers a solid base in environmental technologies and experience of installing PV technology. The qualification is recognised by the MCS certification in solar PV installation and is suited to qualified electricians and installers with one of the following prerequisites:

- N/SVQ 3 in Electrical Installation (Buildings and Structures) or equivalent earlier certification that provides evidence of competence.

In addition, if not included in the above current certification:

- BS 7671: 2008 Requirements for Electrical Installations (17th Edition) Certification.

Once the training is complete, candidates are able to design, install and maintain grid-connected PV systems and will be qualified to apply to Stroma Certification for MCS certification. MCS (Microgeneration Certification Scheme) is accredited under UKAS BS EN 45011:1998

City & Guilds 2399-01 Level 3 Award in Environmental Technology Systems

Duration: 1 day

Fee: £275 plus VAT

Assessment Method: Online multiple choice examination

- Mandatory foundation course for those taking City & Guilds 2399 Series
- Open to all persons
- Useful introduction to Environmental Technology systems
- Very beneficial course for Energy Assessors, builders, future renewable installers
- Onsite training available at your company's premises.

Course Overview

- Solar thermal (hot water)
- Solar photovoltaic
- Ground source heat pump
- Air source heat pump
- Micro-wind
- Biomass
- Micro-hydro
- Micro-combined heat and power (heat-led)
- Rainwater harvesting
- Greywater re-use.

The City & Guilds 2399-201 Level 3 Award in Environmental Technology Systems is a mandatory prerequisite qualification for installers wishing to undertake other City & Guilds 2399 installation courses, such as solar thermal or solar PV installation courses. The one day course allows candidates to develop the knowledge required to be able to communicate with others in relation to the fundamental working principles, potential to install and regulatory requirements for micro-renewable and water conservation technologies. It also prepares eligible candidates for progression to the specialist knowledge and competence units for the installation, commissioning, handover, inspection, service and maintenance of microrenewable energy and water conservation technologies.



City & Guilds 2399 Solar Thermal Training

Duration: 5 days, plus 1 day for assessment

Fee: £795 plus City & Guilds registration fees

2399-21 Level 3 Award in the Installation of Solar Thermal Systems

The 2399-21 solar thermal hot water course covers the knowledge required to plan and prepare for, install (including testing and commissioning) and handover of fully-filled and drainback solar thermal hot water systems. The emphasis is upon 'active' systems but the unit also includes some content relating to 'passive' systems. The unit also covers fundamental design techniques for systems for domestic hot water production only, with up to 20m² of collector area.

2399-22 Level 3 Award in the Installation and Maintenance of Solar Thermal Systems

The 2399-22 module covers the installation, commissioning and handover of solar thermal hot water systems.

The course offers a solid base in environmental technologies and experience of installing solar thermal hot water technology. The qualification is recognised by the MCS certification in solar thermal installation.

The course is suited to qualified installers with one of the following prerequisites:

- N/SVQ Level 2/3 in Heating and Ventilating (Domestic Installation)
- N/SVQ Level 2/3 in Heating and Ventilating (Industrial and Commercial Installation)
- N/SVQ Level 2/3 in Oil-Fired Technical Services
- N/SVQ Level 2/3 in Gas Installation and Maintenance
- or equivalent earlier certification that provides evidence of competence.

In addition, if not included in the above current certification in relation to:

- Water Regulations/Water Byelaws (WRAS or equivalent)
- Unvented Domestic Hot Water Storage Systems
- Energy Efficiency for Domestic Heating (C&G 6084 or equivalent).

Once the training is complete, candidates are able to design, install and maintain solar thermal systems and will be qualified to apply to Stroma Certification for Microgeneration Certification Scheme (MCS) certification. The MCS scheme is accredited under UKAS BS EN 45011:1998.

City & Guilds 2399 Heat Pumps Training

Duration: 5 days, plus 1 day for assessment
Fee: £795 plus City & Guilds registration fees

2399-31 Level 3 Award in the installation of Heat Pumps Systems

The 2399-31 heat pump systems course covers the knowledge required to plan and prepare for, install (including testing and commissioning) and handover of heat pump system installations. The focus is on systems up to 45kW load and include air source, water source and ground source systems. Fundamentals of heat pump system design awareness and component selection are covered along with connection to collector loops and the fundamental requirements of collector loop design and installation.

