



Narec Distributed Energy Training Course, Seminar & Workshop Prospectus



2013

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Renewable Industry Training Specialists at the National Renewable Energy Centre

Narec Distributed Energy provides a comprehensive programme of training courses to address the growing skills gap in the UK for renewable and low carbon technologies. The course range covers technical, financial and legislative issues.



***The Renewable Energy Training Centre at Narec is the
Key to unlocking the skills of the low-carbon economy:
Regionally, Nationally and beyond!***

Train with Industry Professionals

We are committed to providing the renewable energy and low carbon industry with high quality, professional and relevant training to assist in the growth of skills in the United Kingdom to meet the demand of employers and manufacturers. Narec Distributed Energy delivers a diverse range of accredited training products, specialist seminars and bespoke training to a wide range of delegates from all backgrounds.

Narec Distributed Energy

- ✓ *Independent Specialist training provider*
- ✓ *No ties to manufacturers*
- ✓ *Delivery by Industry specialists and high calibre training providers*
- ✓ *Access to specialist training facilities immersed in renewable technologies*
- ✓ *A regional leader in training for the deployment of renewable and low carbon technologies*

Specialist Training Facilities

Narec Distributed Energy offers a dedicated training facility fully equipped with the latest renewable technologies fitted independently of any manufacturer to offer delegates a realistic insight into the installation of renewable technologies.

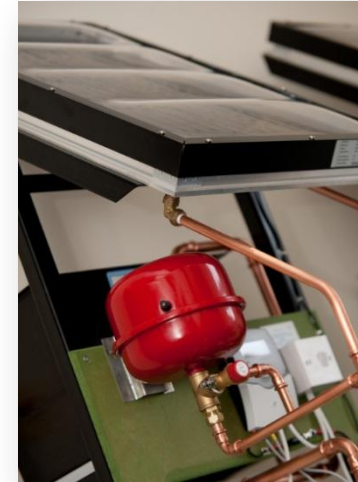
Renewable Technology

Our Training Centre was established to address the skills gap in the market and is presented in the form of a 1900's terraced house situated at the heart of Narec's renewable technology campus. Fitted with a range of renewable technologies, the training centre offers specialist industry training in a realistic working environment, perfectly suited to the adult learner and strategically designed to give learners private access to their own learning facility.



Low Carbon Technologies

Technologies fitted include a photovoltaic array connected to the grid and registered to claim the feed-in tariff, an air source heat pump, a solar thermal system, LED lighting and two electric vehicle charge points (for private use only).



The facility is situated at the heart of Narec's technology park where research and development is conducted into the wider development and deployment of renewable energy.

www.narecde.co.uk

Tel. (01670) 543006 / e-mail training@narecde.co.uk

Accredited Training

Narec Distributed Energy is proud to work closely with nationally recognised awarding and certifying bodies like Logic Certification to deliver a wide range of renewable and low carbon technology qualifications certified to recognised standards.



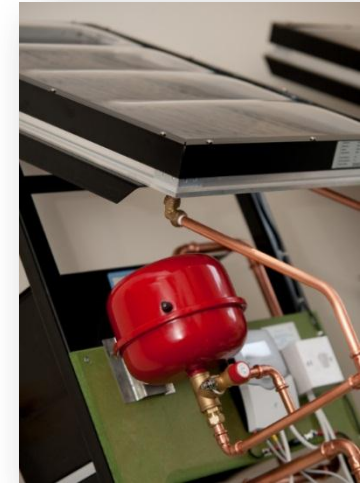
Supporting Training through Recognised Learning

We are committed to the development and deployment of a high quality renewable energy industry within the United Kingdom and as such works closely with a number of widely recognised and accepted organisations.

With a clear target to drive provision of high quality training through an approved network of providers, Narec DE is a lead partner in the North-East Hub for the National Skills Academy for Environmental Technologies (NSAET) and as such, maintains a high level of teaching

and learning throughout its suite of training courses, seminars and bespoke training.

Through the NSAET, Narec DE delivers a strong mixture of training mapped to the National Occupational Standards, supported and complimented by a range of seminars and workshops to wholly support the growth of the industry, both regionally and nationally.



