

HHP Master Class – RE:Generation

Renewable Energy Generation: Viability, Finance and Implementation



Introduction

The aim of this one day Master Class is to help attendees deliver their renewable energy projects. This Master Class is based on practical experience of assessing, financing and implementing renewables. It draws on Hockerton Housing Project's (HHP's) recent experience of project managing a community-owned wind turbine in Hockerton; a Vestas' 225kW machine. Lessons will also be shared from the smaller-scale private network at HHP itself, fed by two smaller wind turbines, a PV array and the grid. The day's presenters have experience and in-depth knowledge of revenue generation, successful grant applications, equipment selection, commissioning and supporting communities through complex processes.

HHP has worked closely with Sustainable Hockerton Limited (SHL) the owners of the Vestas machine in Hockerton Parish. Representatives of SHL will be present on the day.

The Master class is held at HHP in Nottinghamshire, one of the most energy and resource efficient developments in Europe.

Background to HHP

HHP is an innovative residential sustainable development in the village of Hockerton near Southwell, Nottinghamshire. The HHP group set up an advisory service HHP Trading Limited to help people to achieve **zero carbon residential systems**, reducing life cycle energy to a minimum.

Since completion in 1998 Hockerton Housing Project has installed various renewable energy systems on site including a Proven 6kW wind turbine, an Evance ISKRA 5kW wind turbine, a 7.65kWp PV array, a Solar thermal system, five air to water heat pumps and managed the village's Vestas V29 225kW turbine installation. These systems provide a unique 'real-life' experience of renewables for visitors.

To find out more about HHP or SHL, please visit their websites at www.hockertonhousingproject.org.uk or <http://www.sustainablehockerton.org/> (Press Ctrl and click to make link)

Who will benefit?

This event will be of particular interest to individuals, small groups, businesses and communities wishing to install renewable energy technologies from the very small scale to the larger community or privately owned systems. Academics will find the real life experience we can offer an invaluable resource in teaching students about renewables.

Why you should attend:

You will have the opportunity to talk about your project or idea with people that have learned from their mistakes.

Delegates will gain an Understanding of:

- Viable technologies – what really works based on our experience & monitoring of real installations.
- Financing – understand **Feed-In Tariffs** and consider share issues and other fund raising options e.g. supportive institutions and banks
- Planning applications – what's involved
- Project Management – consider the time required, the flow of work, and who can help
- Grid connection requirements – understand the practical aspects of linking to the grid and selling your energy
- Community engagement - find out what the community wants and turn that into an action plan
- Legal issues – identify the structures suitable for a community project
- Further Pit falls and challenges

What delegates will gain:

- The opportunity to see, hear and feel three community owned wind turbines of various sizes, a PV array and solar thermal system.
- Talking to people engaged in the process of implementing and running these projects.
- Contacts of people that can help

CPD

Attending a HHP event can contribute towards your CPD requirement. This event can count towards 6.0 hours of CPD (this excludes time for lunch) *You may wish to discuss with your professional body – many other visitors have used visits to HHP to meet their CPD requirements, including RIBA & CIOB members.*

Venue: Sustainable Resource Centre (SRC)

To meet the growing needs of visitors, the **Sustainable Resource Centre (SRC)** was completed in December 2004.

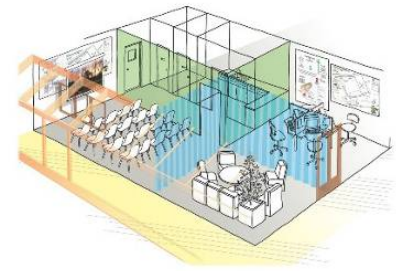
The facilities include a:

- A dedicated audio-visual room
- Seminar facilities
- Permanent exhibitions.

The building itself has been built to similar high environmental standards as the homes, including meeting autonomous, zero heating and zero CO₂ standards.

“The SRC will be an inspirational centre and act as regional catalyst for sustainable action, offering improved facilities and more extensive activities for a wide range of interest groups.”