2399-32 Level 3 Award in the installation and maintenance of Heat Pumps Systems

The 2399-32 module covers the installation, commissioning and handover of heat pump systems (non-refrigerant circuits).

The course offers a solid base in environmental technologies and experience of installing heat pump technology, the qualification is recognised by the MCS accreditation in heat pump installation.

The course is suited to qualified installers with one of the following prerequisites:

- N/SVQ Level 2/3 in Plumbing
- N/SVQ Level 2/3 in Heating and Ventilating (Domestic Installation)
- N/SVQ Level 2/3 in Heating and Ventilating (Industrial and Commercial Installation)
- N/SVQ Level 2/3 in Oil-Fired Technical Services
- N/SVQ Level 2/3 in Gas Installation and Maintenance
- or equivalent earlier certification that provides evidence of competence of any of the above.

In addition, if not included in the above current certification in relation to:

- Water Regulations/Water Byelaws (WRAS or equivalent)
- Energy Efficiency for Domestic Heating (C&G 6084 or equivalent)

Once the training is complete, candidates are able to design, install and maintain heat pump systems and will be qualified to apply to Stroma Certification for MCS certification. The MCS scheme is accredited under UKAS BS EN 45011:1998

BPEC Unvented Hot Water Systems Certificate

Duration: 1 day
Fee: £225

This certificate is intended for heating engineers, plumbers and other professionals who wish to legally install, service or commission domestic hot water systems in the UK.

The qualification is delivered as a one-day course, preceded by self-study manuals. After undertaking the preparation and attending the course, candidates must successfully complete an open book, multiple choice theory examination and practical fault finding session before the certificate is issued.

BPEC Heat Pump Installer Training

Duration: 2 days
Cost: £425

The BPEC Heat Pump Installer course is aimed at providing installers with knowledge of how to correctly install heat pumps, both air and ground source.

This course covers:

- Introduction of air source and ground source methodologies
- Installation of collectors
- Design considerations
- Controls
- Maintenance and fault finding.



Domestic Developers Compliance Course

Duration: 1 day

Fee: £275 *All fees exclude VAT

Part L, SAP, Code for Sustainable Homes and Accredited Construction Details ACD Overview

An overview of legislative compliance and product-related scope, detailing how Part L 2010 integrates with SAP 2009 (Standard Assessment Procedure) and ACDs (Accredited Construction Details), NEW for Building Regulation Compliance.

This course aims to give a practical overview to assist developers in achieving compliance with the required building regulations.

The implications of pressure testing within SAP is also covered including a practical demonstration. The course then goes on to the Code for Sustainable Homes and how this can be achieved.

This training course is aimed at general builders, subcontractors, architects, surveyors, local council employees and other individuals wishing to gain understanding of compliance.

BPEC Domestic Solar Hot Water Installer Training

Duration: 2 days

Fee: £375

The BPEC domestic solar hot water installer course is aimed at those with practical experience in the plumbing/conventional heating engineering industry and a recognised qualification such as the BPEC Unvented Hot Water Systems Certificate or a Level 3 NVQ in plumbing or heating engineering. It is also open to those currently working towards one of these qualifications.

Upon completion, candidates have both the practical skills and knowledge to provide a full solar hot water installation and consultancy service. The training is delivered as a two-day course which combines both practical and classroom-based theory elements; candidates learn about the selection, design, installation and maintenance of domestic solar hot water systems. Practical sessions take place on purpose-built roof rigs and include live demonstrations of solar equipment.

Candidates without the formal qualification – which is a mandatory prerequisite – must attend an additional day.

BPEC Part P Electrics (Full Scope)

Duration: 6 days

Suitable for Plumbers, heating engineers, future solar PV installers

Certification: BPEC Certification

Fee: £895 plus VAT

Assessment Method: Online multiple choice

- Part P Full Scope Electrics
- Required to join a competent persons scheme for Part P
- Also allows access to solar PV courses
- Small training Group (max eight).

Course Overview

- Basic electrical principals and theory
- Legislation and regulations
- Domestic installations
- Testing and documentation
- Best practice
- Special locations.

The Part P and 17th edition wiring regulations qualification offers the installer membership of an electrical competent person's scheme for Part P. Aimed at existing tradespersons the BPEC Part P qualification allows full scope electrical work in domestic dwellings, such as adding new circuits, central heating wiring and changing a consumer unit.



