

Eco Open Houses Brighton & Hove

8–11 September 2011

























Visit new and renovated houses that show you how to reduce energy and water bills
Free entry + a chance to win an electricity monitor! See back page



www.ecoopenhouses.org

Design by Julian Howell. Printed by One Digital on recyded paper using vegetable-based inks

Welcome to Eco Open Houses 2011



Thursday 8 – Sunday 11 September

This year it is our pleasure to introduce the fourth Eco Open Houses event and the European EcoFab 2 project (see page 25)

Once again you can visit 'eco' houses in Brighton & Hove. Some of the houses are old, some are new, some have won awards, and others just seem plain ordinary. What they have in common is that the people living in them save lots of money by having low energy and water bills, whilst enjoying warm happy homes in winter!

Eco Open Houses aims to show that it doesn't necessarily take expensive renovation to reduce your energy and water bills – some simple behaviour changes and small changes to your home can make a big difference. By listening to the experiences of friends and neighbours and seeing what practical steps they have taken, we can all learn how to achieve reductions in energy and water use and carbon emissions in our own homes.

After you have visited a home please complete a pledge form to share your aspirations for your home and the timescale for the changes you would like to make. Everyone who completes a pledge form is entered into our prize draw to win a fabulous energy related prize.

Whether you are a home owner or tenant wanting to find out what you can do in your home to save money and feel healthier and warmer, a builder looking for better ways to build for your clients or just simply curious, come and be inspired by visiting an eco-home near you!

Mischa Hewitt ON BEHALF OF THE ECO OPEN HOUSES TEAM

For more information about the properties, visit **www.ecoopenhouses.org**

Eco Open Houses features

Here is a brief guide to some of the features of the Eco Open Houses. See our website **www.ecoopenhouses.org** for more detailed explanations.

Airtight construction – lots of heat is lost through drafts so this is a priority for saving money.

Biomass – any type of grown plant matter, ranging from logs, wood pellets and wood chip through to elephant grass and other materials. It can be combusted to produce heat or power.

Condensing boiler – a type of boiler that captures much more usable heat from its fuel than a noncondensing boiler. Its high operating efficiency is made possible by the design of the condensing boiler's larger – or sometimes dual – heat exchanger.

Energy controls – heating systems with simple easy controls in an accessible place can be more efficient as people use them more effectively.

Green roof – a roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also include additional layers such as a root barrier and drainage and irrigation systems.

Grey water recycling – collecting waste water from sinks, showers and baths and reusing it for toilet

flushing or watering the garden. Grey water is waste water that has not been mixed with sewage.

High performance glazing – windows that are designed to minimise heat loss, for example through an insulated frame, a low E coating, an inert gas filled cavity, triple glazing, or any combination of these.



Typical heat losses from a house

Insulation – a lightweight material that reduces heat flow. The better insulated a house is the cheaper it will be to run and it will be snugger in winter. All external elements of a building can be treated, including the ground floor, the walls and loft.

LED lighting – a low energy form of lighting that is very cheap to run and the bulbs last a long time.

Low energy appliances

 all appliances are rated from A to G, with appliances rated A and A++ for refrigeration using the least energy. Low water use toilets & shower – taps, showers or toilets that are designed to use less water than typical plumbing fittings.

Natural materials – any product that comes from plants or animals, including sheep's wool insulation, sweet chestnut cladding, sustainably sourced timber paints and clay plaster.

Passive solar design – a design form that uses less mains energy through taking advantage of the sun energy by using carefully using building orientation, solar gain, super insulation, thermal mass and passive ventilation to provide heating and cooling.

Photovoltaic (PV) panels – panels, usually mounted on a south facing roof that uses a technology that converts sunlight directly into electricity.

Rainwater harvesting – collecting water that falls on a roof and using it at home for washing clothes, flushing a toilet or watering the garden.

Solar thermal panels – using the sun's energy to directly heat water. Can be a flat plate system or evacuated tube system.

Ventilation system with heat recovery – system that provides fresh air with a heat exchanger that takes the heat from the air leaving the building to warm the incoming air.