HHP and Sustainable resource Centre



Programme

09.30	Registration and refreshments
10.00	Introduction: Personal Objectives for the day and visions
10.45	Case Study HHP Photovoltaic Panels
11.00	Viable Technologies Simon Tilley, HHP
11.15	Make the Feed in Tariff work for you Liz Lainé, HHP
11.45	Case Study HHP Wind Turbines
12.00	The new era of local renewables, planning issues Simon Tilley, HHP
12.30	Organic lunch (local caterer) & networking
13.00	Tour of Hockerton Housing Project's ISKRA 5kW and Proven 6kW turbines and PV array Simon Tilley, HHP
13.30	Case Study Community Wind Turbine 225kW
14.15	Refreshment break
14.30	Pit Falls and Challenges Nick Martin, HHP
15.00	Activities and Presentations Chose from: Financing, Community engagement, Technology interface, Monitoring, Project Management and Grid connection Simon Tilley, HHP
15.45	HHP Services explained
16.00	Tour Sustainable Hockerton's 225kw V29 Vestas turbine.
16.45	Close

This programme is only a guide with approximate timings. HHP reserves the right to vary the programme

Attendance at this events is limited to 16 delegates, to ensure a truly interactive and worthwhile event for all participants

Testimonials (From other HHP Master Classes)

The ability to see, hear and feel the products/engineering in action in a practical environment rather than just reading company brochures, watching promotional footage or demonstrations. It was very nice to talk to "real" people that live with the technology and have experienced benefits and pit-falls associated with it. ([Mark Cox, Building Surveyor, National Trust, Jan 07](#))

I think the main advantage of the day was being able to see the various technologies (that we've all been talking about for yonks!) actually functioning alongside each other, integrated into a real living community environment. You read about it, you hear about it but seeing it is altogether different. Terrific! ([Graham Mills, East Midlands Renewable Energies Group, Jan 07](#))

I thoroughly enjoyed the day and it was very encouraging talking to people who had practical experience rather than just a grasp of the theory. Simon's presentation on the principles was as clear as any I've seen, if not clearer and I particularly enjoyed his graphs showing the threshold between heating costs and insulation levels representing the point that thermal mass became important. the detailed discussion about construction and procurement challenges from Nick gave a practical edge to the day that you rarely get at other events. ([Rob Annable, Architect, Axis Design Collective, Birmingham, Nov 06](#))

"In brief your project at Hockerton is outstanding, the people amazing and the course was for me was thought provoking, eye opening and very inspirational." ([Martin Johnson, Brewster Bye Architects Ltd, Nov 06](#))

"I had a great day at Hockerton and have brought away many valuable ideas about how Willmott Dixon Housing can deliver more sustainable developments." ([Gareth Rondell, Sustainability Manager, Willmott Dixon Housing Ltd, Sept 2005](#))

I had a thoroughly enjoyable day at Hockerton and felt I learned a lot in what I thought was a wonderful model for ecological and sustainable living. I was very impressed with everything I saw, from the simplicity of the construction of the homes, and the amount of light projected through the conservatory area to the back of the homes, to the use of the solar and wind powered technology used for the energy supply for the homes, and the water supply and 'waste' management system. Compared with other conferences, seminars and visits I have undertaken in the course of my studies for my qualification, it has been the most enjoyable, interesting and informative, so on that basis I must say it has been the best value for money, as in the past I have paid more for less. ([David Spooner, Registration Executive, Lytham Land Registry, September 08](#))

I found it all very useful and the day was managed with pride, confidence and professionalism - I think its great what you guys have done I would like to visit again. Really really impressed. ([Senior Environmental Scientist, Wardell Armstrong LLP, Nov 07](#))

My main reason for visiting was that it's easy for us industrialists and academics to sit behind our desks pontificating on low-energy housing, but to visit the people who have actually DONE it is invariably refreshing, and is always a good thing to do as a 'professional sanity check'. ([Dr Neil Cutland, Executive Director, Inbuilt Ltd, Nov 07](#))

You made an excellent presentation and the level of technical knowledge was very high even when compared to similar project presentations that I have visited in the UK. I would thoroughly recommend the Masterclass to anyone wishing to know more about this field. ([Jon Morris, Principal, One Engineer, June 07](#))

Presenters/Guides/ Facilitators

General

- HHP have run over 20 Master Classes aimed at designers, developers and decision makers considering low carbon building
- HHP Frequently provide presentations to conferences/seminars – Recent examples:
 - Renewable Energy conference (Earls Court) (Insights on a zero energy residential development)
 - Regeneration East Midlands
 - Ecobuild (Small Scale Wind & PV – the realities at Hockerton)
 - MSc course at Nottingham Trent Uni (sustainable water use)
 - BRE seminar (Small scale wind)

Presenters have Lived, breathed, and demonstrated zero carbon living at Hockerton Housing Project to over 20,000 visitors over last 10 years.