BPEC Domestic Ventilation Including Heat Recovery Systems

Duration: 2 days

Suitable for Heating and ventilation engineers, builders

Certification: BPEC Certification

Fee: £375 plus VAT (includes manual and certification fees)

Assessment Method: Written assessments

- Covers the common types of domestic ventilation systems in use
- Heat recovery systems
- Small training groups.

Course Overview

- Background and building regulations
- Domestic ventilation in context
- Airflow requirements and calculations
- Health and Safety.

Domestic ventilation became 'Notifiable Work' on 1st October 2010 as part of the 2010 revision to Approved Document F of the Building Regulations. This means ventilation provision in new homes must be commissioned by a suitably qualified person.

The course covers the most common systems and configurations that the ventilation installer may confront and this course will ensure the installer is qualified to complete commission and hand over.

The candidate will be able to install any of the common types of domestic ventilation system in the UK safely and efficiently inspect and test any of the common types of domestic ventilation systems in the UK, commission and provide information for any of the common types of domestic ventilation systems.

BPEC Rainwater Harvesting and Greywater Recycling Installer

Duration: 2 days

Suitable for Qualified plumbers, builders, renewables installers, ground workers

Certification: BPEC Certification

Fee: £375 plus VAT (includes manual and certification fees)

Assessment method: Open book examination

- Covers both rainwater harvesting and greywater recycling systems
- Direct and indirect RWHS
- Plumbing experience required
- Manufacturer independent training.

Course Overview

- Water harvesting in context
- Calculating demand
- Health and Safety considerations
- Installation
- Maintaining water quality
- Maintenance and fault finding
- Servicing
- Handover.

The Bpec course covers all the underpinning knowledge and practical demonstration required to install rainwater harvesting and greywater recycling (water re-use).



BPEC Warm Water Underfloor Heating (Installer)

Duration: 2 days

Suitable for Plumbers, heating engineers, heat pump installers, builders

Certification: BPEC Certification

Fee: £375.00 plus VAT

(BPEC Manual and Certification extra £75)

Assessment method: Open book multiple choice assessment

- Practical hands-on UFH training
- Heat loss calculations
- Previous plumbing experience required
- Manufacturer-independent training
- Open book multiple choice examination
- Small training groups.

Course Modules

- Basic principles of warm water underfloor heating (UFH) systems
- Advantages of UFH systems
- Floor systems and finishes associated with UFH systems
- Various UFH system types
- Installation methods
- Servicing and troubleshooting UFH systems.

Summary

This course has been developed by Bpec in association with the Underfloor Heating Manufacturers Association. It is an installation course, therefore principally aimed at those involved in the installation of warm water underfloor heating systems (UFH).

The course is taught in a purpose-built underfloor heating training centre and trainees have access to various types of underfloor systems. The systems are completely operational and designed to show the installation, commissioning and maintenance of UFH in a real setting. It differs from a manufacturer's course in that it is non-product specific and thus offers a wide range of products and independent installation advice. Assessment is by means of an open book multiple choice paper and hands on installation task.

BPEC Water Regulations

Duration: 1 day or 2 hour assessment only

Suitable for Plumbers, renewable engineers requiring water regulations knowledge

Certification: BPEC Certification

(WRAS approved certificate)

Fee: £225.00 plus VAT

Assessment method: Open book multiple choice assessment

- WRAS approved qualification
- Valid in England and Wales
- Open book assessment.

Summary

After successful completion of the course the candidate will be able to apply to their local water company to be an 'approved contractor' for water regulation purposes. This means that they can self-certify their plumbing work.





A Simple And Cost Effective Way To Become MCS Accredited.



Why do I need MCS?

MCS is mandatory in order for you and your customers to benefit from governmental financial incentives available for renewable energy installations, including Feed-in-Tariffs (FIT), and Government Grants through the Renewable Heat Incentive (RHI).