Opening times

															—							
				•	Thu	ırs	day	y 8	Se	pte	emk	er								Fri	da	y 9
	PAGE	ا ن	10.30	11.00	11.30	12.00	12.30		2.00	2.30	3.00	3.30	4.00	4.30		10.00	10.30	11.00	11.30	12.00	12.30	
15 Lloyd Close, Hove BN3 6LZ	8																	Во	ok			
73 Wilbury Cres, Hove BN3 6FH	9			Ор	en													Ор	en			
20 Avondale Road, Hove BN3 6ER	10																					
1 3 Lovers Walk, BN1 6AH	11																					
ธ 5b Preston Park Ave, BN1 6HJ *	12																					
ff FFF, 43 Ditchling Rise, BN1 4QN	13																					
111 Ditchling Rise, BN1 4QP	14							–2pm							5pm							ша
1 Smart House, BN1 4SE	15							_							at 5p							1–2pm
one Brighton, Brighton BN1 4GH	16							sed	Во	ok	Во	ok	Во	ok	Closes							Closed 1
french Eco Techniques, BN1 4GQ	17							8							ဗြ							9
fi Hastings Eco Projects, BN1 4GQ	18															В	00	k	В	00	k	
1a Whichelo Place, BN2 9XE	19																					
1 4 Whichelo Place, BN2 9XF	20																					
4 Eastern Terrace Mews, BN2 1EP	21																	Ор	en			
16 76 Westfield Crescent, BN1 8JA	22																					
f Earthship Brighton, Stanmer Park	23	В	00	k	В	00	k															

^{*} House 5: tours start every half-hour but each lasts up to an hour

Visiting the houses

The event is free and all are welcome. Visits to these houses can happen thanks to the kindness and generosity of the householders. Please be respectful at all times and observe some basic rules:

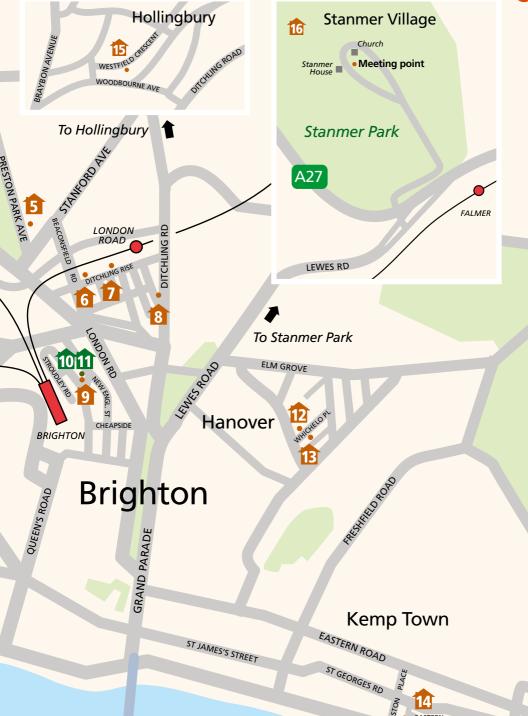
- Opening days vary and some can only be visited as part of a pre-booked guided tour. The see bottom of each page for opening times.
- If a house requires pre-booking then please go to the house page on our website **www.ecoopenhouses.org** and click on the **Book Tour** link for the time you wish to visit and reserve your place.
- Pre-book tours last around an hour and are led by either the householder or a professional associated with the project. They are based around the eco features listed in this brochure.

Times marked **B** or **Book** must be pre-booked at www.ecoopenhouses.org

Se	pte	ml	er						5	atı	ırd	lay	10	Se	ept	em	be	r						Su	nda	ay '	11 :	Sep	ote	mb	er			
2.00	2.30	3.00	3.30	4.00	4.30		10.00	10.30	11.00	11.30	12.00	12.30		2.00	2.30	3.00	3.30	4.00	4.30		10.00	10.30	11.00	11.30	12.00	12.30		2.00	2.30	3.00	3.30	4.00	4.30	
		Во	ok					Но	urly	/ tou	ırs																		Но	urly	tou	ırs		
							Во	ok	Во	ok	Во	ok		Во	ok	Во	ok	Во	ok															
																					В	oo	k	В	00	k		В	00	k	В	ool	k	
																					В	В	В	В	В	В		В	В	В	В	В	В	
							Н	alf-	hou	ırly t	our	rs									Н	alf-	hou	rly	tou	rs								
						5pm			Op	en			–2pm							5pm			Ор	en			–2pm							ᇤ
						at 5							$\overline{}$			Op	en			at							_			Ор	en			at 5pm
Во	ok	Во	ok	Во	ok	Closes							sed							Closes							Closed							Closes
						ಕ	В	00	k	В	ool	k	9							ö							히							5
																							Ор	en						Ор	en			
Вс	ok	Во	ok	Во	ok									Во	ok	Во	ok	Во	ok															
																Op	en													Ор	en			
																					В	oo	k	В	00	k								

- Times for open house sessions are between 10am–1pm in the morning and 2pm–5pm in the afternoon unless otherwise specified. Please do not visit between 1–2pm.
- Please be aware that at some of the houses you may be asked to remove your shoes.
- Please note that some of the houses featured are currently having building work done on them. Take care when visiting.
- Children must be supervised by an adult.
- Sorry, no dogs (please ask householder for permission to admit guide dogs).
- We encourage everyone to travel to each house by public transport or bicycle. Details of buses and the nearest train station are listed with each Eco Open House.