For more information on the role of the National Skills Academy for Environmental Technologies or to become an employer sponsor and member, visit www.nsaet.org.uk



Technology	Course Title	Duration	Cost (exc VAT)	Awarding Body
Introductory	Introduction to Renewable Technologies	1 day	£195	Narec
	Renewable Technologies in the Built Environment	1 day	£195	Narec
Biomass	Biomass Awareness	1 day	£250	Narec
Electrical Connection	G59/2 awareness	1 day	£250	Narec
Photovoltaic (PV)	Solar Photovoltaic System Maintenance	1 day	£195	Narec
	Solar Photovoltaic First Fix Installer Course	1 day	£195	Narec
	DC Commissioning Course	1 day	£195	Narec
	Photovoltaic System Design and Application	3 days	£895	Narec
	Solar Photovoltaic System Installation	3 days	£495	Logic
Solar Thermal	Solar Thermal First Fix Installer Course	1 day	£195	Narec
	Large Scale Solar Thermal System Design	3 days	£895	Narec
	Solar Thermal Hot Water System Installation	3 days	£495	Logic
Heat Pump	Heat Pump Installation	3 days	£495	Logic

Introduction to Renewable Technologies

Course Details	
Duration	1 Day
Accreditation	Narec Certified
Cost	£195 + Vat
Entry Requirements	None
Course Type	Classroom delivery with some demonstrations and a tour
Assessment	Attendance Certificate
Location	Blyth, or employers premises

This basic introduction to renewable technologies course is designed to give delegates an industry overview and understanding of the wider term 'renewable technologies'. Technologies include photovoltaic arrays, solar thermal, wind, biomass and wood fuels as well as an introduction to other technologies. The course also invests time in offering delegates the opportunity to find out more about financial incentives made available through government

grants to support the installation of microrenewables on domestic and small scale commercial facilities.

Subjects covered include:

- Introduction to energy and government policy
- Low carbon heating: Biomass
- The Solar source
- Solar thermal domestic hot water
- Solar photovoltaics
- Wind Energy
- The Feed-in Tariff and Renewable Heat Incentive
- Other Technologies: Hydro and Anaerobic Digestion etc

Target Audience

This course is aimed at, but not exclusively to companies or individuals interested in developing a greater understanding of the financial benefits to be gained from installing small scale renewable technologies that generate electricity or heat. Potential installers of these technologies (including electricians, heating engineers, plumbers, roofing contractors) as well as businesses who are considering deploying the technology in their own premises will also benefit from attending. The general public may also be interested in attending to find out more about what these technologies mean for their region.

Renewable Technologies in the Built Environment

Course Details	
Duration	1 Day
Accreditation	Narec Certified
Cost	£195 + Vat
Entry Requirements	None
Course Type	Classroom delivery with some demonstrations and a tour
Assessment	Attendance Certificate
Location	Blyth, or employers premises

An ever growing interest in renewable technologies in the home and small commercial businesses means that demand for introductory information and worked examples of real local system installations has increased tenfold.

This basic introduction to renewable technologies in the build environment is designed to give delegates an industry overview and understanding of renewable technologies. Technologies covered in

the programme include photovoltaic arrays, solar thermal, Heat Pumps, micro-wind, biomass and wood fuels. The course also invests time in offering delegates the opportunity to find out more about financial incentives made available through government grants to support the installation of microrenewables on domestic and small scale commercial facilities.

Subjects covered include:

- Introduction to energy and government policy
- Low carbon heating: Biomass
- The Solar source
- Solar thermal domestic hot water
- Solar photovoltaics
- Financial Incentives



Solar Photovoltaic System First Fix Installer Course

Course Details	
Duration	1 Day
Accreditation	Narec
Cost	£195 + Vat
Entry Requirements	Must be comfortable working at heights
Course Type	Practical and classroom based
Assessment	Tutor Assessed
Location	Blyth

This one day course is aimed at those who involved with the mechanical fitting of solar panel arrays on domestic and small scale commercial properties and offers delegates, through both classroom and practical activities exposure to the panels, associated bracketry and the necessary tools used in carrying out an installation.

The course offers delegates an insight into the full array installation whilst giving delegates an opportunity to install an array on a scale roof installation from a scaffold.

Although delegates will be given full PPE protection, delegates are asked to provide their own safety footwear.

Topics covered in this one day course are:

- Basic safety and PPE Introduction
- Introduction to the technology and technology history
- Solar module types
- DC Electricity and DC cabling
- Basic functional testing
- Mechanical Installation of system
- Solar resource and basic yield calculation



Solar Photovoltaic System Maintenance

Course Details	
Duration	1 Day
Accreditation	Narec
Cost	£195+Vat
Entry Requirements	Delegates with an electrical background
Course Type	Classroom / Practical
Assessment	Tutor Assessed
Location	Blyth or other venues available on request

As photovoltaics become a more common site around the country, system maintenance has become an essential part in the growing market of the installation market. In addition to the popular Solar Photovoltaic Installer course, Narec is proud to offer this one days course designed to offer practicing electricians and those individuals with a knowledge of electrical systems the additional training to enable them to safely and correctly maintain photovoltaic systems. The Solar Photovoltaic System Maintenance course covers the following topics:

- PV system overview and system terminology
- System components and configuration
- Maintenance considerations including:
- Minimising shading
- Cleaning
- Electrical and mechanical inspection
- Fault finding and troubleshooting
- Planning routine maintenance and inspection
- Performance assessment and system monitoring

Candidate Entry Requirements

Although there are no strict entry criteria to this course, it would be advantageous to have electrical knowledge.



