

# INTRODUCTION TO RENEWABLE ENERGY – 1-day course

The aim of the course is to give attendees the basic introduction and knowledge to make a fundamental assessment of the suitability of a particular Renewable technology and use that knowledge to be able to investigate it further and dispel some of the common myths.

**Course date**  
**15th April 2010**  
**East Grinstead**

**Objectives: At the end of the course delegates will be able to:**

- i. Define the main aims of sustainability and the need for energy efficiency and conservation.
- ii. Identify the main statutory legislation requiring sustainability and energy efficiency
- iii. What Renewable Technology Systems are all about
- iv. Identify the main types of Renewable Technology energy sources and the basic principles of operation
- v. Recognise the advantages and disadvantages of a particular Renewable Technology energy source
- vi. Make a valued judgement on the suitability of a particular Renewable technology system/s for a given situation
- vii. Recognise when more technical information and or advice is needed

***All courses provided by The National Energy Foundation , iin partnership with the Education and Training Departments of the Electrical Contractors Association (an IET Endorsed Training Provider) and the Heating and Ventilating Contractors' Association.***

The National Energy Foundation, is an independent educational UK charity that works to help people and businesses combat climate change.

# INTRODUCTION TO RENEWABLE ENERGY

## Course Content:

i) **Energy Basics – The Hierarchy of energy applications in sustainability**

ii) **What is Renewable Energy?**

iii) **Why are renewable energy and sustainability so important?**

iv) **Cover the basic form of each of the following technologies**

- Photovoltaics (Solar Generated Electricity)
- Solar Water Heating (Solar Thermal) and Thermal Mass Storage
- Air, Water and Ground Source Heat Pumps
- Biomass and Wood Fuel Heating
- Small and Medium Scale Wind Generators
- Combining Renewable Technologies – Integration and Controls

v) **For each of the above main technologies the following will be covered;**

- Principles of operation
- Energy application (Heat/Electricity/motion etc.)
- Basic design & integration (an overview)
- Site requirements (positioning/head of water/ground conditions etc.)
- Energy effectiveness of each (payback & £'s spent offset against carbon output)
- Relative efficiencies of each (if a client is determined to install a

renewable technology which will be best for a given situation) - The Hierarchy of energy applications in sustainability

- Planning, Competent Persons Schemes, Grants and Financial Support

vi) **Case studies to demonstrate, for each of the above, the benefits and drawbacks for each system**

vii) **Summary of most effective systems, Q+A**

viii) **Knowledge based assessment (MCOQ)**

### Onward

Progression: Courses specific to each technology, linking with some of the UK's leading trainers & manufacturers in each field.

### Summary:

Candidates should at the end of the day feel confident to be able to start thinking about installing/specifying a particular technology and be able to discuss the project with renewable technology manufacturers/suppliers without fear of being railroaded to a technology, which may not be wholly appropriate.

## Delegate rate

ECA/HVCA /NEF members

£125 + VAT@17.5% = £146.88

Non-members:

£187 + VAT@17.5% = £219.73

## M&E Education and Training

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ECA AND HVCA WORKING TOGETHER





Course: **INTRODUCTION TO RENEWABLE ENERGY – 1-day course**  
Code: **T38-007**  
Date: **15 April 2010**  
Venue: **East Grinstead**

Send to:  
**Course Co-Ordinator**  
**ECA Education and Training,**  
Short Courses, Camden House,  
Dudley Road, Off Dudley Road,  
Yarm Road Business Park,  
Darlington, Co. Durham, DL1 4GG

**DELEGATE NAME**

Mr/Ms/Dr/Other Forename(s)  Surname

**COMPANY DETAILS**

Mr/Ms/Dr/Other Forename(s)  Surname

Job Title  Organisation

Mailing Address

Country Postcode

Telephone  Fax  e-mail

**Please complete where applicable:**

(please tick appropriate box):

- I am/ my employer is a member of the Heating & Ventilating Contractors Association (HVCA)  
HVCA membership No .....
- I am/ my employer is a member of the Electrical Contractors Association (ECA)  
ECA membership No .....
- I am/ my employer is a member of the National Energy Foundation  
(NEF membership No).....
- I am not a member of any of the partner organisations and therefore pay the non-member's  
rate for the course