15 Lloyd Close Hove BN3 6LZ

This is a recently completed new build detached eco house designed by award winning eco architects Mark Pellant and Abi Torr of Koru Architects for their family. The house is zero carbon, benefiting from a good orientation, very high levels of insulation and air-tightness – which exceed building regulations.

FEATURES

- + Airtight construction
- + Biomass boiler
- + Green roof
- + Natural materials
- + Photovoltaic panels
- + Rainwater harvesting
- + Solar thermal panels
- + Solid timber frame construction
- + Underfloor heating
- + Zero carbon

A wood pellet boiler and solar thermal array provide the small amount of heat required. A large underground rainwater harvesting tank provides water for flushing the toilets. The photovoltaic array exports energy to the 'grid'. Materials are mostly natural, low impact and environmentally friendly and reflect the architects' desire to promote green architecture.

For Mark and Abi, the house is the realisation of a long held dream, following a five year journey of searching for a suitable site in Brighton & Hove, negotiating, designing their house and building.

BUSES: 81, 81C and 55, 56, 59 (Old Shoreham Road)

TRAINS: Hove rail station

Friday	9 Sept	Saturday 10 Sept	Sunday 11 Sept
11.00 – 12.00	3.00 – 4.00	10.00 – 1.00	2.00 - 5.00
Book tour	Book tour	Hourly tours	Hourly tours









73 Wilbury Crescent Hove BN3 6FH

FEATURES

- + Energy conservation
- + Energy monitoring
- + Insulation
- + Solar thermal panels
- + Photovoltaic panels

Jeffery and Brenda have lived in their Edwardian terraced house for over 26 years. The family put a lot of effort into saving energy and water. Jeffery worked for Seeboard Electricity for 31 years and has a special interest in monitoring fuel consumption.

Now retired, Jeffery and Brenda have taken their conservation approach further installing double glazing, cavity wall insulation, loft insulation top up and solar water heating. In September 2011 photovoltaic panels (2.8 kWp) will be installed. They have stayed with installers Southern Solar, a Lewes based company: 'the nicest contractors we've ever dealt with!'

Their motivation has been to reduce consumption whilst maintaining comfort levels. Doing so has reduced energy costs, their carbon footprint and improved the value and energy rating of their home. Prior to installing photovoltaics, Jeffery calculates that savings of around 50% have been achieved for gas and electricity.

BUSES: 7 to Holland Rd. 56 to Cardinal Newman School, 81/81c to Old Shoreham Rd TRAINS: Hove Station

Thursday 8 Sept	Friday 9 Sept
10.00 – 1.00	10.00-1.00
Open	Open







20 Avondale Road Hove BN3 6ER

Oliver Heath's eco refurbishment of this 1960s detached house for his family in Hove was undertaken with the aim of reducing the house's carbon footprint and creating a great family home. Carbon emissions have been reduced by 66% from 10.9 to 3.77

tonnes a year, giving dramatic savings on energy bills.

FEATURES

- + External wall insulation
- + Sweet chestnut cladding
- + Heat recovery system
- + High performance glazing
- + Low energy LED lighting
- + Natural materials & finishes
- + Solar thermal panels
- + Wood burning stove

The brick exterior has been transformed using insulating render and locally sourced sweet chestnut cladding. Natural materials and finishes have been used inside to create an eco chic interior, including reclaimed larch, Cumbrian slate, natural paints and recycled glass work surfaces. The house uses several cutting edge technologies including a heat recovery system, low energy LED lighting and benefits from a doubling of glazing on the ground floor to maximise natural light. But a good eco home is not simply about improving its technical specification; it's also about creating internal spaces that people enjoy living in and using. Oliver has used his design skills to create a home that reflects the culture of sustainability in practical and aesthetic ways.

BUSES: 7 (Cromwell/Davigdor Road) and 55, 56, 59 (Old Shoreham Road).

		Saturday	/ 10 Sept		
10.00 – 11.00	11.00 – 12.00	12.00 – 1.00	2.00-3.00	3.00-4.00	4.00-5.00
Book tour	Book tour	Book tour	Book tour	Book tour	Book tour



The Nook 3 Lovers Walk Brighton BN1 6AH

This large detached Victorian house owned by Two Piers Housing Cooperative is located in the Preston Village conservation area of Brighton. The house has been eco-renovated as part of the Technology Strategy Board's 'Retrofit for the Future'

FEATURES

- + Airtight construction
- + External & internal wall insulation
- + Ground floor insulation
- + High performance glazing
- + Low energy appliances
- + Mechanical ventilation with heat recovery
- + Solar thermal panels
- + 80% CO₂ emissions reduction

project. Prior to refurbishment, energy performance was poor for this type of house (band 'F') and it was very costly to run.