Solar Photovoltaic System Installation



Course Details	
Duration	3 Days
Accreditation	Logic
Cost	£495+Vat
Entry Requirements	Electricians and Electrical Contractors with relevant experience
Course Type	Classroom / Practical
Assessment	Written and Practical Assessment
Location	Blyth or other relevant venues available on request

The purpose of this installer training is to give candidates a qualification which builds upon current electrical knowledge in order to extend their scope to include the installation of solar photovoltaics. This course covers grid connected installations up to 5kWp output and includes a unique tour of Narec's world renowned photovoltaic technology centre where solar cells are designed and tested.

Course Outline

Whilst this course is aimed at practicing electricians, it may also be of benefit to building service engineers, electrical designers, structural engineers, energy solution consultants and architects. The full certificate will only apply to candidates who meet the entry requirements of the awarding body. Delegates must have a working knowledge of domestic electrical installations and be able to design, install, inspect, test, and issue documentation for a single phase circuit.

The course will cover the following topics:

- The fundamental aspects of photovoltaics
- Safety requirements relating to the installation of electrical installations
- Basic electrical components and test instruments used
- Simple AC & DC electrical circuit arrangements
- Electrical regulations (17th edition) and legal requirements of installations
- Installing, commissioning and testing a fully working system
- Backgrounds into market and grant funding routes
- Regulations and standards
- Health and safety considerations
- Cell types and benefits
- External and internal site survey requirements

Assessment

The final assessment for the course is in the form of a written assessment. There is also a practical assessment associated with this certification.



Candidate Entry Requirements

It is essential that the candidate has experience in the design & installation of domestic single phase circuits and issuing the appropriate documentation (electrical installation certificate, schedule of inspections & schedule of test results). It is also essential that the candidate holds a qualification that demonstrates their

knowledge and understanding of BS7671:2008 17th Edition Wiring Regulations and has a sound knowledge and understanding of the Building Regulations.

Typically eligible candidates will be those who hold an Electrotechnical NVQ Level 3 or a Full Scope Part P qualification and 17th Edition Wiring Regulations and have at least 2 years experience.



Photovoltaic System Design and Application

Course Details	
Duration	3 Days
Accreditation	Narec
Cost	£895 + Vat
Entry Requirements	None
Course Type	Lecture with Interaction and some practical
Assessment	None
Location	Blyth, or other on request

This intensive course is aimed at providing system specifiers, planners, architects and other building professionals a detailed and current knowledge of photovoltaic system installations on domestic and small scale commercial properties.

This course has been specifically designed by technical specialists in the photovoltaic field at Narec. It is designed to assist in the knowledge transfer of such professionals to meet the specialist needs of an ever growing industry. Further to this and taking into

consideration the release of financial incentive schemes (such as the Feed-in tariff and the renewable heat incentive) and the cross cutting issues of the Green Deal there has never been a better time to prepare for the opportunities that lie ahead.

Course Outline

This intensive three day course is designed to offer delegates an opportunity to gain an in depth understanding of solar photovoltaic installations whilst broadening their knowledge on many of the planning and installation issues associated with such systems. Small group sizes encourage discussions around technical issues including specific project queries relating to delegate installations.

A wide range of topics covered include:

- PV History and background
- System technology, components and manufacturing
- System positioning and design Issues
- Electrical Installation
- Inverter sizing and selection
- String design and cable sizing
- Shading analysis techniques
- Modelling and simulation software
- Roof Mounting
- Site Issues and Practicalities

- System efficiencies and losses and yield (Including SBEM and SAP)
- Feed-in Tariff
- Cell Manufacture (Including a tour of Narec's world renowned photovoltaic technology centre)
- Access during and after to Narec's leading industry specialists



Assessment

There is no formal assessment attached to this programme however the course is certified by Narec (Subject to the presentation of professional body membership information) and can be used for CPD purposes with most professional bodies.

Candidate Entry Requirements

There are no entry requirements for this course however due to the technical and detailed nature of the programme, Narec would suggest that this course is not suitable for those who wish to learn how to install PV systems. This course is aimed at system designers, specifiers, architects, planners and other building professionals.

DC Commissioning Course

Course Details	
Duration	1 Day
Accreditation	Narec
Cost	£195+Vat
Entry Requirements	Electricians and Electrical Contractors with relevant experience
Course Type	Classroom / Practical
Assessment	Tutor assessed
Location	Blyth or other venues available on request

This course is designed to provide engineers and other construction professionals with the correct DC knowledge and experience to commission grid connected PV systems in line with MCS requirements. The course is aimed at companies who are registered for MCS, but intend to sub-contract AC electrical installation, testing and certification; consequently this is not covered by this course.

