



Eco open houses in Brighton and Hove



An evaluation report

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Executive Summary

A recent study by the World Wildlife Fund looked at the 'ecological footprint' of 60 major cities and found that Brighton & Hove has one of the poorest ratings of cities in the UK. The study covered everything from products, resources, energy and water used in the city - many of which are used in the home! If everyone in the world consumed resources like we do then we'd need the resources 3.47 planets to live sustainably, but of course we only have one planet! The carbon footprint of Brighton and Hove is 1.37MtCO₂ (million tonnes of carbon dioxide), with the use of buildings accounting for 50% of this.

It is now widely accepted that carbon dioxide pollution from the combustion of fossil fuel is directly leading to climate change. A breakdown of where the energy is used in Brighton and Hove reveals that nearly half of the city's carbon dioxide emissions come from energy use in home. Therefore, to make Brighton and Hove a low carbon city in line with the UK government's recently announced target of an 80% cut in carbon dioxide emissions by 2050, action must begin at home. As well, whilst many think fuel is expensive now, with gas prices regularly increasing by 20 to 30% a year and the average annual energy bill for a household being over £1,300, there seems little doubt that in the future prices will continue to increase as demand rises and supplies dwindle. As time goes by we may find it progressively harder to afford to heat our homes and more people will find themselves in fuel poverty.

In response to this and the challenge of transforming existing housing into energy efficient homes, two local environmental organisations, Brighton Permaculture Trust and the Low Carbon Trust teamed up with their local authority, Brighton and Hove City Council, to deliver the Eco Open Houses event. Legal & General Plc and the South East England Regional Assembly (SEERA) kindly supported the event and the South East England Development Agency (SEEDA) donated 'Effergy' Smart Meters to the participating houses. The total budget for the project was £20,551.95.

Eco Open Houses aimed to initiate widespread adoption of energy, water, carbon and money saving measures in houses by empowering and inspiring members of the public to make environmental changes to their own homes, through raising awareness and seeing what practical steps other people have taken in their communities in their homes. It was about people learning from the experience of others and making positive changes to reduce their ecological footprint.

The project ran over the two weekends of 28/29th June and 06/07 July 2008 in Brighton and Hove, where 14 eco houses opened their doors to the public. Previously four of the houses had won awards for their sustainability features. The event was free and attracted 2,459 visitors. In each house the householders themselves led tours and were supported by a number of volunteers from Brighton Permaculture Trust, the Association of Environment Conscious Building (AECB) and students from the Centre of Alternative Technology (CAT). If the number of visitors is divided by the project budget, the cost per visitor becomes around £8.00.

Some houses had tours arranged by the construction industry professionals who had worked on them, including Duncan Baker Brown of BBM Sustainable Design, Pooran Desai of Bioregional, and the Low Carbon Trust, the builders of Earthship Brighton. The houses demonstrated different approaches to environmental renovation through insulation methods, renewable energy, water saving, wastewater recycling, rainwater harvesting, green roofs and use of natural and recycled materials. For example 10 of

the houses had solar thermal installations. The friendly, informal approach encouraged peer-to-peer discussion and enabled people to meet their neighbours who had already eco-renovated their houses and discuss the benefits, barriers and opportunities for energy, carbon and financial savings.

Each of the brochures and feedback forms had a pledge attached, which visitors were invited to complete. Individuals made pledges to take action to reduce their energy and water use. The actions they could pledge to do ranged from those that cost nothing, such as turning thermostats down by 2°C or wearing an extra jumper rather than turning up the heating, to more expensive measures such as cavity wall insulation or installing renewable energy equipment. Pledges were made over three timescales: 'do now', 'do in 1 year' and 'do in 3 years'.

If adopted, the pledges would result in savings of 1,000 tCO₂ (metric tons of carbon dioxide) within a year, with an additional 335 tCO₂ after the first year and an additional 30 tCO₂ by the third year. In total over three years this would save just under 4,000tCO₂ and the corresponding financial saving would be around £475,000 in heat and £31,000 in electricity energy.¹ These figures were calculated using the price £0.05 per kWh for heat and £0.12 per kWh for electricity. Dividing this outcome by the cost of the project means that the project delivered a potential carbon saving of around £5.00 per tonne of carbon dioxide. The figure was calculated using only the completed pledges returned by 11% of visitors, so the impact of energy and carbon dioxide emission reductions, though unquantifiable, maybe higher. It was not within the scope of the project to follow up on the pledges that the visitors made.

A website, www.ecoopenhouses.org, was produced to publicise the event and a 28-page brochure was printed (on paper produced from sustainably-managed forests, using vegetable-based inks). The brochures were distributed through local outlets and a banner was hung on the Eco Centre by Brighton station. There was also an exhibition showcasing a number of the properties, and reports available at each house explaining the sustainability features.

In December 2008 Brighton and Hove City Council, Brighton Permaculture Trust and the Low Carbon Trust were highly commended in the National Energy Efficiency Awards, in the Community and Voluntary Sector category for this project.



¹ (1,000 x 3) + (335 x 2) + (300 x 1) = 3,970

Direct benefits of Eco Open Houses

- 2,459 visitors to the 14 houses, with 25% completing feedback forms. Of these visitors 152 said they learnt *'a great deal'*, whilst 219 said that they learnt *'quite a lot'*. The brochure and form had a pledge section in it, where people could pledge to change their behaviour, ranging from turning their thermostat down to installing solar thermal panels on their house. 205 people pledged to *'definitely'* make one or more changes, whilst 175 said they *'probably'* would. 65% of visitors owned their own house, and so perhaps had greater ability to make structural changes to their home.
- Media profile: the event received large amounts of media coverage – 23 articles, including coverage in the New York Times, The International Herald Tribune, British Satellite News, CBS News, The Observer, BBC Southern Counties Radio, BBC Solent Radio, and Self Build & Design Magazine.
- Created resources to inspire and encourage householders to retrofit their houses: from a brochure, handouts and reports on each house; through to an Eco Open Houses exhibition that is touring various venues in the South East. The quality of the materials enabled the project to reach out into the mainstream and this diversity was reflected in the demographics of those who completed feedback forms. Of the 512 people who provided feedback, 48% said that the website was *'good'* or *'excellent'*, whilst 85% said that the brochure was *'good'* or *'excellent'* and 90% said that the interpretation material for each house was *'good'* or *'excellent'*.
- The project website, www.ecoopenhouses.org, received over 200,000 hits and had over 12,000 unique visitors between April and September 2008. The website is an ongoing online resource to help people eco-renovate their houses.

Indirect benefits of Eco Open Houses:

- Raised awareness of energy, water and resource use and ways of reducing these through easy energy efficiency measures, such as insulation, fitting energy saving light bulbs, domestic renewable energy systems and lifestyle change.
- Raised awareness of the various grant schemes available to help householders implement various energy efficiency measures, e.g. Low Carbon Buildings Program and Warm Front.
- Created a replicable model that could easily be rolled out to other towns and cities to inspire widespread change through peer-to-peer interaction.
- Creation of a network of householders in Brighton & Hove who have experience of renovating different property types to save energy, carbon and money.
- Energy and carbon saving through the pledges made as outlined below.

- Provided work experience for a masters degree student from Southampton University, who helped co-ordinate the weekends and then collated and analysed all of the feedback forms.
- Participating Eco Open Houses were given an Effergy Smart Meter, five more were given out as a prize incentive to those who completed feedback forms and one to a volunteer. These worked well as a tool for demonstrating real-time electricity consumption.
- A repeat event is planned for 2009 as all the householders found the event a very positive experience and are happy to participate again. A further 28 households indicated in the feedback forms that they would be happy to participate as well, 16 of which are in Brighton and Hove.