A holistic package of measures was designed by the award winning Lewes based eco architects BBM Sustainable Design and the building work was undertaken by Earthwise Construction. The extensive energy efficiency measures included; reducing heat loss by insulating the walls, ground floor, and roof; providing energy efficient space and water heating; and improving the efficiency of electrical systems.

Previously energy bills were over £1,500 a year. With all the measures in place it is anticipated that they will drop to less than £750 and CO_2 emissions will have been reduced by 80%.

BUSES: 5, 5A TRAINS: Preston Park station

	Sunday 11 Sept								
10.00 – 11.30	11.30 – 1.00	2.00-3.30	3.30-5.00						
Book tour Book tour Book tour									





5

Yew Tree House 5b Preston Park Ave Brighton BN1 6HJ

This house won the Federation of Master Builders Energy Efficiency Award 2011 as an 'Inspiring eco home needing no central heating and minimal water'.

Mick and Sue Paskins had this new house designed by award winning eco architects ZED Factory. It is an outstanding exemplar of urban low energy design. The house is

FEATURES

- + Airtight construction
- + Wood burning stove
- + Green roof
- + High performance glazing
- + Low water use toilets & shower
- + Low energy LED lighting
- + Mechanical ventilation with heat recovery
- + Passive solar design
- + Rainwater harvesting
- + Solar thermal panels

orientated to maximise the amount of sun it receives. High levels of insulation and heavyweight internal materials store the sun's energy. The house is very airtight and has a ventilation system with heat recovery to provide fresh air in winter.

Hot water is mostly supplied through a solar thermal array. A condensing gas boiler can top up hot water during winter and the wood burning stove provides any additional heating required. Rainwater is harvested for flushing toilets and watering vegetables and fruit. The house is clad in Sweet Chestnut, which needs no treatment to preserve it and is grown in Sussex. There is a green sedum roof to attract beneficial insects and other wildlife.

BUSES: 5, 5A, 5B TRAIN: London Road station

	Sunday 11 Sept (tours start every half hour and last an hour)												
10.00	0.00 10.30 11.00 11.30 12.00 12.30 1.00 1.30 2.00 2.30 3.00 3.30 4.00 4.30 5.00												
Book tour Book tour Book tou				tour			Book	Book tour Bo			Book tour		
	Book tour Book tour		Book	tour			Book	tour	Book	tour	Book	tour	









First floor flat 43 Ditchling Rise Brighton BN1 4QN

Abby and Kate have renovated one end of this split level flat in a Victorian house into a healthy home. The approach has included insulating the floor, walls and roof using natural, recycled or reused building materials wherever possible.

FEATURES

- + Condensing boiler
- + Internal wall insulation
- + Low water use toilet
- + Low water use shower
- + Natural materials
- + Triple glazing
- + Under floor insulation

Natural materials allow moisture to pass through the building fabric and reduce 'off-gassing' from synthetic materials. This includes sheep's wool and newspaper insulation, bamboo work surfaces, marmoleum flooring, clayboard ceiling and partition wall boards, lime plaster, natural paints, wood-fibre insulation and Forest Stewardship Council (FSC) sustainable birch ply.

Windows have been replaced with high performance glazing, with the triple glazing at the back significantly reducing noise from the road. There are also various water conservation measures in place, including a dual flush toilet, aerated showerhead and water meter to measure savings, with water bills being around a quarter of what they would be if paid by standing charge.

BUSES: 26, 46 (Ditchling Road), 5, 5A, 5B (London Road) TRAIN: London Rd station

Saturday 10 Sept	Sunday 11 Sept
10.00 – 1.00	10.00-1.00
Half-hourly tours	Half-hourly tours









111 Ditchling Rise Brighton BN1 4QP

Maria Hawton-Mead bought her Victorian terraced house 12 years ago. It was in a grisly state – no central heating and orange shag pile carpet!

FEATURES

- + Airtight loft extension
- + Energy monitoring
- + High performance glazing
- + Internal wall insulation
- + Low energy lighting
- + Photovoltaic panels
- + Wood burning stove

As her interest in sustainability grew she decided to turn her home into a demonstration project. The five months to complete the work was very disruptive and a real learning curve! The house has been transformed from being leaky, cold and expensive to run, into a warm, cheap to run, low energy home. Carbon emissions have been dramatically reduced by at least 80%. Gas bills have been significantly reduced thanks to insulation work and the wood burner. The PV panels have freed her from electricity bills and she now makes a profit by selling back to the grid.