This course covers the following topics:

- Solar resource and calculation
- MCS Overview
- DC Electricity, Cabling and functional testing
- Array Earthing and DC test reporting
- Installation checklist
- Inverters and Export meters
- Grid connection according to G83
- Customer handover documents

Candidate Entry Requirements

Although no strict entry requirements exist, candidates must have a sound construction background and underpinning knowledge from the PV Design and Application course, or the PV First Fix Installation course and site experience.



Solar Thermal System First Fix Installer Course

Course Details	
Duration	1 Day
Accreditation	Narec
Cost	£195 + Vat
Entry Requirements	Must be comfortable working at heights
Course Type	Practical and classroom based
Assessment	Tutor Assessed
Location	Blyth

This one day course is aimed at those who involved with the mechanical fitting of solar thermal collectors on domestic and small scale commercial properties and offers delegates, through both classroom and practical activities exposure to the collectors, associated bracketry and necessary tools used in carrying out an installation.

The course offers delegates an insight into the full array installation whilst giving delegates an opportunity to install an array on a scale roof installation from a scaffold.

Although delegates will be given full PPE protection, delegates are asked to provide their own safety footwear. Topics covered in this one day course are:

- Basic safety and PPE Introduction
- Introduction to the technology and technology history
- Collector types
- Basic connection
- Basic functional testing
- Mechanical Installation of system
- Solar resource and basic yield calculation



Solar Thermal Hot Water System Installation



Course Details	
Duration	3 Days
Accreditation	Logic
Cost	£495+Vat
Entry Requirements	Plumbers with relevant certification and experience
Course Type	Classroom / Practical
Assessment	Written exam and Practical
Location	Blyth or other venues available on request

Solar thermal installations have seen a marked increase in the past year and with the introduction of the Renewable Heat Incentive (RHI), these numbers are set to increase dramatically.

The purpose of this installer training is to give candidates an entry level qualification to build upon current heating or plumbing trade knowledge in order to extend their work scope to include the installation of Solar Thermal Domestic Hot Water Systems.

This installer course covers the predominant North European fluid filled, indirect heating systems. The course does not cover all possible variants of this subject and in many cases the support and guidance of the manufacturer would be required upon fitting the equipment.

The course covers the following main types of system collector types:

- Fully filled sealed systems
- Drain back systems
- Flat plate collector
- Evacuated tube collector
- Direct flow evacuated tube collector



Course Outline

Whilst this course is aimed at practicing heating or plumbing operatives, it may also be of benefit to building service engineers, designers, structural engineers, energy solution consultants and architects. The full qualification will only apply to candidates who meet the requirements of the awarding bodies accreditation scheme.

The course will cover the following topics:

- Market insight and background
- Regulations and Standards
- Solar heated storage types (storage cylinders)
- Solar primary system types
- Basic system design and integration
- External and Internal site survey, Installation methods and materials
- Filling and commissioning

Note this course does not include roof work in detail but does cover the legislative requirements and working at height requirements. See our additional 1 day course to accommodate the required skills for mounting the panel.



Assessment

The final assessment for the course is in the form of a written assessment. There is also a practical assessment associated with this certification.

Candidate Entry Requirements

It is essential that the candidate is experienced in the installation of domestic hot and cold water systems and will hold a G3 certificate in Unvented Hot Water Systems. It is also essential that the trainee holds one recognised competency in a conventional fuels i.e. gas, oil, or solid fuel: or for those in the plumbing field with and NVQ 2 or equivalent and/or experience. Experience in basic electrical practice would also be desirable. A basic knowledge of the water (fittings) regulations is also desirable.



Large Scale Solar Thermal System Design

Course Details	
Duration	3 Day
Accreditation	Narec
Cost	£895+Vat
Entry Requirements	None
Course Type	Classroom delivery with some demonstrations and a tour
Assessment Location	Tutor Assessed Blyth

This course has been specifically designed by Narec's technical specialists to offer delegates wishing to design or be involved with the design of large scale solar thermal systems. This three day intensive training programme covers all elements of a large solar thermal system from pipe and pump sizing, hot water load assessment through to energy monitoring and display options and the RHI.



Course Outline

This intensive three day course is designed to offer delegates the tools that they need to design large solar thermal systems for a variety of buildings or to evaluate the designs of others with confidence. Small group sizes encourage lively discussions around technical issues including specific project queries relating to delegate installations.