Simon Tilley (M Eng, C Eng, M I Mech E)

Simon joined the project in 1995, with a background in Mechanical Engineering. This included spending two years in Namibia working for Voluntary Services Overseas (VSO). His engineering skills have been put to good use in the project - He manages the HHP water & energy systems and a number of key HHP projects, including a DTI Domestic PV field trial (2002 to 2005) and Sustainable Hockerton's 225kW community owned wind turbine. (2002 to 2010)



His main contributions to the on site business are:

- Managing Renewable Energy projects
- Technical tour guide
- Technical workshop facilitator
- Technical consultancy (Water and renewable energy systems)
- Main external speaker for the group.
- Leads and facilitates HHP's developments with schools educational work.

Previous outside environmental work includes Open University Associate Lecturer for the "Energy for a Sustainable Future" and "Renewable Energy" courses, VSO Course facilitator for technical volunteers and contributions towards Nottinghamshire Agenda 21's review of energy & construction. He is currently a director of Sustainable Hockerton Limited.

Nick Martin (BEd)

Nick Martin, a founding Project member, has a unique experience and knowledge of energy efficient housing. He first became interested in the early 1990's after acquiring a 25-acre site just outside the village envelope of Hockerton, in rural Nottinghamshire. Combining his interests in renewable energy and low impact developments he set to work on various concepts leading him to the earth-sheltered option. In the meantime he won the tender in 1993 to build the home of Prof. Brenda and Dr. Robert Vale, the UK's first sustainable town house - an autonomous house with 'net zero CO2' emissions, of low embodied energy, deriving power from photovoltaic arrays and passive solar heating. Nick Martin was so convinced by many of the construction principles that he commissioned Dr. Robert Vale to design a rural hamlet of 5 earth sheltered sustainable dwellings, Hockerton Housing Project, to similar energy and environmental performance standards - autonomous and with 'net zero CO2' emissions. Nick supervised this self-build project from August 1996 to Sept 1998.



Nick Martin is now one of the most experienced eco-builders in the UK. He leads the project consultancy work, including new designs for ultra low energy housing, as well as being directly involved in new eco-building projects. More recently he has been involved with the design and build of HHP's new eco-

community building (the Sustainable Resource Centre) a pair of earth-sheltered homes in Hockerton, a single eco-home, an eco-barn conversion and many eco-retrofits (including involvement in the Nottingham Eco-House). He is currently developing a proposal for an eleven home ultra low energy scheme in Hockerton.

Liz Lainé (BCom MSc)

Liz has a Masters in Corporate Governance and Ethics, is currently extending this with a PG Dip in Environmental Decision-making, and works full-time from home for Consumer Focus as an advocate of sustainable consumption. As part of this work she leads their response to the Feed-in Tariff.

Liz joined the Project in 2009, drawn from central London by the opportunity to live a lower carbon lifestyle. She's passionate about community action: whilst in Camden she coordinated the local Friends of the Earth group, ran 'Energy Zones' at Green Fairs in Camden and Brixton, coordinated volunteers for an award-winning EcoHouse and set up a Carbon Reduction Action Group. Since arriving in Hockerton, she's got involved as a Director of Sustainable Hockerton during the implementation of the community-owned wind turbine.



Terms and Conditions

Cost

- Students/low income = £60 + VAT = £69.00
- Individuals and micro-enterprises (< 5 employees) = £85 + VAT = £97.75
- Organisations < 50 employees = £150 + VAT = £172.50
- Organisations with 50 or more employees = £200 + VAT = £230.00

Booking

Your booking will be confirmed once payment has been received. Bookings must be accompanied by a cheque payable to 'HHP Trading Ltd'. Directions and further practical details will be sent to you with your booking confirmation.

Cancellation policy

- This policy is designed to cover the administrative costs HHP incurs in booking and arranging tours and the loss of income for our tour guides who have to cancel other work arrangements to be available. HHP is a self-funded organisation which relies upon the income it generates to continue to provide services in relation to sustainable living and education.

Cancellation by you

- Any booking fee paid will not be refunded unless written confirmation is received at least 5 working days prior to the event; substitute delegates are however welcome at shorter notice.
- For group bookings that do not take place, a nominal charge of £200 will be made to cover any costs incurred by HHP unless at least 5 working days notice has been given. If the event takes place but with smaller numbers than booked, the booked numbers must be paid for unless written notice is received at least 5 working days prior to the event.

Cancellation by us

- HHP reserves the right to vary the programme or cancel any event in case of insufficient bookings or circumstances beyond our control. We will endeavour to give 5 working days notice, and all fees paid will be fully refundable. Transfer to an alternative date will also be offered if available.

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