During the retrofit Maria tried to maintain the original character of the house. For example, she installed slim double glazing sash windows that look just like the old ones (without the draughts) and restored original Victorian cornices over the internal wall insulation.

BUSES: 26,46 (Ditchling Road), 5, 5A, 5B (London Road) TRAINS: London Rd stn

Saturday 10 Sept	Sunday 11 Sept
10.00 – 1.00	10.00-1.00
Open	Open



Smart House
Ditchling Road
(corner of Vere Rd)
Brighton BN1 4SE

FEATURES

- + Green roof
- + Passive solar design
- + Photovoltaic panels
- + Rainwater harvesting
- + Solar thermal panels
- + Super insulation
- + Thermal mass
- + Under floor heating

The Smart House is a south facing bungalow dug in to the ground. It demonstrates a passive solar earth sheltered design, providing a warm comfortable home all year round whilst using almost zero energy. It has photovoltaic and solar thermal panels producing renewable energy and hot water on site and a grass roof to attract bio diversity.

The holistic design incorporated a sustainable approach from the outset, rather than simply adding on renewable energy as an afterthought. This illustrates that sustainable architecture has to begin with a thoughtful understanding of environmental techniques. In principle, the scheme could be constructed as a modular system that is designed to be fairly accessible to most people.

BUSES: 26,46 (Ditchling Road), 5, 5A, 5B (London Road) TRAINS: London Rd stn

Saturday 10 Sept	Sunday 11 Sept
2.00 – 5.00	2.00-5.00
Open	Open





One Brighton (marketing suite) Stroudley Rd Brighton BN1 4GH

If everyone in the world used the same resources used by people in the UK we would need three planets to survive! The One Brighton development has been designed using ten guiding principles developed by

FEATURES

- + Biomass heating & hot water
- + Breathable clay block walls
- + High performance glazing
- + Photovoltaic panels
- + Sustainably sourced timber
- + Ventilation system with heat recovery
- + Roof top allotments
- + Zero carbon

BioRegional and WWF international to lower the people's ecological footprint to within the capacity the earth can sustain:

1 Zero carbon

2 Zero waste

3 Sustainable transport

4 Sustainable materials

5 Local and sustainable food

6 Sustainable water

7 Natural habitats and wildlife

8 Culture and heritage

9 Equity and fair trade

10 Health and happiness

The apartments' features include triple glazing, highly insulated breathable walls, a community heating system from biomass and hot water for heating, solar panels for electricity and roof allotment plots.

BUSES: 5, 5a, 5b or any bus to London Road (York Hill) or 8, 37 to New England St. TRAINS: Brighton Station

Т	hursday 8 Sep	t		Friday 9 Sept	
2.00-3.00	3.00-4.00	4.00-5.00	2.00-3.00	3.00-4.00	4.00-5.00
Book tour	Book tour	Book tour	Book tour	Book tour	Book tour





French Eco Renovation Techniques: interactive presentation

At Brighton Junction, 1A Isetta Square, 35 New England St, Brighton BN1 4GQ

Presentation by Association Régionale de

Promotion de l'Eco-construction en Basse Normandie (ARPE) and Les Petits Débrouillards on French eco renovation techniques, used within three eco-renovation projects in Lower Normandy. All the projects use natural materials, including earth, lime, hemp and timber, and using wool insulation.

The projects are centred on: a farmer developing a bed and breakfast business; an architect renovating their home; and an individual aiming to dramatically reduce their carbon footprint. The presentation demonstrates how you can reduce your carbon foot print, using 'retro innovation', i.e. traditional techniques adapted for modern buildings.

The session will include interactive experiments with different aspects of building physics that will be discussed including: condensation; evaporation; cold and hot surfaces; and thermal comfort. There will also be a discussion of the benefits of external wall insulation versus internal wall insulation.

BUSES: 5, 5a, 5b or any bus to London Road (York Hill) or 8, 37 to New England St. TRAINS: Brighton Station

Saturday	/ 10 Sept
10.00 – 11.30	11.30 – 1.00
Book	Book

FEATURES

- + Insulation
- + Low water use toilet
- + Low water use shower
- + Natural materials
- + Solar thermal panels
- + Wood burning stove





Hastings Eco Projects: presentation/discussion

At Brighton Junction, 1A Isetta Square, 35 New England St, Brighton BN1 4GQ

Presentations and discussion by South Coast College Hastings and the Hastings Trust on two eco building projects: the Realistic Working Environment at the college and an eco-retrofit in Hastings Town centre.

FEATURES

- + Insulation
- + Low water use toilet
- + Low water use shower
- + Natural materials
- + Solar thermal panels
- + Wood burning stove
- + Sun tube lighting

Other than being eco-homes, both projects have strong training elements.