A wide range of topics covered include:

- The solar resource and roof mounting methods
- Solar primary components, technology and typical layout
- Temperature and pressure ratings, solar collector types
- Pump and pipework dimensioning

- Collector field design
- Heat load estimation and simulation
- Storage types
- Regulations and Standards
- Legionella risk assessment and control strategies
- Introduction to fluids and thermodynamics
- Control, display, heat meter and remote monitoring technology
- System commissioning
- Fault finding diagnostics and maintenance issues
- System handover and documentation
- Simulation Tools
- Financial appraisal, DCF analysis and RHI

Assessment

There is no formal assessment attached to this programme however the course is certified by Narec (Subject to the presentation of professional body membership information) and can be used for CPD purposes with most professional bodies.

Target Audience

This course is aimed at, but not exclusively to companies or individuals wishing to design large scale solar thermal systems.



Heat Pump Installation



Course Details

Duration	3 Days
Accreditation	Logic
Cost	£495+Vat
Entry Requirements	Plumbers with relevant certification and experience
Course Type	Classroom / Practical
Assessment	Written and Practical Assessment
Location	Blyth or other venues available on request

With fuel prices rocketing, rising CO₂ levels and energy supply becoming ever more critical, one technology that is sure to make a positive impact in this country is Heat Pumps. Whether ground source or air source, heat pumps are set to become a major contributor to reducing the amount of CO₂ emitted by the UK when producing heat in the domestic and commercial sector. Most major heating manufacturers are now either actively selling or about to bring heat pumps to the market.

The purpose of this installer training is to give candidates an entry level qualification to build upon current heating or plumbing trade knowledge in order to extend their work scope to include the installation of heat pumps.



Course Outline

Whilst this course is aimed at practicing heating or plumbing operatives, it may also be of benefit to building service engineers, designers, structural engineers, energy solution consultants and architects. The full qualification will only apply to candidates who meet the requirements of the awarding body's accreditation scheme.

The course will cover the following topics:

- Market insight and background
- Regulations and Guidance
- Principles of heat pump operation
- Collector types
- Heat distribution
- Pre-installation requirements and design guidance
- Insulation materials and methods
- Filling, flushing and testing
- Setting to work and commissioning
- Servicing and fault finding

Please note that this course does not include bore hole drilling or significant ground work, use of heavy plant and equipment or handling of refrigerants. Units covered in this course are pre-charged sealed units and do not require the refrigerant circuits to be broken.

Assessment

The final assessment for the course is in the form of an on-line assessment. There is also a practical assessment associated with this certification.

Candidate Entry Requirements

It will be essential that the candidate will be able to demonstrate their competencies as a qualified heating or plumbing operative and hold an NVQ 3 or equivalent in Plumbing and heating and/or experience. Experience of basic electrical practice would also be a desirable. A basic knowledge of the WRAS Water (fittings) Regulations is also desirable.



G59/2 Connecting Large Scale Embedded Generators

Course Details	
Duration	1 Day
Accreditation	Narec
Cost	£250+Vat
Entry Requirements	Electricians and Electrical Contractors with relevant experience
Course Type	Classroom
Assessment	Tutor assessed
Location	Blyth or other venues available on request

This 1 day course covers the connection of large scale embedded generators to the distribution network. It is suitable for contractors installing solar PV systems and small wind turbines up to around 100kW.

The course will cover the following topics:

- Introduction to the UK electrical power distribution system
- Role of the District Network Operators (DNOs)
- Network issues caused by embedded generation
- Scope of G83/1 Stage 1 and 2
- Applicability of G59/2
- Technical requirements of G59/2
- Connection application process
- Witness testing requirements
- DNO Case Studies (where available)

Candidate Entry Requirements

Although no strict entry requirements exist, electrical background is recommended.



Biomass Awareness

Course Details

Duration	1 Day
Accreditation	Narec
Cost	£250+Vat
Entry Requirements	None
Course Type	Classroom
Assessment	Tutor assessed
Location	Blyth or other venues available on request

This 1 day course covers provides an introduction to Biomass Heating technology and to the sustainable fuel options including harvesting and logistics.

Candidate Entry Requirements and Target Audience

No entry requirements. The course is aimed at interested individuals or those who will be specifying or selling systems as it will offer sound technical knowledge for the building requirements for a Biomass system.

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The course will cover the following topics:

- Biomass Technology Introduction
- Benefits of Biomass
- Where Biomass Heating is suitable
- Biomass systems case studies
- Fuel Types Supply
- Building regulations in relation to Biomass installations
- Fuel storage requirements
- Biomass RHI applications



www.narecde.co.uk

Tel. (01670) 543006 / e-mail training@narecde.co.uk

Narec Distributed Energy Seminar and Workshop Provision

Course Title	Duration	Cost (exc VAT)
MCS Workshop	½ Day Seminar	£125
MCS Coaching	Varied (Up to 5 days)	Cost on request
The Green Deal	½ Day Seminar	£95
The Renewable Heat Incentive	½ Day Seminar	£95
Financial Incentives for Renewable Energy Installations	1 Day	£195
Renewable Technologies in the Built Environment	1 Day	£195



MCS Workshop

MCS application processes and timescales can vary depending on the size and complexity of an organisation but key principles and standards are present throughout. This half day workshop enables individuals and companies to gain a clear insight into the MCS process from an industry specialist with a current background in MCS assessments. The session will cover topics such as certification bodies, MCS history and background, MCS technologies, Back office systems and processes and next steps.