Image: Mayor Councillor Gary Peltzer Dunn opens Eco Open Houses 2008

Acknowledgements

The Householders for kindly opening their doors to the many visitors

The Volunteers for showing the visitors around the Eco Open Houses

Terry Robinson for collating all the information from the pledge and feedback forms

Francesca Iliffe of Brighton and Hove City Council for being part of the core team and project managing Eco Open Houses

Bryn Thomas of Brighton Permaculture Trust for being part of the core team and making the project a success

Caroline Schofield of Brighton Permaculture Trust for being part of the core team and managing volunteers

Mischa Hewitt of the Low Carbon Trust for being part of the of the core team, writing technical reports on the Eco Open Houses and managing press and publicity

Julian Howell for designing the website, brochure and exhibition

Brighton and Hove City Council Planning department for designing the map for the brochure

Legal & General for kindly supporting Eco Open Houses, special thanks to Mark Pollack

SEERA for kindly supporting Eco Open Houses, special thanks to Lesley van Dijk

SEEDA for kindly donating the smart meters

Duncan Baker-Brown for the pledge form outline and tour of 5 Dyke Road Avenue

Pooran Desai for the tour of One Brighton

Introduction

This evaluation and monitoring report is aimed at enabling successful replication of the Eco Open Houses event in Brighton and possibly other areas. The report shows the resources that were used in the project, the materials produced and their effectiveness in communicating the messages of energy efficiency, water conservation and inspiring the visitors of the Eco Open Houses to implement similar measures in their own houses. Some of the sections provide technical detail.

The report is divided into a number of sections, and starts with a definition of 'eco houses' and the criteria used to recruit the houses for the project. It states the project aims and methodology and reviews the number of visitors and the pledges that they made to reduce energy, carbon dioxide emissions and water use in their own homes. The communications section summarises the website statistics, evaluates the way that the visitors heard about the project and shows the articles that were reported across a wide range of media. A full financial breakdown is provided.

The outcome and analysis section looks at the pledges made by the visitors and shows the methodology used for calculating the potential reductions in energy use and carbon dioxide emissions. It presents the visitors' feedback on each of the houses in terms of the following questions:

“Did you learn anything from this eco open house?”

“Were the sustainability features adequately explained in this eco open house?”

“Was the handout useful for this eco open house?”

“Has this eco open house inspired you to make changes in your own house?”

Finally, the comments from the organisers, householders, volunteers and visitors are included.

The appendices show the demographics of the visitors, the pledge and feedback form, links to online media articles, and the assumptions behind the energy and carbon dioxide reductions.



Image: 5 Dyke Road Avenue – renovated 1950's villa

Eco Houses

Mention eco houses and most people will picture a fresh new house surrounded by beautiful rolling verdant countryside. Certainly there are eco houses like this, and all new buildings can be built to very high environmental specifications, but most people in the UK live in older properties in towns and cities. In Brighton and Hove, 69% of homes were built before 1939. These buildings are very inefficient and have the highest energy use for space and water heating, and so improving their energy performance is a priority. Many of the homes built in the last 40 years have poor energy performance as well.

Some eco houses look modern in design, whilst others are traditional. Some are newly built, whilst others have been 'eco renovated'. Some look strikingly unusual while others, dare we say, look quite ordinary. So what makes them 'eco' houses? The answer is simply that in all of them the owners or builders have taken effective measures to reduce the buildings' negative environmental impact. Some of the properties have south-facing windows & some have solar panels to harvest the sun's energy. Others have simpler but equally effective measures like double-glazing, draft proofing, blinds, thick curtains and lots of insulation.

The criteria that the Eco Open Houses in Brighton & Hove demonstrated were:

- **Energy** – through energy efficiency measures, insulation beyond building regulations, renewable energy such as photovoltaics, solar thermal water heating, biomass boiler. Alternatively, passive solar design, where natural heating, ventilation or cooling are designed in.
- **Water** – such as rainwater harvesting, greywater reuse or recycling (reusing used water from the house), or water efficiency measures in the home such as low flush toilets or aerated taps and showers.
- **Materials** – innovative use of recycled or reused materials, natural materials, sustainably sourced materials.
- **Green roofs or walls** – using plants to cool and insulate and encourage biodiversity.



Image: Smart House – passive solar new build house



Image: Southdown Avenue – retrofitted Edwardian house

Project Aims

The Eco Open Houses project had a number of local and regional aims.

Local aims:

- To raise awareness of how to improve the environmental performance of homes in Brighton & Hove, through the use of low impact materials in construction, energy efficiency and water conservation.
- To enable residents to have a greener lifestyle by demystifying sustainable technologies, through visiting practical professional and DIY examples of 'eco-homes'.
- To demonstrate proven energy savings in new-build and refurbished houses in Brighton & Hove.
- To run and produce materials for an Eco Open Houses pilot weekend with the possibility of holding another event in 2009, and to describe an easily replicable model that could be used elsewhere.
- To build up a database of eco-home case studies in Brighton & Hove.

Regional aims:

- To reduce the carbon footprint of the Southeast.
- To build capacity and skills
- To empower individuals and professionals
- To lift people out of fuel poverty
- To provide accessible information for eco buildings/energy efficiency
- To reduce water consumption
- To reduce waste
- To promote the sustainable use of resources

Methodology

- To facilitate a series of Eco Open House's over one or two weekends in summer 2008 whereby the sustainability features of 5 to 20 local houses will be opened up to the public.
- The houses will promote a wide range of energy efficiency, carbon saving and water conservation measures and will generally reflect holistic green low carbon lifestyles, including food and transport.
- The www.ecoopenhouses.org website will be created as an ongoing online resource.
- Interpretation material will be available for each house, with a report detailing the approach taken and showing the actual energy saving.
- The case studies will be published as a booklet, made available for free download from the website. The booklet will be printed on recycled paper using vegetable-based inks.
- A public display of the Eco Open Houses will be created for use during and after the Eco Open Houses event.
- There will be a launch event to raise the profile of the project.

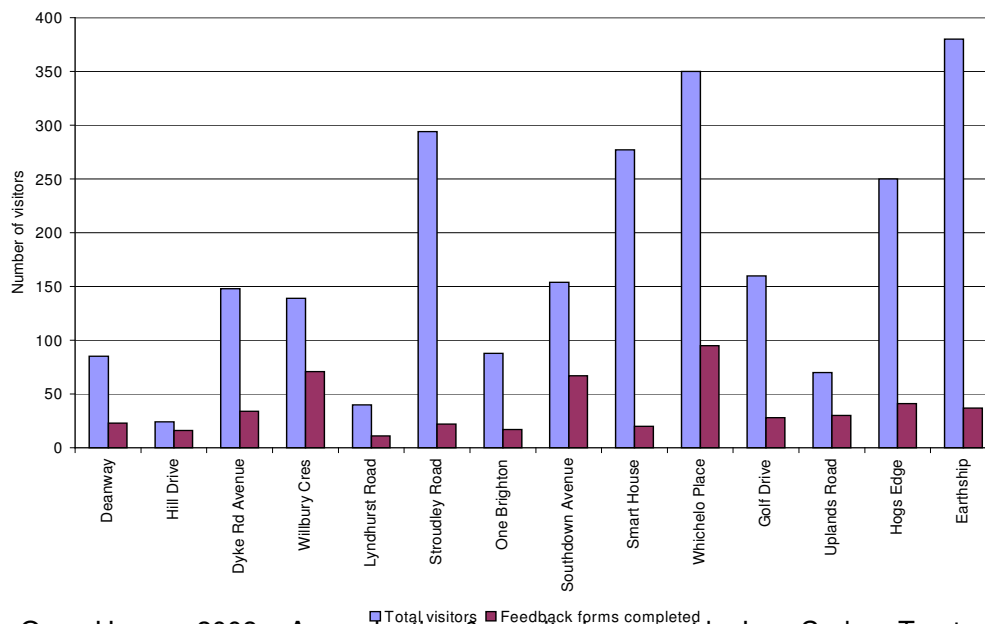
Visitor numbers, pledge & feedback forms

The Eco Open Houses received 2,459 visitors over the two weekends, 1,310 during the 28/29th June and 1,149 during 05/06th July, and 512 feedback forms and 273 pledge forms were returned. The busiest times were the afternoons of the first weekend, with 501 and 402 visitors on the Saturday and Sunday respectively. The table below summaries the numbers of visitors over the two weekends, and the graph shows the total number of visitors and completed feedback forms for each house. The two pie charts show the number of visitors to each house as a percentage of overall visitors and the percentage of feedback forms completed for each house.