At the Realistic Working Environment, construction students are getting handson training in eco-friendly construction, by building a full size eco-home. The house is part of a two and a half year project and is going to be built in stages to coincide with students learning new skills. When finished, the house will measure 100 square metres and will have provided a great learning tool for future construction industry workers.

12 Cambridge Gardens is a typical Victorian terrace, bought by the Hastings Trust and developed as an 'Eco-retrofit'. Although the green measures have increased the overall cost by around 7%, this was considered good value in terms of environmental performance and reduced future running costs. Much of the work was carried out by trainees and volunteers.

BUSES: 5, 5a, 5b or any bus to London Road (York Hill) or 8, 37 to New England St. TRAINS: Brighton Station

Friday 9 Sept			
10.00 – 11.30	11.30 – 1.00		
Book	Book		







1a Whichelo Place **Brighton BN2 9XE**

Jackie and Alan have lived in various houses in Brighton since 1992, but were increasingly 'fed up with living in cold, damp, draughty places,

paying huge heating bills and constantly running up and down stairs'.

After completing a self-build course they decided to have their own house built 'as green as possible'. They looked around for a suitable site and successfully bid on the plot in Hanover at auction. They gained planning permission to build a bungalow and the project was completed in 2007.

The bungalow is a highly insulated timber frame building slightly set into the ground with underfloor heating throughout. It is very light and airy inside. Each room has its own roof light to provide natural light, reducing the need for artificial lighting. The house was built to 'Eco Homes' excellent standard and is a Green Apple National Silver Winner.

BUSES: 25c, 37, 37b, 81, 81a, 81b, 81c to Queens Park Road (Pepper Pot)

TRAIN: Brighton Station 1 mile

Sunday 11 Sept			
10.00 – 1.00	2.00-5.00		
Open	Open		

FEATURES

- + Condensing boiler
- + Grey water system
- + Green roof
- + Sheep's wool insulation
- + Solar thermal panels
- + Timber frame









4 Whichelo Place Brighton BN2 9XF

4 Whichelo Place is a typical Victorian three storey mid-terrace, solid wall house in the Hanover area of Brighton. The aim of Paul

FEATURES

- + Energy efficiency
- + External wall insulation
- + High performance glazing
- + Natural materials
- + Solar thermal panels
- + Wood burning stove

and Marion's refurbishment was to make the house much warmer in winter, while reducing energy consumption for space and water heating by at least 50%. These aims have been achieved in the last year by fitting good quality double glazing, external wall and internal floor insulation, new internal doors, installation of a solar hot water system and a new wood burning stove.

Ongoing energy and temperature measurements demonstrate that the house is now much more comfortable and the target for reduction of energy consumption will be met. A new room in the roof was also constructed at the same time, to a much higher than normal insulation specification. Natural materials and finishes such as lime render were used wherever practicable.

BUSES: 25c, 37, 37b, 81, 81a, 81b, 81c to Queens Park Road (Pepper Pot)

TRAIN: Brighton train station 1 mile

F	Friday 9 Sept Saturday 10 Se		ept		
2.00-3.00	3.00-4.00	4.00-5.00	2.00-3.00	3.00-4.00	4.00-5.00
Book tour	Book tour	Book tour	Book tour	Book tour	Book tour









4 Eastern Terrace Mews Brighton BN2 1EP

After recently moving from London to Brighton, Yoram and Nicky Allon were looking for more than a straightforward modernisation of a property – they were

FEATURES

- + Airtight construction
- + Internal wall insulation
- + LED lighting
- + Mechanical ventilation with heat recovery
- + Natural materials
- + Solar thermal panels
- + Underfloor heating

looking for a house to buy and eco-renovate to fit their principles of ethical and efficient energy conservation.

Bright Green Homes designed and project managed the work, to create a beautiful home with a high specification finish that dramatically reduced primary energy consumption – taking the overall CO₂ emissions from 9 tonnes per annum to 2.5 tonnes per year.

The house has many features including, high levels of insulation, underfloor heating, LED lighting, a sun pipe and mechanical ventilation with heat recovery (MVHR). Natural paints with a low volatile organic compound (VOC) content were used throughout to create a healthy indoor environment.