Target Audience

This course is designed to assist individuals and companies who are interested in becoming registered with MCS but would like some clarification of the processes and certification process. This workshop is designed to offer clients an opportunity to discuss issues and barriers with each other and industry leading specialists in order to pave a way forward to gaining their own accreditation.

Course Outline

This workshop is delivered over the course of a morning and offers information:

- Key proposals laid out by the government
- Why does MCS exist and what are its key features
- The MCS Assessment Criteria and Methods
- MCS Assessment
- MCS Standards
- Quality Management Systems
- MCS Quality Plan



MCS Coaching

MCS application processes and timescales can vary depending on the size and complexity of an organisation. The key to a successful MCS application is to integrate the requirements with your existing management system. Many organisations have well developed management systems that meet the requirements of ISO9001:2000 and there are a number of parallels between MCS and ISO that can be exploited. The key is using an expert eye to capture and utilise the parallels: A service readily available at Narec Distributed Energy and a service heavily utilised by organisations such as local authorities and housing associations.

In large enterprise organisations, it can be very difficult and time consuming to make changes to a current management system and it is common for divisional managers to attempt to avoid this by creating a 'bolt on' to current systems which is an approach which Narec Distributed Energy would strongly advise against.

Narec Distributed Energy's specialists can spend time with key staff within the organisations to carry out an audit to understand current systems and practices, and work closely with them to develop a management system which would be fit for purpose when applying for MCS, and carrying out a coaching session with key staff to ensure everything is in place correctly. Narec

Distributed Energy also carry-out a pre-assessment check prior to an MCS visit.

Coaching Format

Narec Distributed Energy aims to have companies ready for approval within six weeks and work with the company to work towards MCS audit within six weeks as follows:

- Understanding the requirements of the process and determining how to integrate with existing system (1-2 weeks)
- Amend existing management system documentation (2-3 weeks)
- Training needs analysis of existing staff i.e. identifying relevant staff to up-skill and train in line with the programme (3 days per individual)
- Complete an initial installation on a low risk building (e.g. one from existing building and housing stock) (2-3 days)
- Pre-audit checking (1 Week)

The Renewable Heat Incentive

Increasing renewable heat is the key to the UK meeting its renewable energy targets, reducing carbon emissions, ensuring energy security and helping to build a low carbon economy. The Renewable Heat Incentive (RHI) will help accelerate deployment by providing a financial incentive to install renewable heating in place of fossil fuels.

This breakfast seminar offers delegates an opportunity to gain the latest information with regards to the RHI, and an insight into the most recent and relevant information available to the consumer. Delivered by industry specialists, this seminar also offers the opportunity for delegates to participate in an open forum discussion, enabling them to share their own views and dealings with the RHI so far.

Target Audience

This course is ideal for anyone interested in developing a greater understanding of the financial benefits associated with the RHI either for their own information or the benefit of their own clients. This is a general seminar and may be of interest to a wide range of individuals and companies.



Course Outline

This course is delivered over the course of a morning and investigates information on:

- Key proposals laid out by the government
- Financial support available for residential and commercial installations
- Technologies supported by the RHI
- Tariffs levels and eligibility
- Investment and returns
- System design and scheme registration
- Latest updates and changes
- Open discussion and questioning

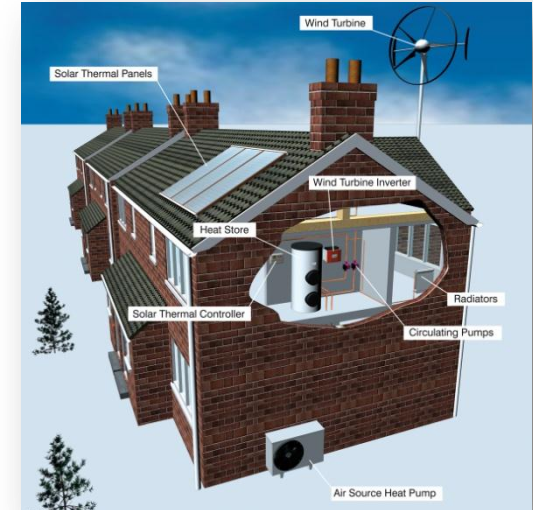
The Green Deal

The Green Deal is the governments flagship energy saving plan to transform the country's homes to make them warmer and cheaper to run. The launch of the Green Deal offers domestic consumers the opportunity to access up to £10,000 upfront, for energy efficiency work, repaying costs through savings achieved on energy bills. Similar support will be available for businesses and extra help is included for vulnerable people or those living in homes which need more work than Green Deal finance alone will stretch to.