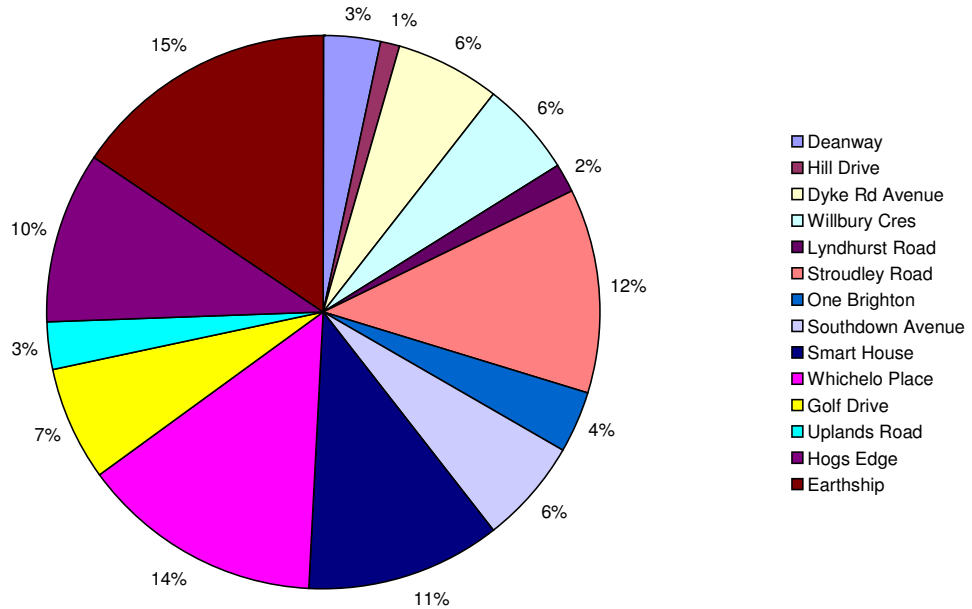
Table: Visitors to the Eco Open Houses

House	Sat 28 th June		Sun 29 th June		Sat 05 th July		Sat 06 th July		Total
	Am	Pm	Am	Pm	Am	Pm	Am	Pm	
Deanway	35	-	50	-	-	-	-	-	85
Hill Drive	-	24	-	-	-	-	-	-	24
Dyke Rd Avenue	-	-	-	-	-	148	-	-	148
Wilbury Crescent	40	-	35	-	30	-	34	-	139
Lyndhurst Road	15	10	15	-	-	-	-	-	40
Strudel Road	40	20	35	27	45	40	47	40	294
One Brighton	-	-	-	-	48	-	40	-	88
Southdown Avenue	-	-	-	-	71	-	-	83	154
Smart House	-	277	-	-	-	-	-	-	277
Whichelo Place	-	-	-	-	90	80	100	80	350
Golf Drive	-	80	-	80	-	-	-	-	160
Uplands Road	7	15	10	15	1	5	6	11	70
Hogs Edge	95	75	30	50	-	-	-	-	250
Earthship	-	-	-	230	-	-	150	-	380
Total	232	501	175	402	285	273	377	214	2459

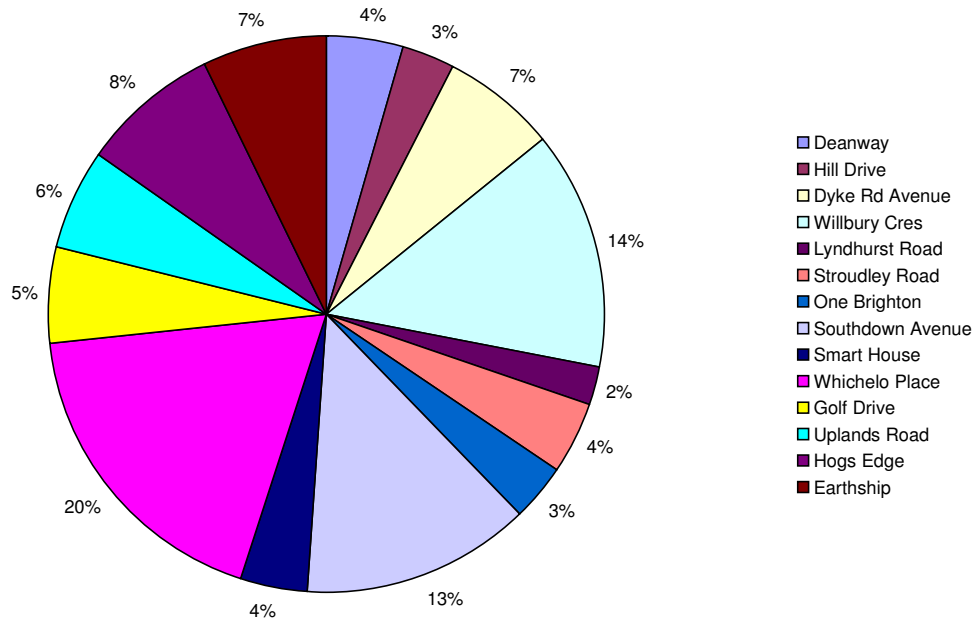
Graph: Visitors to the Eco Open Houses and feedback forms completed



Pie chart: Percentage of visitors to each house



Pie chart: Percentage of visitors to each house who completed feedback forms



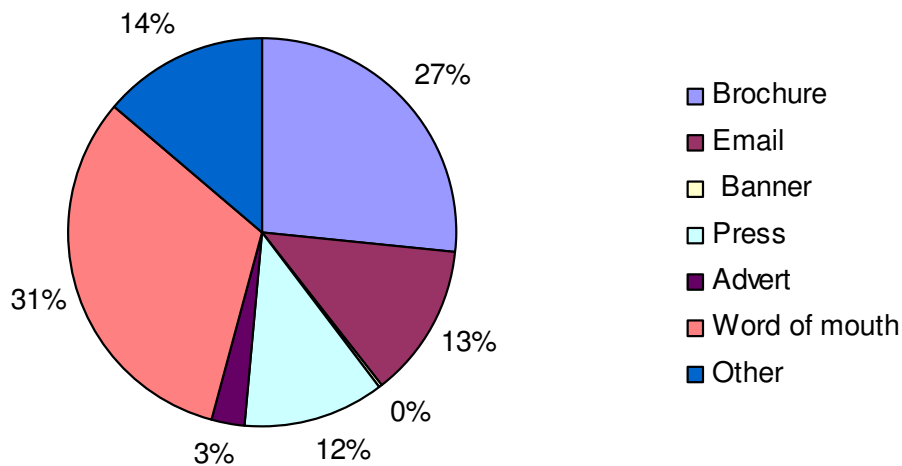
Communications

Summary:

The project was publicised through a dedicated website, a 28-page full-colour brochure, an exhibition, an advert in the Artists Open Houses Brochure, a banner outside of the Peace and Environment Centre by Brighton Station, and press releases.

From the feedback forms, the majority of people heard about Eco Open Houses by word of mouth (31%) or by picking up a brochure (27%). Email contact informed 13% of the visitors and press activity reached another 12%. The least effective methods of communication were the Artists Open Houses advert (3%) and the Eco Centre banner (0.2%). The pie chart below summarises where people first heard about the event. 'Other' includes a google search, hearing radio interview and seeing a banner outside one of the houses.