BUSES: 12, 14, 27 along the seafront (Marine Parade); 1, 7, 21, 23, 47, 52 along Eastern Road

Friday 9 Sept

10.00-1.00

Open







76 Westfield Crescent Brighton BN1 8JA

Tom, Francesca and their two teenage daughters are committed to reducing their impact on the environment. Since moving into their semi-detached 1940s Hollingbury home

FEATURES

- + Cavity wall and underfloor insulation
- + Photovoltaic panels
- + Wood burning stove
- + LED lighting
- + Energy monitoring
- + Rainwater harvesting
- + Grey water recycling

in 2006, they have made improvements, reducing their carbon dioxide emissions by over 60% since their first year there. The family now have an annual carbon footprint of 1.6 tonnes from energy use at home. Energy use is monitored monthly to track performance, but staying focused on behaviour is an essential aspect in minimising energy use.

Gas use has been reduced by over 50% through: cavity wall, loft and underfloor insulation; a condensing boiler; a wood burning stove; and water efficiency measures. Photovoltaic panels (1.4kWp) were fitted in 2010 which in year one generated 1350kWh earning £600 through the Feed in Tariff. With 'A' and 'A+' rated appliances, LED lighting and photovoltaic panels, and with carbon offset through generating electricity the family are virtually carbon neutral in home electricity use.

BUSES: 5B (top of Braybon Avenue); 26, 46 (Woodbourne Avenue); 56

Saturday 10 Sept	ept Sunday 11 Sept	
2.00 - 5.00	2.00-5.00	
Open	Open	







Earthship Brighton Stanmer Organics **Stanmer Park Brighton BN1 9PZ**

The award winning Earthship Brighton was designed and built by Low Carbon Trust as a

project aiming to create a model passive solar,

Stanmer Park.

low carbon building for use as a community centre at Stanmer Organics in

Earthships are off-grid self-sufficient 'green' buildings, constructed using waste car tyres and other recycled materials. They use natural systems to provide all utilities – solar energy for heat and power and rain for water. They heat and cool themselves, and use plants on site to treat sewage. They also employ extensive energy efficiency and water conservation measures, ensuring that the rainwater and renewable energy they harvest go as far as possible.

For more details of the project see www.lowcarbon.co.uk or the book Earthships: building a zero carbon future.

BUSES: 25, 25c (to Stanmer Park main entrance), TRAINS: Falmer Station

Thursday 8 Sept		Sunday 11 Sept		
10.00 – 11.30	11.30 – 1.00	10.00 – 11.30	11.30 – 1.00	
Book tour	Book tour	Book tour	Book tour	

FEATURES

- + Grey water recycling
- + Natural materials
- + Photovoltaic panels
- + Passive solar design
- + Rainwater harvesting
- + Solar thermal panels
- + Wood burning stove
- + Wind turbine



Eco Open House team

Eco Open Houses has been coordinated by:



Brighton & Hove City Council

Brighton & Hove City Council www.brighton-hove.gov.uk

The city council is committed to improving the energy efficiency of the city's housing stock across all tenures, and to reducing the number of people on low incomes living in homes with low energy efficiency (see grants page). Eco Open Houses is supported within the council by City Planning which seeks to facilitate the development and refurbishment of the city's housing stock to highest environmental standards.



Brighton Permaculture www.brightonpermaculture.org.uk **Brighton Permaculture Trust**

Brighton Permaculture Trust promotes greener lifestyles and sustainable development through design. We run a range of courses and events, from an introduction to permaculture to a longer permaculture design course and specific courses/events on green architecture, gardening and fruit growing including our apple day at Stanmer Park. We run projects in schools including eco clubs and the planting of small orchards which we also assist community projects with. Other fruit themed work includes managing orchards and a small fruit nursery at Stanmer Park and harvesting unused fruit from around the city for juicing etc. Permaculture design is about practical ecological strategies for land, water, buildings, people and communities. It is based on the philosophy of co-operating with nature and caring for the earth and its peoples.



Low Carbon Trust is a not-for-profit organisation formed in 2001 to set up, manage and promote environmental projects. Our main objective is tackling climate change through highlighting the connection between buildings and the carbon emissions resulting from their use. We do this by running innovative low-carbon construction projects, and training, outreach and education workshops. Our first project was the development of the Earthship Brighton project. After winning various awards, it is being showcased as one of the most innovative eco-buildings in Europe.



Eco Open Houses 2011 is part of EcoFab 2 and is supported by INTERREG IVa:



ecofablog.blogspot.com



The EcoFab 2 project aims to encourage the exchange and acquisition of knowledge, as well as the development of skills, in the field of ecoconstruction between Lower Normandy and East Sussex. The project plans to implement adapted training and exchanges of best practices between French and British organisations, including Low Carbon Trust.

The project follows the two year pilot project EcoFab 2, and has been selected within the scope of the INTERREG IV A France (Channel) – England cross-border European cooperation programme, co-financed by the ERDF. The project has different areas based around experimentation with new eco building techniques, sustainable construction training, creation of tools and various eco building events.