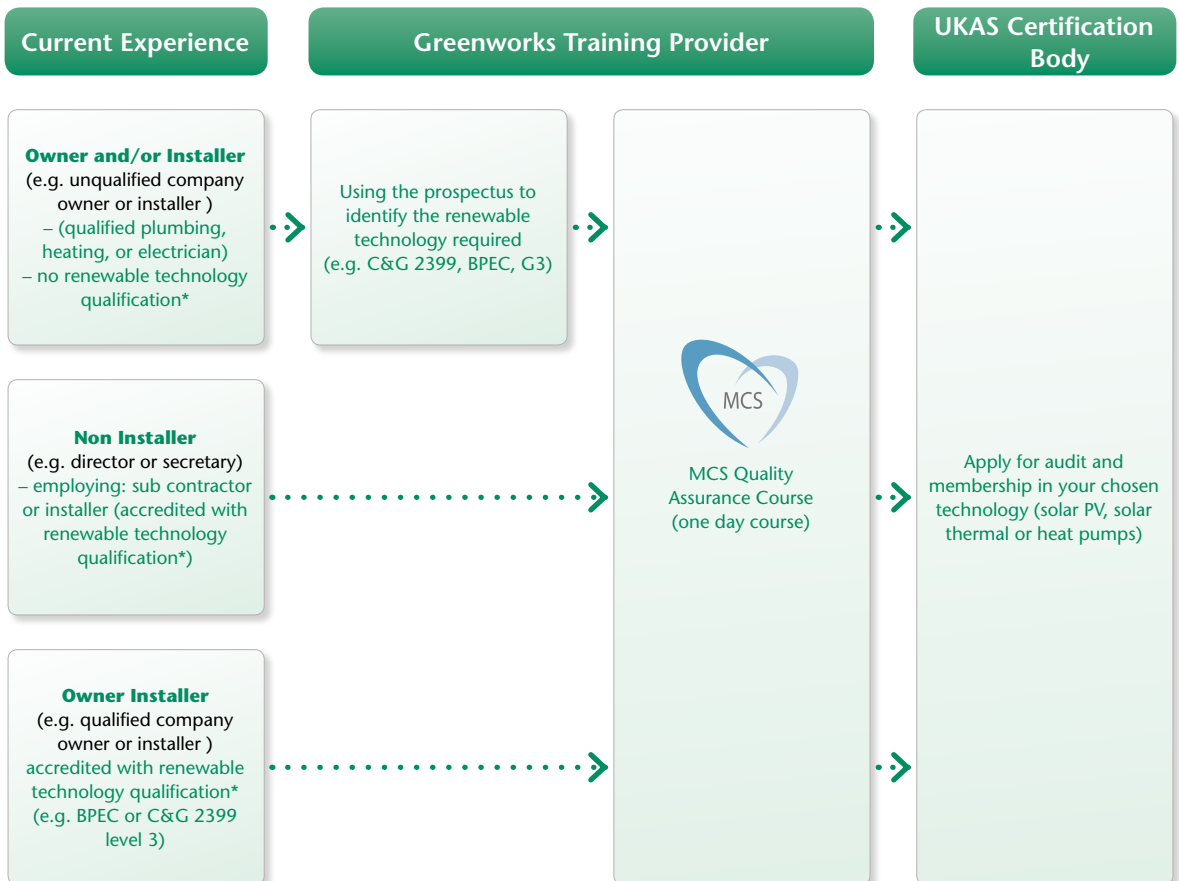
How do I get accreditation?

Stroma is a UKAS-accredited certification body licensed by the Department of Energy and Climate Change (DECC) for the certification of microgeneration installers.

The key technologies that need MCS registrations are:

- Solar thermal
- Ground source heat pumps
- Solar PV
- Air to water heat pumps

Pathway to MCS



Greenworks Microgeneration Certification Scheme (MCS) Training

MCS – Quality Assurance Training and Manual



Duration: 1 Day

Fee: £399 *All fees exclude VAT

Optional FREE second day, for practical installation demonstrations.

*For the cost of £399, you are welcome to invite another member of your organisation to the theoretical day, i.e. day 1. An optional 2nd day is available free of charge, which offers a practical hands-on approach to PV installation – ideally suited to the installer.

MCS certification is mandatory in order for you and your customers to benefit from governmental financial incentives available for renewable energy installation. Certification is achieved by means of an annual audit of your business and its practices.

This course covers how to become an MCS-certified installer, including Quality Manual System (QMS) preparation required to meet the set criteria for joining an MCS certification body. It also covers details on the Feed-in-Tariff (FIT) and Renewable Heat Incentive (RHI) alongside renewable technology awareness and legislative drivers.

