

Sevenoaks

Energy Academy Ltd

*"Training for a sustainable future"*

# renewable energy prospectus



The Gateway to Suscon is co financed by SEEDA and ESF



## about us

Welcome to **Sevenoaks Energy Academy Ltd.**

We offer specialist training with proven expertise in delivering courses in:

- Plumbing
- Renewable Energy Technology
- Rainwater & Greywater Harvesting
- Energy Efficiency
- Electrical Installation, Inspection & Testing

Our clients range from sole traders to FTSE 100 listed multi national companies who utilise our training facilities for maintaining staff training requirements. We strive to cater for all our customers' needs and endeavour to provide the quality of service that encourages our customers to return to Sevenoaks Energy Academy for further professional development. No matter what the size of your organisation, the training you receive will be market leading. We live by our values and quality of service.

## why train with us?

**Sevenoaks Energy Academy** is a modern, nationally approved training centre with City & Guilds, BPEC, LOGIC, NICEIC and HETAS. It is also one of the most comprehensively equipped renewable energy training facilities in the UK.

The academy has been designed, built and equipped to offer the ideal learning environment for Renewable Energy training.

Advantages of training at Sevenoaks Energy Academy are:

- Training is of the highest standard
- Very low student to trainer ratio (maximum 6:1)
- The highest quality training equipment

Our new, air conditioned classrooms each equipped with teaching screens and ergonomically approved furniture ensure the theory part of your course is delivered with your education and comfort in mind.

Our GOLA (Global Online Assessment) centre has been sound proofed to ensure that when students are undertaking their exams, there is no noise interference from outside.

Vending machines are provided in the canteen area for your convenience.

## renewable technologies training

With the Code for Sustainable Homes and stricter building regulations placing ever increasing demands on builders to move closer to Carbon Neutral buildings and lower mains water consumption, renewable heat generating technologies and Rainwater harvesting and Greywater recycling systems are becoming increasingly important.

These technologies present realistic alternatives to existing traditional heating, cold water and drainage systems and can offer savings in many situations. The Feed in Tariff Scheme for electrical generation which has partly been responsible for a huge uptake in Solar PV and the proposed Renewable Heat Incentive will encourage the take up of these renewable electrical & heat generating technologies.

We offer accredited qualifications through City & Guilds, BPEC, LOGIC, NICEIC and HETAS which will be required in order to become Microgeneration Certification Scheme registered. Although you do not need to belong to an MCS scheme to fit these technologies, without MCS registration your customer will need building control approval prior to fitting and will not be entitled to the Feed in Tariff Scheme or Renewable Heat Incentive. This market sector has an estimated 75% growth rate over the next few years.

# Courses

## BPEC Solar Hot Water Heating Systems 3 Days

This course is accepted by MCS to show evidence of training and is also QCF recognised. Theory in the classroom is matched with hands on practical training in the workshop. Assessment comprises both practical and written tests.

The course covers:

- Overview of Solar Thermal Systems & their components
- System sizing & specification
- Installation of Solar Thermal components
- Commissioning
- Servicing & Maintenance

**Pre-requisites for attending the course are that the candidate holds:**

1. A recognised trade qualification (the minimum level of qualification being the City and Guilds NVQ 3 In plumbing) or has evidence of at least two years of experience of working in the plumbing or heating industry.

**AND**

2. A certificate of competence in the installation of unvented domestic hot water cylinders such as those issued by BPEC, LOGIC & NICEIC.

Other courses which compliment Solar Thermal Hot Water are:

- BPEC Part L Energy Efficiency
- BPEC Heat Pumps Installer
- BPEC Water Regulations
- LOGIC Building Regulations

## H005 - HETAS Biomass 4 Days

Due to the increasing complexity of biomass appliances & heating systems HETAS has introduced a dedicated biomass training course to meet demand from installers. The course covers appliances up to 45kW intentionally but the training may be appropriate for the installation of appliances up to 100kW, including woodburning stoves, log boilers, pellet appliances & chip boilers.

The course is a mix of theory and practical elements. It enables installers to carry out feasibility studies, and to professionally advise the client on fuel type, storage options & system design. It also covers marketing and the various grants available for biomass systems.

Successful completion of the biomass course allows HETAS registrants to extend their registration categories to include installation of wood pellet stoves or other mechanically fed biomass appliances.

The biomass course will also provide evidence of the competence requirements to meet MCS biomass installer.

### Prerequisites

Candidates undertaking the H005 4 day biomass course must have completed HETAS H003 & H004 courses and hold a Part G unvented certificate.