This seminar is designed to offer delegates the most up to date information around the Green Deal, allowing them an opportunity to explore the information currently available around the Green



Deal whilst also visiting other financial incentives currently available such as the Feed-In Tariffs and Renewable Heat Incentive. Guest speakers from partner organisations will offer the most up to date information on The Green Deal and workshops will invite people to offer their own opinion on how the green deal will work.



Target Audience

This course is ideal for anyone interested in developing a greater understanding of the financial benefits to be gained from installing small to medium scale renewable technologies in their own properties, as well as to learn more about the vehicles in which to gain finance through government initiatives to support the growth of such installations. Workshops will vary but register your interest in this event at training@narecde.co.uk.

Financial Incentives for Renewable Energy Installations

The 'Feed-In' Tariff (FIT) and the Renewable Heat Incentive (RHI) scheme have been launched to encourage deployment of additional low carbon electricity and heat generation, particularly by organisations, businesses, communities and individuals who are not traditionally engaged in the generation market. With the planned extension of the RHI and launch in 2013 of the Green Deal scheme there is now many reasons to engage in Energy Efficiency measures. But what is the policy behind the headlines and what are the requirements and implications for the consumer and businesses of these schemes?

Target Audience

This course is ideal for anyone interested in developing a greater understanding of the financial benefits in the energy market.

Course Outline

The course will cover the following topics:

- An explanation of the FIT, RHi and Green Deal process
- Challenges of renewable systems in the built environment

- The Microgeneration Certification (MCS) scheme
- An illustration of how these incentives can work using a variety of case studies
- Advice on best practice of installation



Additional Information

Bespoke Services

Narec is committed to high quality, flexible delivery and has developed a specialist training centre to meet the rising demand of the industry. In addition to this Narec offers a wide portfolio of training modules reaching all levels and across most renewable technologies to enable companies across the country to build their own course based on the unique training needs of their business. Similarly, specialists at Narec are able to develop unique packages to suit the specific needs of employers. Courses can be delivered on site or Narec can source conferencing facilities nationwide through their Network of clients and associates.

Current units include:

- Introduction to Anaerobic Digestion
- Basic Energy Awareness
- BREEAM and SAP
- Your Carbon Footprint
- Energy Champions for the Workplace
- Energy and Climate Change for Management
- Climate Change Impacts and Mitigation

Course Requirements

Seminars and workshops will be delivered in Narec's own conferencing suite or similar such venues. There is no dress code for such training. Any PPE required for site visits will be provided by Narec for the duration of the training.

Practical and Installer courses combine a mixture of classroom work and practical demonstrations. Narec suggests that candidates wear comfortable clothing suitable for practical working.

Where candidates are offered a site tour as part of their training, suitable safety information will be given on the day. All candidates are asked that they wear flat, closed to, sensible footwear whilst visiting site. Narec retains the right to refuse anyone access to the site as they see necessary.

Narec operates a no smoking site. Smoking bins are provided in suitable areas for those who wish to smoke.

Refreshments are readily available for each course, and a buffet lunch will be provided for courses over half a day in duration. A suitable snack will be served for breakfast seminars only.

Course start and finish times vary however delegates will receive a course agenda one week prior to the course commencing.

Client Testimonials:

Narec helps Newcastle City Council to up skill and optimise the low carbon opportunity



Newcastle City Council was the first to utilise Narec's new Training Centre in Blyth, with nine electricians from the Council's City Works division completing a three day solar photovoltaic panel installer

course. This training forms part of the ongoing energy master planning work being undertaken by Narec for Newcastle City Council, which will formulate a sustainable energy action plan and a citywide climate change strategy to deliver regeneration across the city. All nine electricians passed the course which is designed to offer fully qualified electricians the additional knowledge required to allow them to install solar photovoltaic panels in line with the MCS requirements.

"Narec Distributed Energy's knowledge and expertise in delivering energy master planning and training for the built environment is helping the council to drive forward the delivery of low-carbon energy schemes. This co-ordinated activity across the Council, stakeholders and city, helping us to achieve the national and European carbon reduction targets as part of the 2010 EU Covenant of Mayors Agreement."

Simon Johnson, Energy Services Manager,
Newcastle City Council.