About this course

The Microgeneration Certification Scheme (MCS) offers installers access to grants for installing a variety of renewable energy technologies including:

- Solar thermal hot water
- Solar photovoltaic
- Ground source heat pumps
- Air source heat pumps

In order to join the scheme, the installer is required to operate a comprehensive quality assurance system. This course provides, not only quality assurance training, but a complete MCS-compatible quality assurance system covering the major technologies. This course gives a step-by-step guide to attaining the MCS standard. In addition to gaining knowledge of the processes involved in setting up a quality management system, delegates are also supplied with all relevant templates, files and technical specifications needed to comply with the requirements of the MCS scheme.

This course will empower delegates to apply for MCS recognition by providing a full, working, personalised quality assurance system, thus enabling the smaller business to seek approval and subsequently be eligible for grant aid for the installations to be embarked upon.

The Greenworks Training Academy delivers the training to ensure that you are prepared for auditing your business and tradesmen for the easiest route to MCS certification.

The MCS, a recognised quality assurance scheme, for low to zero carbon (LZC) installation and renewable technologies, promotes a mark of competency to demonstrate installations are carried out to the highest standard each time. The certification scheme run by Stroma Certification ensures that all notifications, inspections and installations of the microgeneration technologies; solar PV, solar thermal and heat pumps are produced to consistently high standards – ensuring that members are:

- Competent to undertake inspections and installations
- Qualified to the National Occupation Standard qualification(s) required
- Adequately insured (Professional Indemnity (PI) and Public Liability (PL)) and have obtained Insurance Backed Warranty where appropriate
- Adopting operational procedures maintaining quality assurance (QA) consistency and accuracy of installations
- Fully informed of legislative developments and incentives, undertaking a minimum level of continuing professional development (CPD)
- Maintaining a high standard of operational integrity, whilst undertaking both the on-site and off-site activity associated with the notifiable works
- Recording appropriate details/paperwork for auditing.



The Greenworks Training Academy can provide a bespoke MCS Quality Management System (QMS) tailored to your needs, meeting all the requirements and regulations of the MCS Certification Scheme. What's more, the in-house technical and accreditation support teams can also guide you through the MCS accreditation process whilst you are preparing for your MCS audit.

We can also offer on going support to achieve or maintain your MCS Certification and to maintain your MCS QMS. We can help with any MCS training requirements, and help to prepare for your MCS audit or annual inspection.

We can also provide further on-site or in-house administrative support. This service may suit smaller businesses that want to break into these new technologies, and need face-to-face support to implement the MCS QMS following your Greenworks MCS training. Please see the on-site support charges in the table opposite.

Greenworks Microgeneration Certification Scheme (MCS) Training

The benefits of using Stroma to gain MCS accreditation, following attendance on the Greenworks MCS training course:

Competitive membership (Including OFGEM / GemServ compulsory fee of £110)

- 1 Technology: £465 + VAT
- 2 Technology: £645 + VAT
- 3 Technology: £825 + VAT

FREE Application Fee saving £50

FREE Technical helpline

FREE Software

FREE Initial Site visit for Awarding Certification

FREE access to the Stroma Network Scheme, providing you with customer leads

FREE Company listing on Government website

Additional site visits to give technical support and guidance – half day £200

Additional site visits to give technical support and guidance – full day £340



Assessor courses

The following courses are designed for those who wish to qualify in carrying out energy assessment on both existing and new dwellings and non-dwellings.

The qualifications will lead to membership of the appropriate certification scheme and hence the ability for assessors to lodge EPCs and Code Assessments.

The courses:

New Build Domestic assessment

- Code for Sustainable Homes
- On Construction Energy Assessment (SAP/OCEA)

Existing Domestic Assessment

- Domestic Energy Assessment

New Build and Existing Non-Domestic Building Assessment

- Non-Domestic Energy Assessment Levels 3 and 4

Code for Sustainable Homes Assessor Course

Duration: 3 days
Fee: £995

The Code for Sustainable Homes (CSH) is driving improvement in building practice by providing a comprehensive measure of housing sustainability. The aim of the Code is to limit the environmental impact of new build dwellings, by ensuring real improvements in key areas such as carbon dioxide emissions, waste, water usage and environmental impact. The role of a CSH assessor is to accurately evaluate new build dwellings against a range of criteria in order to generate a Code rating and report.

This three day training course covers the requirements of the CSH in detail, exploring each section of the technical guidance and instructing candidates on how to accurately produce a Code assessment using Core, Stroma Certification's CSH reporting software.