Alternatively one of the following which must include a current Part G unvented qualification;

- OFTEC 101 or 105E qualifications
- Current Gas Safe registration competencies CCN1 & CEN1
- City & Guilds NVQ 6089
- Level 2 & 3 NVQ in Natural Gas & Maintenance (6012) or equivalent
- Verifiable work experience relevant to plumbing & heating with the ability to undertake basic heating design calculations

Please note that those who have not undertaken the H003 and H004 courses may be required to undertake the H005BR course which is an extra day training on regulations and legislation.

## NICEIC Solar Photovoltaic (PV) 3 Days

This Solar PV course is designed for qualified electricians. It provides a certificate of competence for individuals who wish to register on the Microgeneration Certification Scheme (MCS).

The course covers the majority of small scale Solar Photovoltaic systems currently installed in the UK and includes:

- Background to the market and funding
- Microgeneration Certification Scheme (MCS)
- Regulations and standards
- System design
- Installation
- Commissioning and testing
- Servicing and fault finding

The course will not cover areas that form part of the main prerequisites.

### Prerequisites candidate must hold:

A recognised 'Part P' competence e.g. DISQ, EAL or equivalent to BS7671:2008\* and NICEIC Health and Safety competence in CoSHH, Manual Handling and Working at Height\*\*

\* Acceptable qualifications include:

- City & Guilds 2382-10 (17th Edition - BS7671)
- DISQ (Domestic Installer Scheme Qualification) Awarded 01/01/09 or after.
- City & Guilds 2382-20 (Upgrade to 17th Edition - BS 7671 from previous editions)
- City & Guilds 2330 (Parts 1, 2, & 3) - Awarded 1st Jan 2009 or after
- City & Guilds 2350 (All Modules) - Awarded 1st Jan 2009 or after
- SCOTVEC National Certificate in Electrical Installation - Awarded 1st Jan 2009 or after
- NVQ/SVQ Level 3 in Electrical Installation Work - Awarded 1st Jan 2009 or after
- EAL Level 2 VRQ Certificate for Domestic Electrical Installers 17th Edition (9 Modules)
- EAL Level 3 VRQ - 17th Edition, Diploma in Requirements for Electrical Installations BS7671

\*\* NICEIC Health & Safety included in course fee.

## BPEC Solar PV Installer 3 Days

This course is designed to provide practising electrical installers with the skills and knowledge required to enable them to select the most appropriate solar PV system for a building based on consultation with the client about their needs and demands and to install some of the common types of PV systems in a safe and workmanlike manner. It also provides training in the maintenance and servicing of PV systems.

This qualification has been developed to meet the requirements of the National Occupational Standards. The BPEC Solar PV course and certificate are recognised by all the current Microgeneration Certification Schemes as meeting the requirement for appropriate training in the PV technology. Successful completion of the training and assessment will provide training evidence for suitably qualified individuals to include with their application for registration on a Microgeneration Certification Scheme that allow self-certification and notification to Building Control Departments of work completed.

### Prerequisites

Candidates must hold:

- BS 7671: 2008 Requirements for Electrical Installations (17th Edition) qualification such as City & Guilds 2382.

Candidates must also hold:

- A formal craft qualification e.g. NVQ 3 in Electrical Installation (Buildings and Structures) or equivalent earlier certification that includes Inspection & Testing
- OR
- Hold a recognised Part P competence certification that includes Inspection & Testing such as the DISQ (Domestic Installer Scheme Qualification)

“Having hands-on experience with the training rigs made me feel more confident”

Oliver Bettsworth



### BPEC Woody Biomass Heating Systems 4 Days

The BPEC Woody Biomass qualification has been designed to comply with the requirements of the Microgeneration Certification Scheme (MCS).

The course includes theory and practical sessions and covers:

- Modern wood heating with different types of domestic wood fuels
- Boilers, fuel preparation, chimneys and control systems
- System design
- Legal requirements for installations
- Safe Installation & Maintenance

#### Prerequisites

Candidates will need to demonstrate:

- A number of years experience in plumbing or conventional heating

or

- Hold a formal qualification such as NVQ level 3 in plumbing or heating engineering
- Prerequisite Hetas heating engineers certificate

### BPEC Rainwater Harvesting & Greywater Recycling 2 Days

Rainwater harvesting can help to reduce the demand for mains water and also provide a buffer for storm water drains. Water that would otherwise be lost can be used instead to flush toilets, water gardens and supply washing machines. Greywater recycling re-cycles bath and shower water and uses it to flush toilets.

The BPEC Rainwater Harvesting & Greywater Recycling course is aimed at existing plumbers, builders and ground works engineers wishing to extend the scope of their activities to Rainwater Harvesting & Greywater Recycling. The course offers a nationally recognised BPEC qualification.