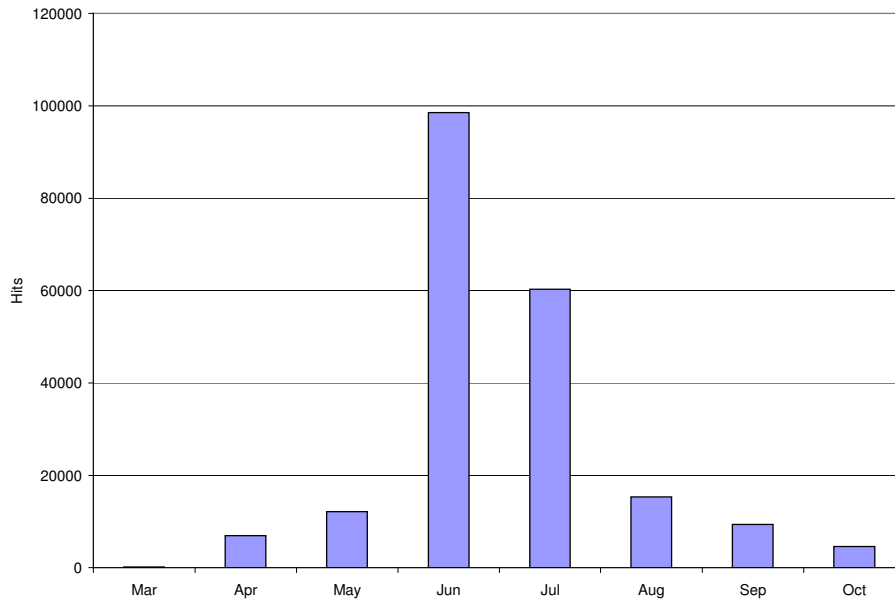
Pie chart: Percentage breakdown of where people heard of Eco Open Houses



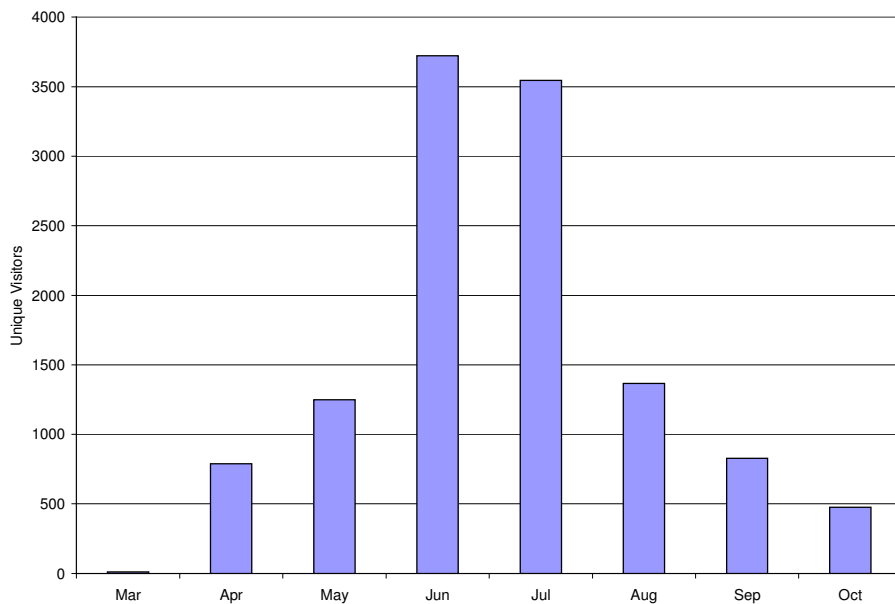
Website

The Eco Open House website www.ecoopenhouses.org was launched in late March 2008. It received over 200,000 hits between March and October 2008 and had 12,000 unique visitors, as summarised in the two graphs below. From the feedback forms, 52% of visitors said the website was “good” or “excellent”, whilst 43% “hadn’t seen it”.

Graph: Hits on Eco Open Houses website



Graph: Unique visitors to Eco Open Houses website



Eco Open House Brochure

A 28-page full-colour brochure was designed, describing the houses in detail. The brochure can be downloaded from www.ecoopenhouses.org. From the feedback forms, 84% of visitors said the brochure was “good” or “excellent”, whilst 7% “hadn’t seen it”.

Exhibition

An exhibition of 10 panels outlining the event and detailing 6 of the houses was created for the Eco Open Houses launch event on 20th June 2008 and then was displayed at Hove Town Hall for two weeks around the time of the event. The exhibition was also displayed at the Green Wave event on the 5th and 6th of July 2008, Earthship Brighton during the Stanmer Organics Open day on 20th September 2008, RIBA & the Low Carbon Trust’s Housing Retrofit conference on 11th November 2008 and Brighton Permaculture Trust’s Green Architecture Day on 19th April 2009. There have been requests for it to be displayed at other community events.

Media coverage

There were 23 articles across a range of media: 2 on TV, 5 on the radio, 6 internet articles, 3 broadsheet articles, 6 articles in the Sussex press and 1 magazine article. The table below summarises media activity. For a list of website links to articles see the Appendix.

Media	Item/Journalist	Date
Sussex Press	The Argus – Sarah Lewis	12 April 2008
Radio	BBC Southern Counties – Sid Sloane	28 April 2008
Sussex Press	City News	June 2008
Radio	BBC Solent – Georgina Windsor	22 June 2008
Sussex Press	Latest Homes - Robert Nemeh	24 June 2008
Internet	Findaproerty.com – Nikki Sheenan	24 June 2008
Internet	PropertyInvesting.net	24 June 2008
Internet	Buildingopinions.com	25 June 2008
Radio	BBC Southern Counties – Suzanne Bamborough	28th June 2008
Sussex Press	Argus – Ruth Morgan	01 July 2008
Radio	Radio Reverb – Jeff Hemmings	04 July 2008
Broadsheet	The Observer – Karen Dugdale	06th July 2008
Self Build & design	Louise Parkin	July 2008
Sussex Life	Nancy Cremore	July 2008
Magazine & Internet	Peace News	July/August 2008
Internet	www.newbuilder.co.uk	07 July 2008
Internet	www.treehugger.com/	07 July 2008
Broadsheet	International Herald Tribune – Elizabeth Rosenthal	15 July 2008
Broadsheet	New York Times – Elizabeth Rosenthal	20 July 2008
Sector Press	Footprint Magazine	July / August 2008
TV	British Satellite News	08 August 2008
TV	CBS News – Richard Roth	November 2008

Note: Eco Open Houses did not employ a media tracking service

Finance

The full budget is set out below:

Promotional development of website, brochure, etc

Advert in Artists Open House brochure (half page)	£495.00
Brochures x 20,000	£7,000.00
Banners for houses	£750.00
Banner for Eco Centre	£200.00
Postcard x 10,000	£160.00
Logo design	£100.00
Website design	£2,000.00
Advert half page A5 for Open Houses brochure	£65.00
Interpretative panels for exhibition	£1,500.00
Cost of domain name	£14.00
Maintenance / update of website for 1 year	£600.00
Webpace & domain name purchase	£17.95
Photographer for images for promotional material & on day	£500.00
Low Carbon Trust press activity	£600.00
Low Carbon Trust technical house reports	£1,125.00

Insurance: public liability

Under Council insurance policy	£0.00
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Core Costs

BPT budget handling, admin, support for houses, telephone	£1,500.00
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Exhibition

Venue hire – Hove Town Hall	£0.00
Display materials (printing exhibition boards):	£680.00

Launch Event

Venue hire – Fabrica	£1,000.00
Catering	£1,020.00

Closing Event

Venue hire – Earthship Brighton	£0.00
Transport costs - Hire of Big Lemon (bus)	£300.00
Catering	£925.00

Grand total	£20,551.95
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Note: Some figures are inclusive of VAT at 17.5%

Outcomes and analysis

Potential Energy & Carbon Saving

Each of the brochures and the feedback forms had a pledge attached to them for the visitors to reduce heat demand, electrical demand and water use.

The pledges for reducing heat demand included turn heating down 2°C, wearing an extra jumper rather than turning up the heating, turning off radiators in unoccupied rooms, using heavy curtains to keep heat in, not using heating when people are out, taking showers instead of baths, checking that the boiler is running efficiently, replacing an old boiler with a more efficient one, cavity wall insulation, loft insulation, under-floor insulation, under-floor heating and solar thermal energy equipment.