To qualify as an assessor, candidates must pass a multiple-choice examination; qualified assessors are invited to join the Stroma certification scheme that is approved by the Department for Communities and Local Government (CLG), additionally, Stroma Certification Ltd is accredited by the United Kingdom Accreditation Service (UKAS) for the Code for Sustainable Homes scheme under BS EN ISO 17024:2003.

Domestic Energy Assessor (DEA) Training & Certification (Existing dwellings) Level 3 DipDEA

Duration: 3 days
Fee: £750 **Exam Fee:** £290 **Software:** Free

Greenworks Training Academy provides the training and certification required to become a domestic energy assessor (DEA) for existing dwellings.

Housing is responsible for approximately 27%* of the UK's carbon dioxide emissions. Energy Performance Certificates (EPCs) have been introduced as part of the Energy Performance of Buildings Directive (2003) to help improve the energy efficiency of buildings, cut carbon emissions and tackle climate change.

*Source: Energy Saving Trust (2007 figures).

An Energy Performance Certificate (EPC) is required for any existing property, which is sold or let in the UK. An EPC provides a building with an energy performance rating on a scale of 'A' to 'G', with 'A' being the most energy efficient and 'G' being the least. EPCs include a detailed Recommendation Report, which outlines measures, which could be taken to reduce home energy use and carbon dioxide emissions. EPCs can only be produced by qualified, certified domestic energy assessors (DEAs).

Domestic energy assessors (DEAs) collect data about a property including dimensions, construction and services, in order to generate an EPC using approved RdSAP software. The three day City & Guilds Level 3 Diploma in Domestic Energy Assessment (DipDEA) course covers all elements of a DEA's role and includes practical experience of property surveying and producing EPCs using user-friendly RdSAP software, RSAP.

To qualify as an assessor, candidates must attend the training course and sit a multiple choice City & Guilds online examination, which can be taken either at the end of the course or at the candidate's convenience. Additionally, candidates must submit a portfolio including evidence of business skills and five EPCs.



On Construction Energy Assessor (OCEA) Training & Certification (Newly constructed dwellings)

Level 3 DipOCEA

Duration: 3 days
Fee: £1,250 **Exam Fee:** £290 **Software:** Free

The Standard Assessment Procedure (SAP) for Energy Rating of Dwellings is the Government's methodology for calculating the energy performance of dwellings within the UK and is compliant with the requirements of the Energy Performance of Buildings Directive (EPBD).

In accordance with the Building Regulations, SAP energy assessments are produced to demonstrate compliance. In addition, all new homes now require an Energy Performance Certificate (EPC) upon sale or let. Only a qualified, On-Construction Energy Assessor (OCEA) can produce both SAP calculations and EPCs. OCEAs produce calculations that are based on a range of factors, which contribute to the energy efficiency of a building, using approved software (e.g. FSAP).

These factors include: building materials, main and secondary heating systems, heating controls, ventilation and renewable technologies. An OCEA will fully understand these factors within the calculation that will enable them to consult and assist with the design of the development.

This three day training course provides full instruction on how to produce SAP assessments and EPCs. Candidates are guided through the assessment process, from receiving clients' instructions and gathering and inputting the data, to generating the SAP report and lodging the EPC.

The course explores the role of an On-Construction Energy Assessor, along with the related theory and legislation and provides practical, guided workshops which cover:

- Analysing plans, specifications and constructions
- Taking measurements from architectural plans
- Building U-Values
- Basic model building using free Google SketchUp™ software to identify building element areas
- Inputting data into approved software
- Exploring different options and design strategies to improve the energy performance of dwellings
- Producing accurate SAP energy assessment reports and EPCs.

On completion of the training, candidates are required to submit a structured portfolio of evidence (to include five pre-set SAP assessments) and to pass a 30 minute, multiple choice examination set by the awarding body (ABBE) in order to become qualified.

Non-Domestic Energy Assessment (NDEA) Training & Certification

Level 3 DipDEA

Duration: 4 days
Fee: £1,450 **Exam Fee:** £290 **Software:** Free

Level 4 DipDEA

(top-up from Level 3)

Duration: 2 days
Fee: £975 **Exam Fee:** £410 **Software:** Free

Approved Document Part L2A-2006 of the Building Regulations stipulates a full building energy calculation for all newly constructed buildings. The Simplified Building Energy Model (SBEM) software used to perform this calculation is then used to create the EPC, which is required prior to the building being occupied.