This course covers:

- Different types of Rainwater harvesting & Greywater recycling, storage and point of use systems
- Selecting appropriate Rainwater harvesting & Greywater recycling systems
- Installing the common types of Rainwater harvesting & Greywater recycling systems
- Maintaining and servicing common types of Rainwater harvesting & Greywater recycling systems
- Direct and indirect Rainwater harvesting systems

**Please Note** that the prerequisite for attending the course is that the candidate holds a recognised trade qualification (the minimum level of qualification being the City & Guilds 6129 NVQ3 certificate in plumbing) or has evidence of at least two years of experience of working in the plumbing or heating industry.

We do recommend that candidates have a Water Regulations competency qualification such as that offered by BPEC or LOGIC.

Other courses which compliment the Rainwater Harvesting and Greywater recycling course are:

- BPEC Building Regulations
- BPEC Water Regulations
- BPEC Renewable Energy Awareness



I can now register with the MCS, which will give my customers access to grants”

Victor Solovoy

### BPEC Part L Energy Efficiency 1 Day

Approved by CORGI, the Energy Savings Trust and the Heating and Hot Water Information Council, the BPEC Certification Ltd Energy Efficiency qualification has been developed in order to offer any easily administered alternative to the City & Guilds 6084 Energy Efficiency course.

The content and focus of both the training and assessment have been made appropriate to the requirements of plumbers and gas engineers whilst still aiming to satisfy the requirements for compliance with Approved Document L1.

We are a fully accredited BPEC centre approved to offer this qualification which only takes one day to complete.

The one day course consists of a detailed training session which includes the issue of a comprehensive set of documentation to all candidates. This is followed by a 30 question multiple choice open book assessment.

### NICEIC Health & Safety 1 Day

This is a one day training & assessment course available to anyone requiring more knowledge of how to reduce the risk associated with tasks that encompass the following fields:

- Manual Handling
- Working at Height
- CoSHH (Control of Substances Hazardous to Health)

A nationally recognised NICEIC certificate is issued to the candidate.

This course is a pre-requisite for the NICEIC PV Installer course.



## BPEC Heat Pumps Installer 3 Days

This course is designed to provide installers with the knowledge required to correctly install heat pumps, both Air Source & Ground Source. Practical sessions and theory lectures cover:

### Ground Source Heat Pumps - GSHP

- Introduction to GSHP
- Ground collectors
- Boreholes
- Installation and design considerations
- Mechanical operation (refrigerant cycle)
- GSHP components
- Controls
- Commissioning, maintenance and fault finding

### Air Source Heat Pumps - ASHP

- Introduction to ASHP
- ASHP components
- ASHP Performance
- Sizing ASHP
- Controls
- Applications
- Installation and design considerations
- Commissioning, maintenance and fault finding.

### Pre-requisites for attending the course are that the candidate holds:

1. A recognised trade qualification (the minimum level of qualification being the City & Guilds NVQ3 Plumbing) or has evidence of at least two years of experience of working in the plumbing or heating industry.

### AND

2. 'A certificate of competence in the installation of vented & unvented domestic hot water cylinders such as those issued by BPEC, LOGIC & NICEIC.



### Installers that currently hold the BPEC GSHP qualification.

We offer a half day course accredited by BPEC including training and assessment which will upgrade the BPEC GSHP qualification to the new BPEC Heat Pump Installer qualification. The candidate will have to hold a current BPEC GSHP certificate.

Other courses which compliment Heat Pump Installer course are:

- BPEC Part L - Energy Efficiency for Domestic Heating
- BPEC Building Regulations
- BPEC Water Regulations
- BPEC Underfloor Heating Installation
- BPEC Underfloor Heating Design
- BPEC Solar Hot Water Installer



## BPEC Renewable Energy Awareness 2 Days

This BPEC course is designed to educate and inform those interested in renewable and sustainable energy (heat and electrical) producing technologies. There are no pre-requisites for attending the course.

The course covers:

- Getting started, cost of fuel, climate change and energy efficiency
- Solar thermal water heating
- Domestic scale biomass systems
- Heat pumps
- Wind power
- Photovoltaic systems
- Micro-hydro

The aim of the course is to give a background knowledge of each of these technologies, to explain what each will and will not do and to cover costs, payback periods and grants that may be available. Those wishing to know more after attending this course can progress to either the Full or Defined Scope courses, depending upon their existing skills and qualifications. For example a heating engineer could undertake the full Solar Thermal Hot Water course whilst an architect could undertake the Defined Scope Solar Thermal Hot Water course.

Participants will be tested on their retention of knowledge at the end of the programme and successful candidates will receive a certificate of achievement.