Client Testimonials:

“GB Building Solutions have recently used Narec as a training provider for our staff working on an exciting new microgeneration project. We have been delighted with the training provided and now view Narec Distributed Energy as not just our Solar PV training provider, but as a key strategic partner who we intend to work with going forward to assist us with the development requirements of our renewable energy teams”

Tom Koerner,
GB Building Solutions Ltd

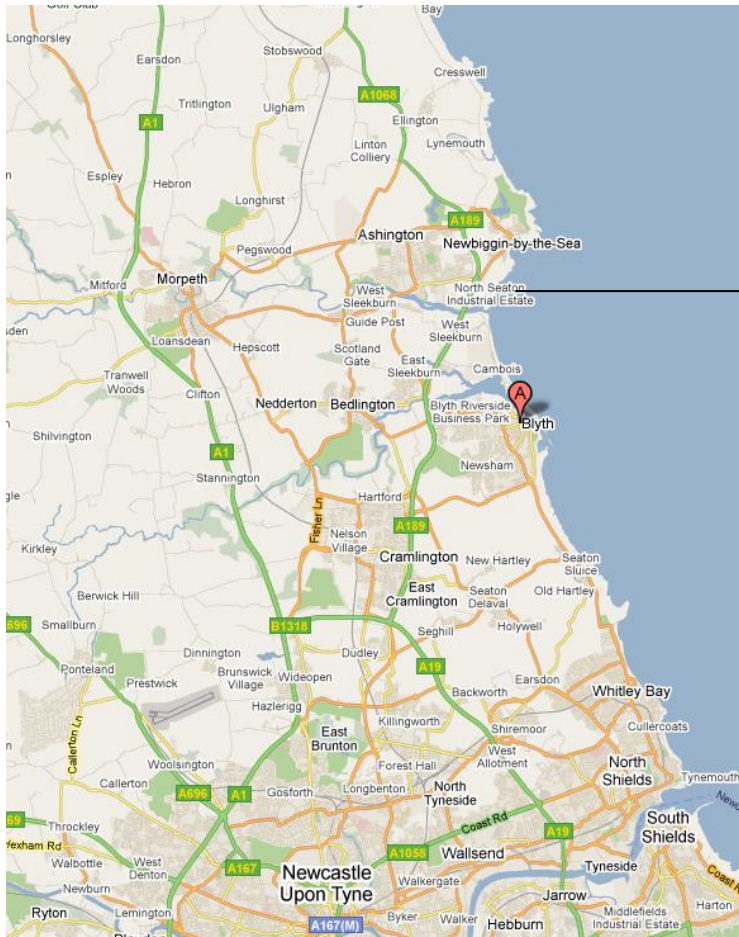
Narec trains GB Building Solutions Staff to assist them in meeting contractual demands

GB Building solutions have recently been successful in winning a £7m contract with Northumberland County Council to fit solar photovoltaic panels to 400 council owned homes and 130 public buildings. As part of this project, Narec have been involved with the provision of training and advice at many levels to support GB in their growth in the sector and to assist in them meeting the demands of their renewable energy contracts. Narec have delivered high level Photovoltaic System specifier training to contract managers as well as a one day solar panel installation course to newly recruited panel installers from a roofing background to ensure that they were able to confidently and competently mechanically fit the panels to the roof of those properties identified under the contract.



Narec Distributed Energy Limited

@ National Renewable Energy Centre at Blyth



By Car: Follow signs to Blyth taking the A1061 junction on the A189 and follow the road straight onto Blyth Quayside

By Bus: X24 and Z11 buses leave the Haymarket bus station in Newcastle every 15 minutes during the day. Journey time approx. 45 minutes

By Rail: Newcastle central station on the East Coast Main Line is 15 miles away. Taxis are available

Main Office

Narec Distributed Energy Limited
National Renewable Energy Centre
Narec Brunel Building
64 Regent Street
Blyth Northumberland
NE24 1LT T: +44 (0)1670 543009

Training House

Narec Distributed Energy Limited
4 Ballast Hill
Blyth
Northumberland
NE24 2AU

About Us

Narec Distributed Energy is part of the UK National Renewable Energy Centre group of companies. We carry out a wide range of work within the renewable and low carbon sector, particularly within the built environment. Through our work we help our customers reduce carbon, alleviate fuel poverty, improve energy security, stimulate economic growth and educate energy users.



We deliver this service in three ways:

1. Strategy

Our strategists assist organisations in developing energy and carbon management plans, identifying funding and revenue streams and assessing the implications of government policy.

2. Engineering

Our engineers provide a wide range of technical and testing services that enable our clients to select the most appropriate energy solutions.

3. Training

Our dedicated training centre offers bespoke and accredited training on a wide range of renewable technologies.

OUR MISSION

To facilitate the deployment of energy efficient, renewable and low carbon technologies in the built environment.

This mission exists to:

- Reduce Carbon
- Alleviate Fuel Poverty
- Improve Energy Security
- Stimulate Economic Growth
- Educate Energy Users

We achieve this by providing a range of strategic, technical, testing and training consultancy services to a range of clients in the public and private sectors.

OUR VALUES

- Independence
- Resilience
- Honesty
- Accountability
- Social responsibility

Narec Distributed Energy Limited

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