Non-Domestic Energy Assessment Level 3 (DipNDEA)

Greenworks offer the City & Guilds Level 3 Diploma as a four-day training course where candidates are taught the practical skills of building surveying and data entry into the approved Government software.

A Level 3 Non-Domestic Energy Assessor (NDEA) can model simple heating, cooling and ventilation systems within existing buildings. After completing the training, candidates sit a multiple choice examination and produce a portfolio of three EPCs and supporting documentation to demonstrate their ability to carry out non-domestic energy assessments.

Non-Domestic Energy Assessment Level 4 (DipNDEA)

For candidates who wish to assess and produce EPCs for buildings containing more complex heating, cooling and ventilation installations in both existing and newly constructed buildings, Greenworks offers the Diploma in NDEA Level 4. The syllabus is offered as a two-day (top-up) course, which builds on the knowledge acquired for the Level 3 Diploma.

Similar to the Level 3 Diploma, candidates will become qualified once they have passed the multiple choice exam and produced the portfolio of three EPCs.







LEARNING GATEWAY

Greenworks is delighted to now offer Saint-Gobain's network of building distribution account holders (Jewson, Graham, Ashworth, Minster and Gibbs & Dandy customer account holders) a whole host of online tutorials to help you build your knowledge of this ever-changing sustainable market.

Get your head around sustainable building with a series of well explained, simple to understand tutorials – each focusing on bite-sized chunks such as insulation, timber, building fabric solutions, renewable technology and more.

This free service will help you understand new legislation, create new market opportunities and help you sell to your customers. Most courses only take 40 minutes to an hour to complete and are spoken to you via your computer – avoiding endless on-screen reading (headphones or speakers will be required). There are over 70 hours of tutorials with more being added all the time.

To access the Learning Gateway...

-  Visit www.greenworks.co.uk with your account number
-  Click on the Greenworks Learning Gateway icon
-  Log on with your details and account number
-  Receive an automatic email containing your password enabling you to access all of the interactive training packages free of charge.





How to book a course

- Call 0121 328 9150, quote your company details and your Account number
- Confirm the course(s) you are interested in and agree availability/timings
- Payment can be made by credit card, bank transfer, cheque or reward points (where applicable). All prices exclude VAT



- Greenworks will send a VAT receipt by post or email (if information provided) within five working days complete with a booking information form that will detail any health and safety equipment you may be required to bring with you.

Cancellations

- Contact Greenworks (0121 328 9150) 24 hours before the course to ensure full refund
- If the course is bespoke 48 hours notice is required to ensure full refund
- Any cancellations after the above quoted time frame will result in a loss of 25%
- Greenworks terms and conditions apply.

Accommodation

We are happy to help arrange overnight accommodation for those undertaking courses at the academy. (**Please Note:** Overnight accommodation is not provided within any of the training costs. All hotel bills are to be settled by the individuals.)

Future courses

As other MCS technologies become relevant with the introduction of the RHI (Renewable Heating Incentive), we will develop additional courses. Check the Greenworks website for details and updates.