It is expected that the course will provide participants with an understanding of the issues, economics and technologies surrounding the installation of renewable energy systems in a domestic setting, including:

- Identifying which renewable energy option(s) are appropriate in different circumstances
- Explaining which applications can be met by each technology e.g. space heating, power generation, hot water heating
- Understanding the various motivations for using renewable energy
- Being made aware of energy efficiency home improvements and behaviours
- Distinguish between different types of system
- Understanding how systems work and their components
- Knowing where to access grants and the levels available for each technology
- Calculating typical costs (including installation, running costs, savings and payback times)
- Understanding the issues to consider when installing technologies in the domestic market (sizing, storage, grid connection, maintenance)
- Understanding planning and building control issues
- Being made aware of the potential for cost and CO2 savings for these technologies



### BPEC Warm Water Underfloor Heating Installation 2 Days

This training course is designed to provide under floor heating system installers with the skills and knowledge required to correctly install warm water underfloor heating systems. The course has been developed in conjunction with the Underfloor Heating Manufacturers Association (UHMA) the UK trade association for all forms of radiant heating.

The course covers:

- Warm Water Underfloor Heating – Introduction
- About Underfloor Heating
- Operation of under floor heating systems
- Floor Systems and Finishes
- System Controls – electrical and mechanical
- UFH System Components
- Installation Requirements – installing, venting, commissioning and fault finding

**Please note** that the course is aimed at candidates who have a number of years' experience in plumbing or conventional heating engineering and hold a formal qualification at NVQ Level 3 in plumbing or heating engineering. Candidates are expected to have a working knowledge of traditional wet central heating systems.

### BPEC Warm Water Underfloor Heating Design 2 Days

This training course is designed to provide under floor heating system designers with the skills and knowledge required to correctly design warm water underfloor heating systems. The course has been developed in conjunction with the Underfloor Heating Manufacturers Association (UHMA) the UK trade association for all forms of radiant heating.

The course covers:

- Introduction to Warm Water Underfloor Heating
- Principles of Underfloor Heating
- Design Considerations including heat loss calculations
- Floor Systems and Finishes
- Underfloor Heating Systems and Components
- Underfloor Heating System Controls
- Underfloor Heating Design

**Please note** that the course is aimed at candidates who have a number of years' experience in plumbing or conventional heating engineering and hold a formal qualification at NVQ Level 3 in plumbing or heating engineering. Candidates are expected to have a working knowledge of traditional wet central heating systems.

### New training centres opening soon!

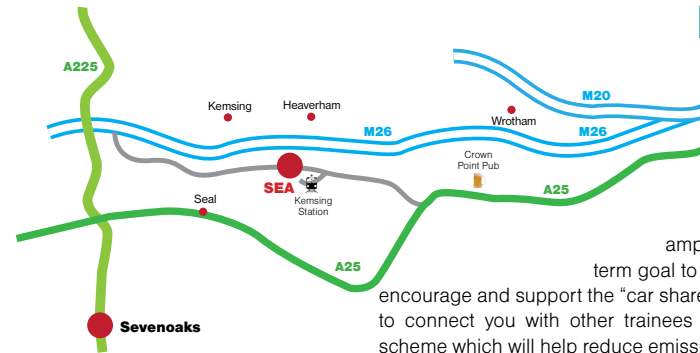


## our trainers

We have a highly qualified and experienced team of trainers at Sevenoaks Energy Academy keen to provide students with the knowledge and skills required to complete their training courses and also to provide them with real world practical skills. Our trainers are qualified to deliver City & Guilds, BPEC, LOGIC, NICEIC and HETAS courses.

### Our team at Sevenoaks Energy Academy have expertise in:

- City & Guilds Plumbing
- Rainwater & Greywater Harvesting
- Solar Thermal (Hot Water)
- Solar PV
- Heat Pumps (Air Source & Ground Source)
- Underfloor Heating
- Lead Working
- Woody Biomass
- Water Regulations
- Building Regulations
- Energy Efficiency
- Legionella Prevention & Water Treatment
- Registered First Aiders on Site
- Health & Safety including Manual Handling, Working at Heights & COSHH
- Electrical Installation, Inspection & Testing



## how to find us

We are conveniently situated a short distance from both the M25 and M20 with Kemsing train station just two minutes walk away. For all trainees arriving by car the academy offers ample parking. As part of our long term goal to help reduce carbon emissions we encourage and support the "car share scheme" and would be delighted to connect you with other trainees who register their interest in the scheme which will help reduce emissions and provide cost savings.



Michael Fallon MP, Julie Walker MD SEA Ltd, and Greg Barker Minister of State for Energy and Climate Change on a recent visit to the Academy in October 2011.



## how to book a course

Our team are on hand to answer any questions you may have regarding the courses and training we offer. Booking a course is simple, please call us now on **01732 760077** to speak to one of our training co-ordinators. We welcome your call and will do our best to ensure your training needs are met.

Payment can be made by debit or credit card, bank transfer or cheque. We can also offer advice about government grants and career development loans which may be available to you.

# 01732 760077



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