Full payment must be received before a place can be guaranteed. Under UK Excise Regulations, delegates from all countries are required to pay VAT on any course taking place in the UK. The total amount may be paid by (please tick appropriate payment box):

Sterling Cheque or Draft drawn on a bank in the UK. I enclose my remittance, made payable to the Electrical Contractors Association. for the sum of £  See overleaf for BACS payment information

Visa / MasterCard/Euro Card/Diners Club (please circle).

card no

expiry date  valid from  Switch/Maestro/Solo/Delta issue no

3 digit security code  This will be deleted upon authorisation

Authorised code (ECA use only)  Name of cardholder

Full address of cardholder (if different from above)

Signature  Date

## TERMS AND CONDITIONS

### IMPORTANT INFORMATION FOR DELEGATES AND EMPLOYERS

#### 1. How do I pay?

By cheque/postal order. A single cheque/postal order should accompany each booking. Corporate or block bookings for multiple delegates should be accompanied by a single company cheque covering all delegates. Cheques should be made payable to The Electrical Contractors' Association

BACS payments are available for corporate clients only. A BACS remittance advice or similar should accompany each application form

Bank details. National Westminster Bank Plc  
Sort Code: 60-40-04. Account name: The Electrical Contractors' Association. Account number: 10889000

Cleared payment must be received four weeks prior to the start of the course. M&E Education and Training reserves the right to re-allocate course places if fees are not paid on time

In the event of late payment, M&E Education and Training reserves the right to charge interest on all outstanding amounts

**Bookings will not be processed until cleared payment has been received. M&E Education and Training reserves the right to pursue its legal options in the case of default on payment, and to recover reasonable administration costs**

#### 2. What do the course fees include?

Joining instructions and directions to the venue will be dispatched approximately seven days prior to the course start date

Course materials will be provided on the first day of the course

Where applicable, a short end-of-course assessment will be undertaken and a certificate provided on its successful completion. Failure to satisfy the assessment criteria will result in the issue of an attendance-only certificate

External certification fees for awarding bodies and other providers (eg, City & Guilds and IOSH) will be charged at cost, in addition to course fees, and are not refundable

#### 3. What is expected of me?

It is the delegate's responsibility to ensure that the training course is suitable for his/her purpose. The trainer has the right to refuse entry to any delegate who fails to arrive at the correct venue, or on the correct date or time, or who in their opinion is unfit to take the course,

or whose conduct or behaviour is disruptive.

The decision of the trainer on the suitability of a delegate to complete the course shall be final and binding.

#### 4. What happens if I don't turn up?

Any delegate who fails to arrive at the correct venue, or on the correct date and time, will be deemed to have cancelled. Fees already paid will not be refunded and no alternative course dates will be offered

#### 5. Can I rearrange or cancel a booking?

There will be no charge for substituting delegates for the scheduled course by prior arrangement

Cancellations made four weeks (or more) prior to the course start date will attract no penalty, and 100% of course fees will be refunded

Cancellations made between two and four weeks prior to the course start date will attract a refund of 50% of course fees

Cancellations made within two weeks of the course start date will attract no refund

#### 5. What happens if the course is cancelled?

M&E Education and Training reserves the right to:

- (a) alter course content without prior notice;
- (b) alter or cancel published dates, and change venues or lecturers without liability;
- (c) cancel a course at any time without liability – in which circumstances, delegates will be offered an alternative date or a full refund

**The liability of M&E Education and Training, the Electrical Contractors Association (ECA) and the Heating and Ventilating Contractors' Association (HVCA) for any expense, loss, cost or damage of any kind whatsoever whether direct, indirect or consequential (apart from personal injury or death) arising out of any action or proceedings relating to any services or equipment provided in accordance with the course shall be limited to the total amount of fees charged in respect of the course**

**M&E Education and Training, the ECA and the HVCA are unable to offer refunds for cancellations arising from events that lie outside their control. These include adverse weather conditions, flooding and industrial action**