Technical and General Enquiries: **0800 077 8965**

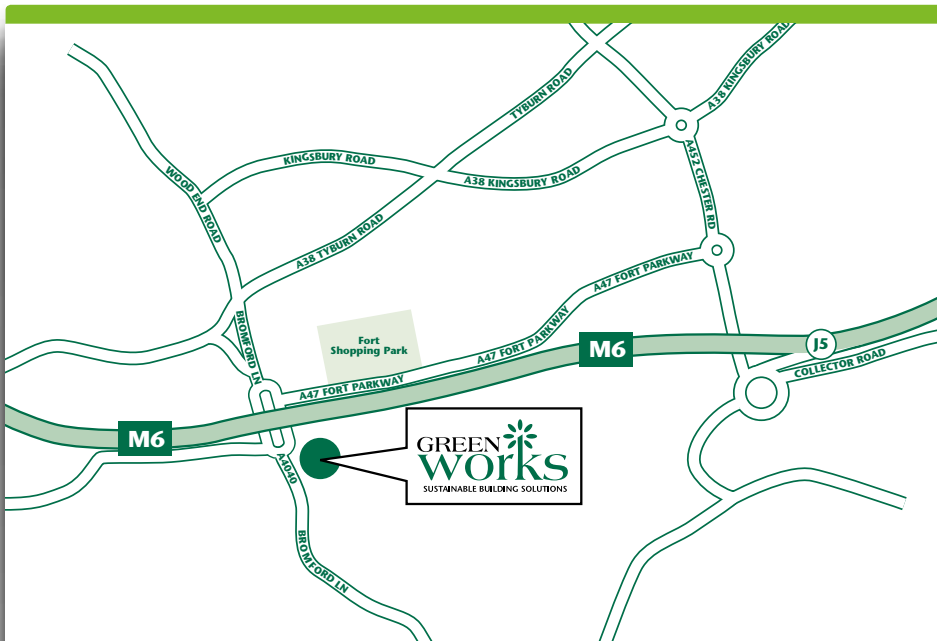
For further information

Email: greenworkstrainingacademy@sghd.co.uk

Reception: **0121 328 9150**

www.greenworks.co.uk

How to find us



Greenworks Training Academy

Unit 1 Bromford Central
Bromford Lane
Birmingham
B8 2SE

Phone: 0121 328 9150

Directions

From the North:

- Leave the M6 at junction 6, then merge onto the A38 (signposted Birmingham North East)
- At Salford Circus roundabout take the 3rd exit, then merge onto the A38 (signposted Lichfield)
- At traffic signals turn right onto the A4040 (signposted Ward End, Stechford)
- At roundabout take the 2nd exit onto the A4040 (signposted Ward End, Stechford)
- You will see the academy on your left.

From the South:

- Leave the M6 at junction 5, then at roundabout take the 3rd exit onto the A452 (signposted Brownhills)
- At Spitfire Island roundabout take the 1st exit onto the A47 (signposted City Centre)
- At roundabout take the 2nd exit onto the A47 (signposted City Centre)
- At roundabout take the 1st exit onto the A47 (signposted City Centre)
- At roundabout take the 1st exit onto the A4040 (signposted Ward End, Stechford)
- You will see the academy on your left.

Don't just take our word for it

Here's what a selection of our customers and partners have to say about the Greenworks Training Academy

"From the moment our team walked through the door at the Greenworks Training Academy, every aspect exceeded our expectations. The course itself was insightful, interesting and well delivered and it was refreshing to work with staff who were so approachable and really went that extra mile to ensure we got everything we needed. Futurebright Solutions is now going through the MCS accreditation audit. We're going to begin by offering a solar PV installation service and, after further training, we'll extend this out to include all other renewable technologies. The investment in the training for myself, my roofers and my electricians was well worth the investment - we couldn't have asked for anything more."

Chris Parkes, Director of Futurebright Solutions Limited

"Greenworks is very informative and provides a good background to all the trade literature that I read. People are becoming more interested in sustainability, so it's important to know what's available. When clients ask me about these issues I need to be able to give them a good answer and visiting the Academy has allowed me to do just that."

Jonathan Sweetland,
Managing Director of Sweetlands

"With rising fuel costs and government legislation, we felt it was important to expand our knowledge of the renewable energy markets and ultimately provide up to date solutions to our customers. The Greenworks Training Academy allowed us to learn about a range of renewable technologies and specifically Solar PV. We completed the MCS training and now, thanks to the Academy's hands on and classroom-based courses, we are able to install Solar PV and allow our customers to take advantage of the Governments Feed-in Tariff."

Ian Logan & Emma Slater,
Ark Construction

"I had a lot of questions about sustainable building, visiting the Academy has certainly helped me to answer them. I'm looking to get into the PV side of things, so to find out all available will help me to develop my business."

Paul Adams of General Builders

The Greenworks Training Academy is invaluable to manufacturers as it is an excellent outlet to showcase our product range and their applications. It is a great venue for seminars and for the training of individuals, with equipment installed or on display with the purpose of giving them a greater understanding of renewable technologies including NIBE heat pumps. Greenworks representatives are extremely knowledgeable in regards to government legislation and incentives such as the Renewable Heat Incentive and Feed-in Tariffs, which along with a broad knowledge of the various renewable technologies and the current market place brings added value to the academy."

Neil Hope, Nibe



Greenworks is a brand of Jewson Limited, registered in England and Wales under Company Registration No. 00348407.
Registered office address: Saint-Gobain House, Binley Business Park, Coventry CV3 2TT.

October 2011 Issue 2 – JSN1363