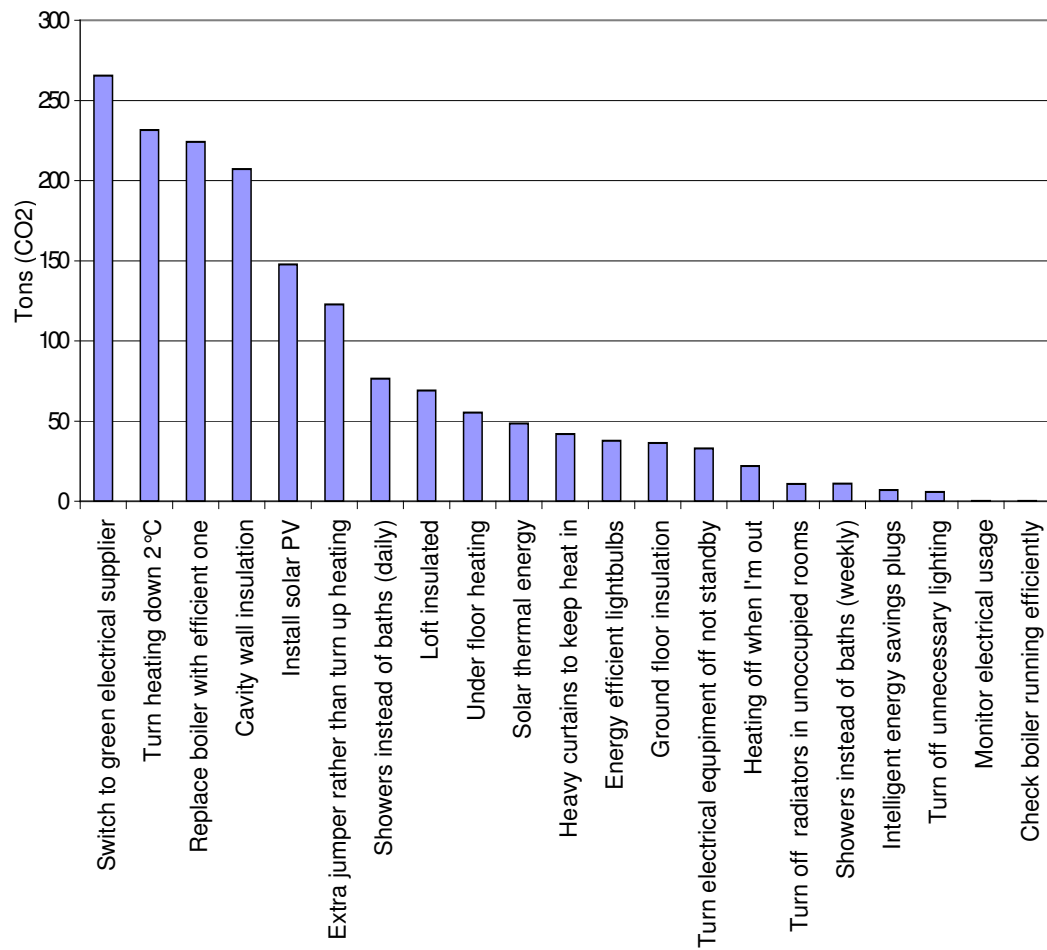
The pledges for reducing electrical demand included turning off unnecessary lighting, turn off electrical equipment rather than leaving it on standby, monitoring electricity usage, replacing incandescent light bulbs with energy-efficient ones, using intelligent energy savings plugs, and installing photovoltaic panels.

Terry Robinson, a MSC degree student from Southampton University, logged all of the pledge forms and created a methodology to translate the pledges into figures for energy, carbon and money saved if all the measures were adopted. We used a variety of figures for energy saving from the different measures taken from the Energy Savings Trust and www.carboncalculator.com. From these sources if all the people fulfil their pledges, 9.5 MWh of heat and 310,000 kWh electricity will be saved over the three years.

The corresponding CO₂ savings are 1,000 tCO₂ within a year, with an additional 335 tCO₂ after the first year and a further 300 tCO₂ by the third year. In total over three years this would save just under 4,000 tCO₂ and the financial saving would be around £475,000 in heating and £31,000 in electricity. These figures were calculated using the price £0.05 per kWh for heating and £0.12 per kWh for electricity.² All of the reductions were calculated from the pledge forms and were not scaled up to factor in the proportion of visitors who did not complete pledge form, but may have been inspired to make change. The rate of return for pledge forms was 11%. The graph below summarises the carbon reductions that could be realised if the visitors complete their pledges.

² For the assumptions behind the calculations please see Appendix 6

Graph: CO₂ reduction from Eco Open House pledges



House reports

This section presents the feedback of the visitors to each of the Eco Open Houses. The format of the reports on each house is:

Address and website (if applicable) of the Eco Open House

Overview – providing details of the age/period of the house, type of house, years in residence of the current occupiers, number of bedrooms and other rooms, number of floors and the basic wall type of the property

Key features – the key energy efficiency measures, water conservation measures and building materials are outlined

Number of visitors – the distribution of visitors over the two weekends is shown

Response of visitors – the feedback from the visitors to the four questions:

“Did you learn anything from this eco open house?”

“Were the sustainability features adequately explained in this eco open house?”

“Was the handout useful for this eco open house?”

“Has this eco open house inspired you to make changes in your own house?”

Detailed technical reports on the energy efficiency and water conservation measures in each of the houses can be found at www.ecoopenhouses.org

Eco Open House No 1: 15 Deanway, Hove BN3 6DG

Overview:

Age/period of house:	1976
Type:	Detached house
Years in residence:	13
No of bedrooms:	4
No of other rooms:	3
No of floors:	2
Wall type:	Cavity



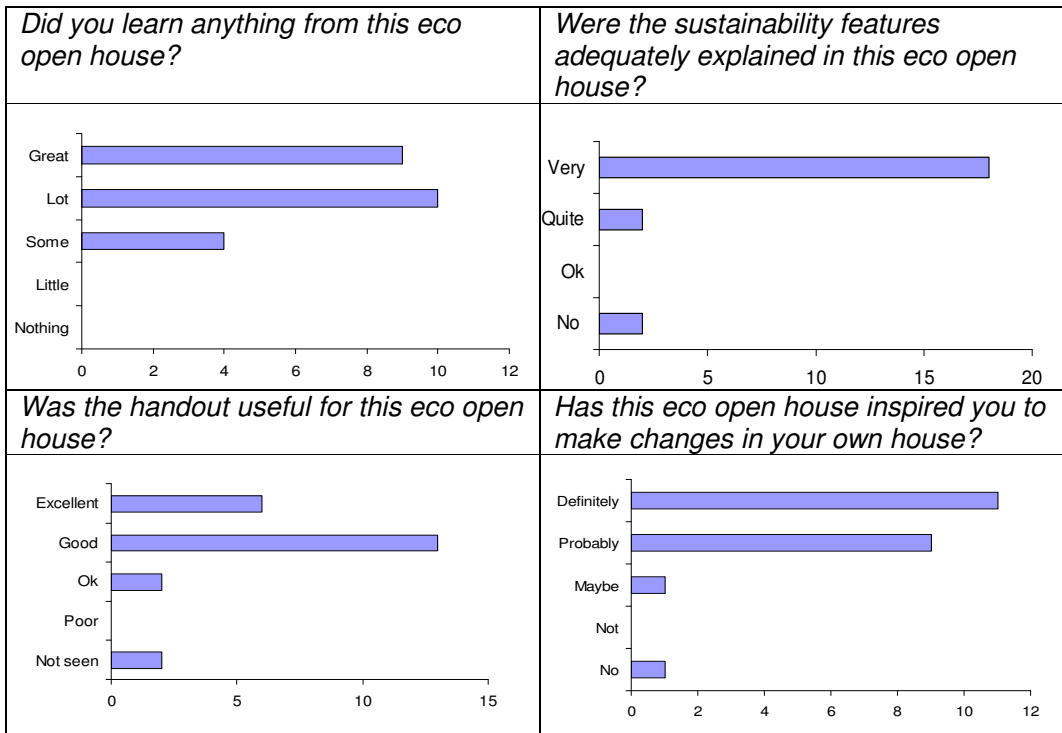
Key features:

Insulation, solar thermal, rainwater harvesting, energy efficiency measures, bio diesel, water conservation

Number of visitors:

	AM	PM	Total
28th June	35	-	35
29th June	50	-	50
Total			85

Responses from visitors:



Eco Open House No 2: Hove (address withheld)

Overview:

Age/period of house:	Edwardian
Type:	Detached house
Years in residence:	20
No of bedrooms:	5
No of other rooms:	4
No of floors:	3
Wall type:	Cavity

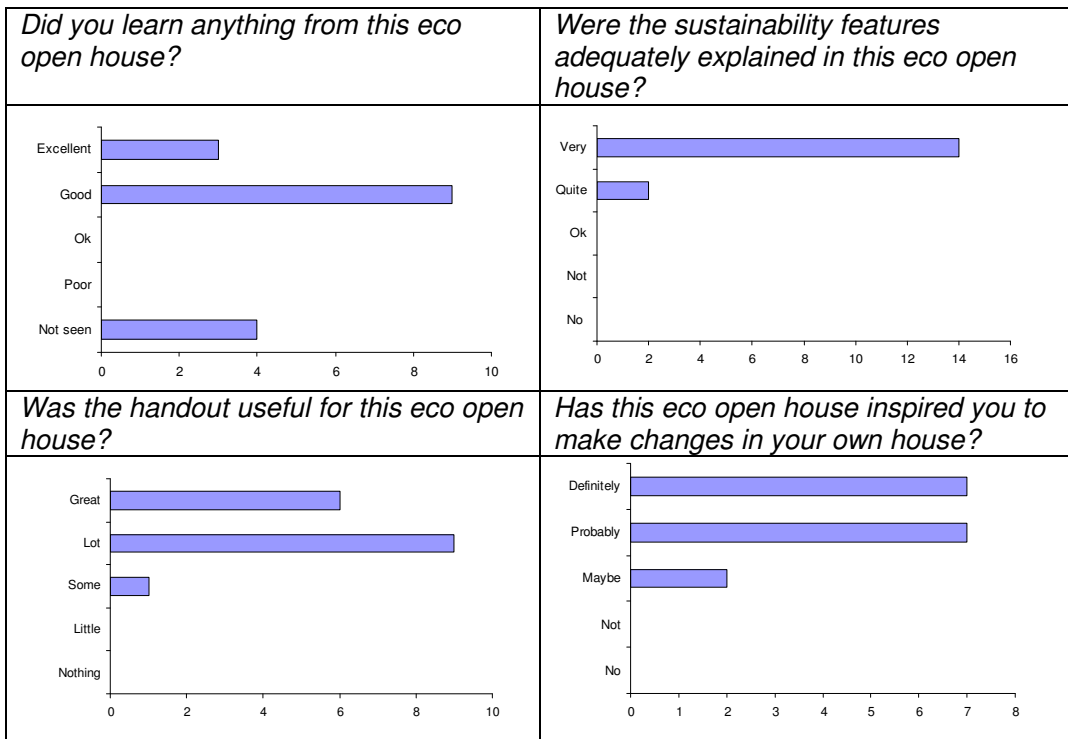
Key features:

Condensing boiler, heating controls, solar thermal, garden irrigation system

Number of visitors:

	AM	PM	Total
28th June	-	24	24
Total			24

Responses from visitors:



Eco Open House No 3: 5 Dyke Road Avenue, Brighton BN3 6QA

Overview:

Age/period of house:	1950's
Type:	Detached house
No of bedrooms:	3 / 4
No of other rooms:	10
No of floors:	3
Wall type:	5 different types
Cost of refurbishment:	£250,000



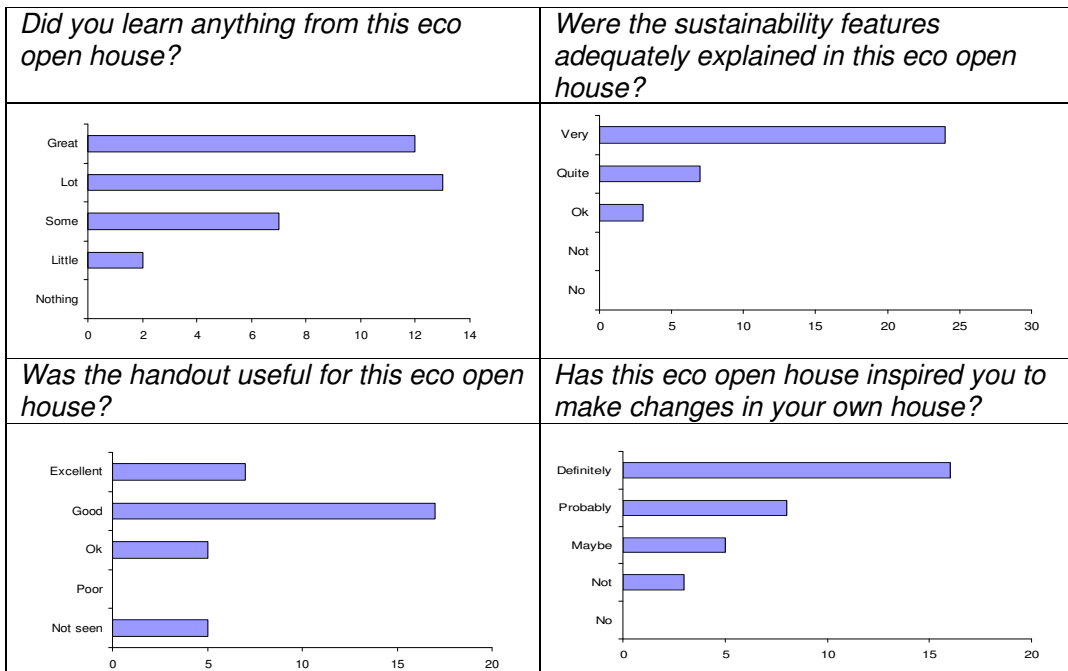
Key features:

Sweet chestnut cladding, underfloor heating, live/work unit, recycled newspaper insulation, organic paints, clay plaster

Number of visitors:

	AM	PM	Total
05 th July	-	148	148
Total			148

Responses from visitors:



Eco Open House No 4: 73 Wilbury Crescent, Hove BN3 6GH

Overview:

Age/period of house:	Edwardian – 1907
Type:	Terraced house
Years in residence:	23
No of bedrooms:	4
No of other rooms:	5
No of floors:	2
Wall type:	Cavity
Cost of measures:	£4,442.00



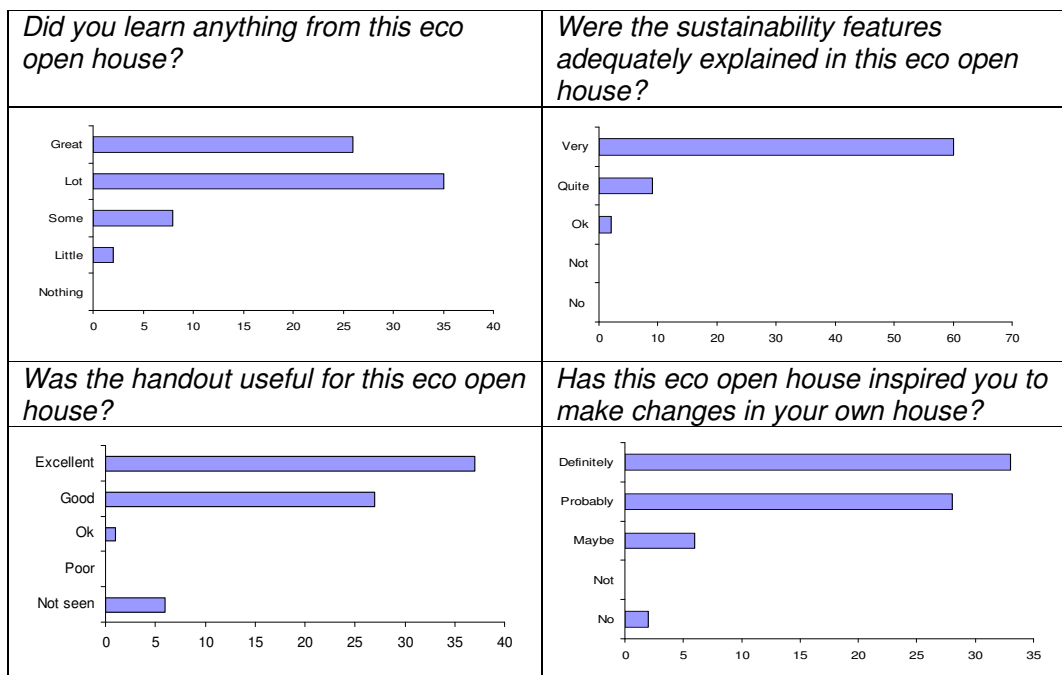
Key features:

Insulation, solar thermal, rainwater harvesting, energy efficiency measures, bio diesel, water conservation

Number of visitors:

	AM	PM	Total
28th June	40	-	40
29th June	35	-	35
05th July	30	-	30
06th July	34	-	34
Total			139

Responses from visitors:



Eco Open House No 5: 25 Lyndhurst Road, Hove BN3 6FB

Overview:

Age/period of house:	1910
Type:	Terraced house
Years in residence:	9
No of bedrooms:	4
No of other rooms:	4
No of floors:	3
Wall type:	Solid



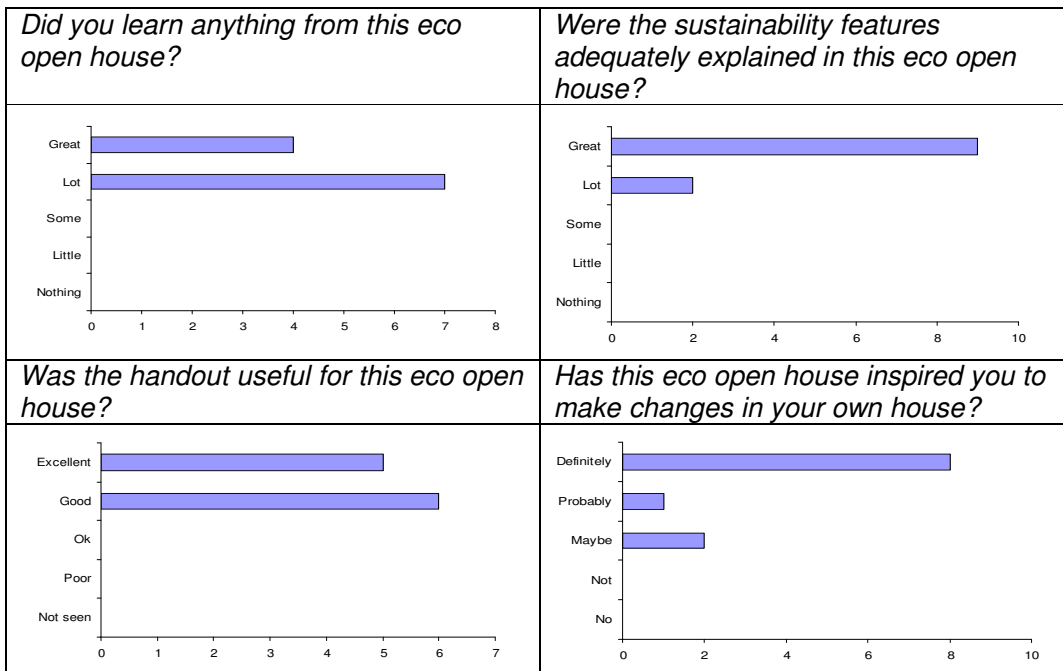
Key features:

Solar thermal, insulation

Number of visitors:

	AM	PM	Total
28 th June	15	10	25
29 th June	15	-	15
Total			40

Responses from visitors:



Eco Open House No 6: 38 Gladstone Row, Stroudley Road, Brighton BN1 4GT

Overview:

Age/period of house:	2008
Type:	Terraced house
Years in residence:	N/a
No of bedrooms:	3
No of other rooms:	4
No of floors:	3
Wall type:	Cavity



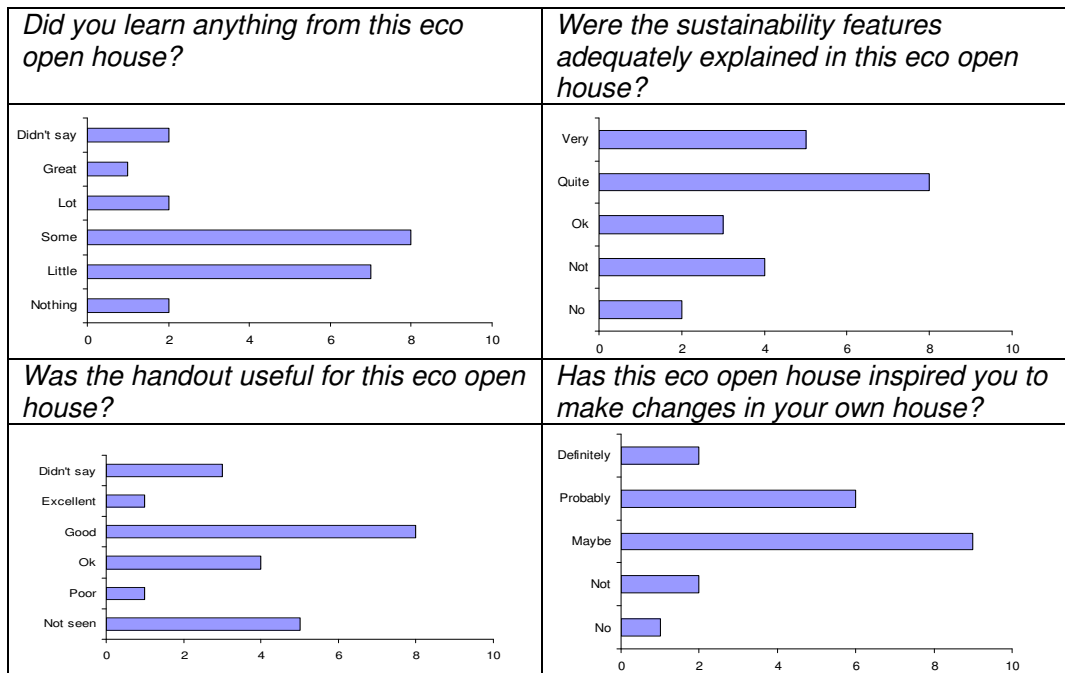
Key features:

Ecohomes ‘excellent’ standard, solar thermal, energy efficient, rainwater harvesting, green walls, car club

Number of visitors:

	AM	PM	Total
28 th June	40	20	60
29 th June	35	27	62
05 th July	45	40	85
06 th July	47	40	87
Total			294

Responses from visitors:



Eco Open House No 7: One Brighton, New England Street, Brighton BN1 4GH

Overview:

Age/period of house:	2008
Type:	Apartment
Years in residence:	N/a
No of bedrooms:	Varies
No of other rooms:	Varies
No of floors:	1
Wall type:	Clay block