Experimentation with new eco building techniques

- Renovation of a former 1950s school with straw bales
- Building of an eco-garden pod in Hastings from straw bale
- Implementation of training activities integrating an eco-citizenship approach

Sustainable construction training

- Training of builders and artisans
- Training of job seekers in their search for vocational projects
- Organization of a seminar on the eco-citizenship approach

Creation of tools

- Eco-material learning kit
- Franco-British glossary on eco-construction

Eco building events

- Amblie event: L'éco-construction en pratique
- Brighton and Basse-Normandie events: Eco Open Houses
- Hastings event: Pathways to construction





Council energy grants

The Brighton & Hove Warm-Homes project is a partnership between the council, Climate Energy and EDF Energy working to help you to improve home energy efficiency, save money on gas and electricity bills and claim benefits you might be entitled to.

Brighton & Hove Warm-Homes' offers

- 100% grants or a discounted price of £148 each, for loft and cavity wall insulation
- 100% grants or part grants for installing solar water heating systems
- Free confidential benefit entitlement checks

The grants and discounts are normally available to owner occupiers, leaseholders and in some cases, private tenants who must have permission from their landlord to carry out the work. There are age, benefit or income eligibility criteria for 100% grants. All schemes are subject to a property survey.

Call 0800 048 0727 to find out more or to apply!

Recent initiatives

Recently there have been various government schemes to encourage the uptake of energy efficiency and renewable energy measures and others are planned to be launched next year.

Feed In Tariff – this scheme is aimed to encourage the uptake of solar panels and other energy generating technologies by paying people a fixed amount for any renewable electricity they generate in their homes. Until April 2012, a householder that installs a photovoltaic array on their house will be paid 43.1p per kWh of electricity they generate, with an extra 3.1p payable if they export the power to the grid. From April 2012 it is anticipated that the tariff will be reduced slightly. All prices are guaranteed for 25 years and are index linked.

Renewable Heat Incentive – this will operate just like the Feed in Tariff but will be for renewable heat generated in people's homes through solar thermal panels, heat pumps and biomass boilers. The scheme will be introduced in autumn 2012 and the level of the tariff will be set before then. In the meantime the government has recently announced the Renewable Heat Premium Payment which offers a range of grants.

Green Deal – this will provide a 'low interest' loan of up to £10,000 (amount to be confirmed) per household through a Pay As You Save (PAYS) mechanism. The scheme is funded by a charge on energy bills and so avoids the need for upfront costs. The Green Deal will be available to householders from autumn 2012.

For further info: www.energysavingtrust.org.uk www.decc.gov.uk

The Energy Saving Trust strongly endorses the Brighton & Hove Eco Open Houses event. We are working with organisers of open homes events across the country plus local businesses with the aim of developing a national network of eco open homes.



The Energy Saving Trust is a non-profit making organisation which provides independent advice on how to reduce your energy use. The website offers information for householders on:

- Financial incentives and grants such as the Renewable Heat Incentive, the Feed in Tariff and the Green Deal
- Insulating your home and making it more water efficient
- Renewable technologies: costs, efficiency, and appropriate technologies
- Other Open House events around the UK
- Creating a personal Home Energy Check about your house
- · Calculating your carbon footprint
- How to sign up for bulletins from the Energy Saving Trust

Visit www.energysavingtrust.org.uk or contact a local energy adviser on 0800 512 012



A chance to win a really Smart electricity monitor!

You can win a fantastic energy monitor called Eco-eye Smart, or one of five Eco-eye Plug-in appliance monitors which will help you monitor and reduce your electricity use. Mains electricity is responsible for twice the carbon emissions of main gas – so by reducing electricity use you can significantly reduce your carbon footprint.

To win one of these six prizes, just attend one of the Eco Open Houses and fill in a feedback form, making a pledge to reduce your environmental footprint at home.

Eco-eye Smart and Eco-eye Plug-in monitors have been kindly donated by Modern Moulds & Tools Ltd, Lancing. Eco-eye Smart is the latest and most advanced in their range of energy monitors.

Whilst incorporating many features of the award-winning Eco-eye Elite and Mini, Eco-eye Smart takes energy saving to a new level. As well as real time mode displaying instant visual data on overall household usage, the history allows you to track usage over 32 data entries. Eco-eye Smart can output data to a computer via a data cable or memory card, making it easier than ever to monitor consumption and eliminate wastage.

You can take further control of your energy saving by setting your own daily usage targets which work in conjunction with a high usage alert system – this demands attention by pulsing one of three traffic lights every four seconds indicating your level of usage. Eco-eye Smart is simple to fit, highly energy efficient with an extended battery life of over 18 months and is ideal for domestic and commercial use.

www.eco-eye.com