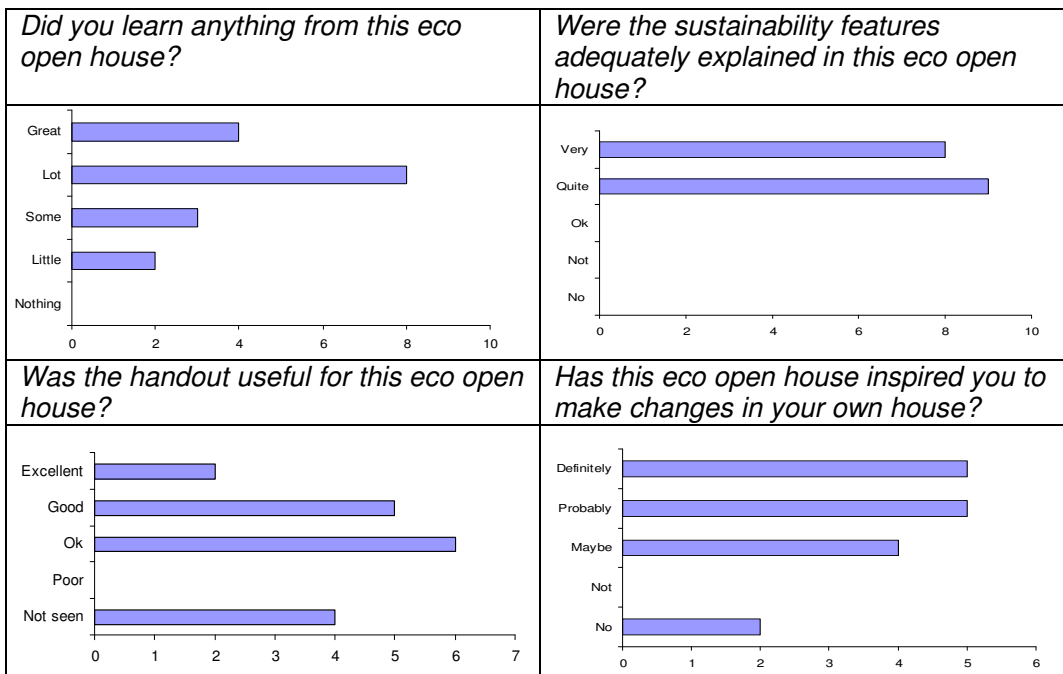
Key features:

Zero carbon in energy use, triple glazing, biomass heating and hot water, photovoltaic panels, mechanical ventilation system with heat recovery, breathable clay block walls, sustainably-sourced timber

Number of visitors:

	AM	PM	Total
05 th July	48	-	48
06 th July	40	-	40
Total			88

Responses from visitors:



Eco Open House No 8: 6 Southdown Avenue, Brighton BN1 6EG

Overview:

Age/period of house:	Victorian - 1887
Type:	End-of-terrace house
Years in residence:	2.5
No of bedrooms:	4
No of other rooms:	5
No of floors:	3
Wall type:	Solid



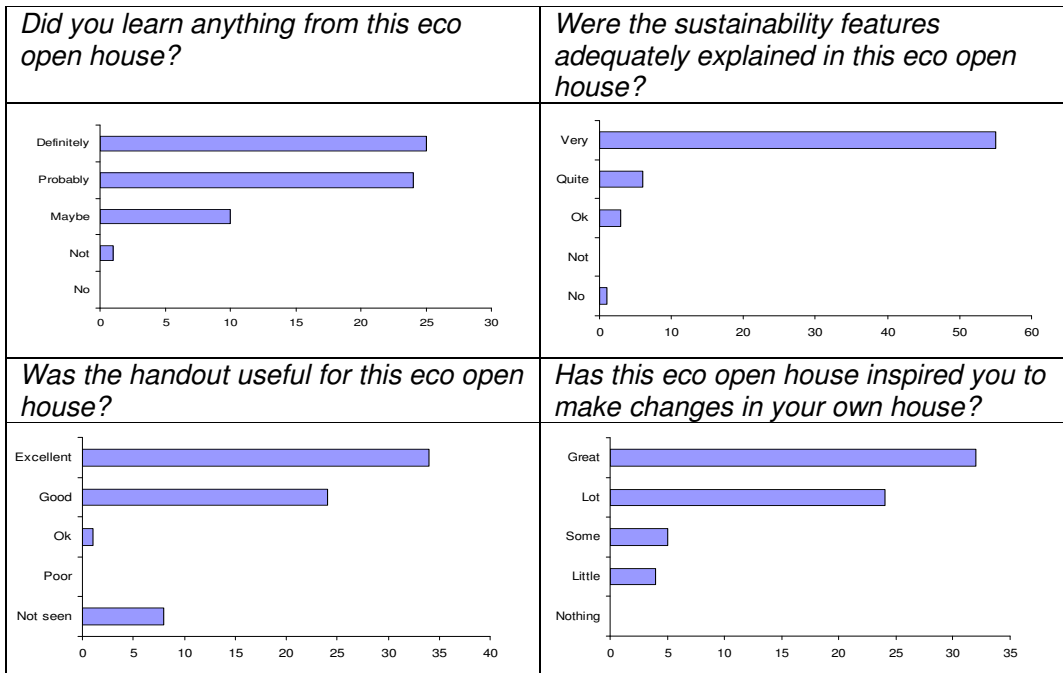
Key features:

Internal wall insulation, condensing boiler, solar thermal, high-performance glazing, radiant wall heating, energy controls, wood stove, low-energy cooking

Number of visitors:

	AM	PM	Total
05 th July	71	-	71
06 th July	-	83	83
Total			154

Responses from visitors:



Eco Open House No 9: Smart House, Ditchling Road, Brighton BN1 4SE

Overview:

Age/period of house:	2003
Type:	Detached bungalow
Years in residence:	Rented
No of bedrooms:	2
No of other rooms:	3
No of floors:	1
Wall type:	Solid



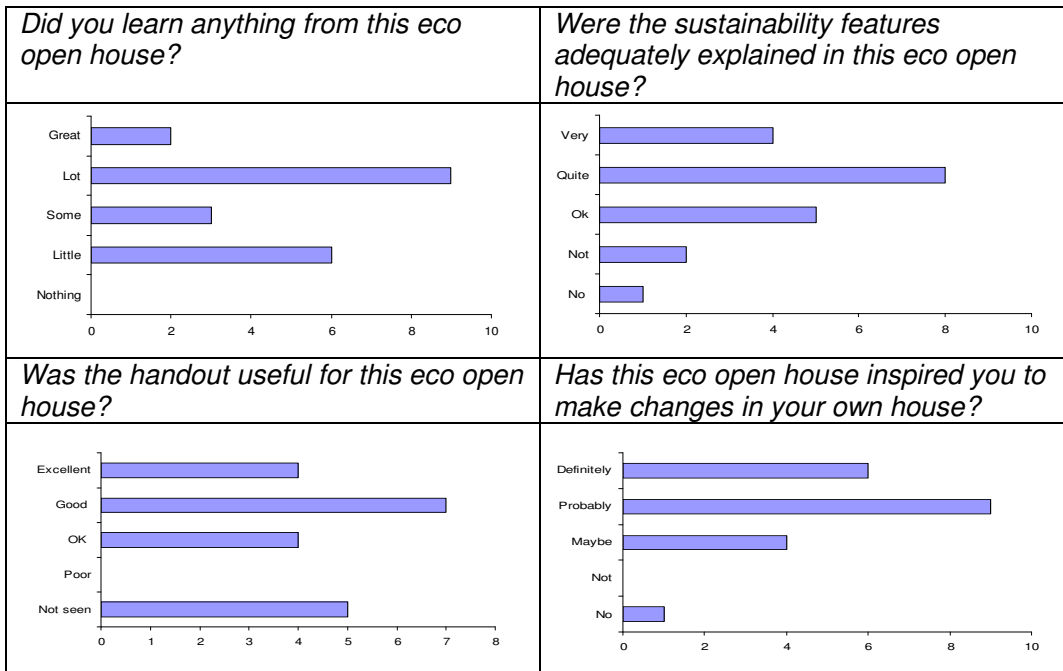
Key features:

Passive solar design, thermal mass, super insulation, photovoltaic panels, solar thermal, underfloor heating, passive ventilation, green roof, rainwater harvesting

Number of visitors:

	AM	PM	Total
28 th June	-	277	277
Total			277

Responses from visitors:



Eco Open House No 10: 1a Whichelo Place, Brighton BN2 9XE

Overview:

Age/period of house:	2007
Type:	Detached bungalow
Years in residence:	1
No of bedrooms:	2
No of other rooms:	3
No of floors:	1
Wall type:	Timber frame
Cost of construction:	£200,000



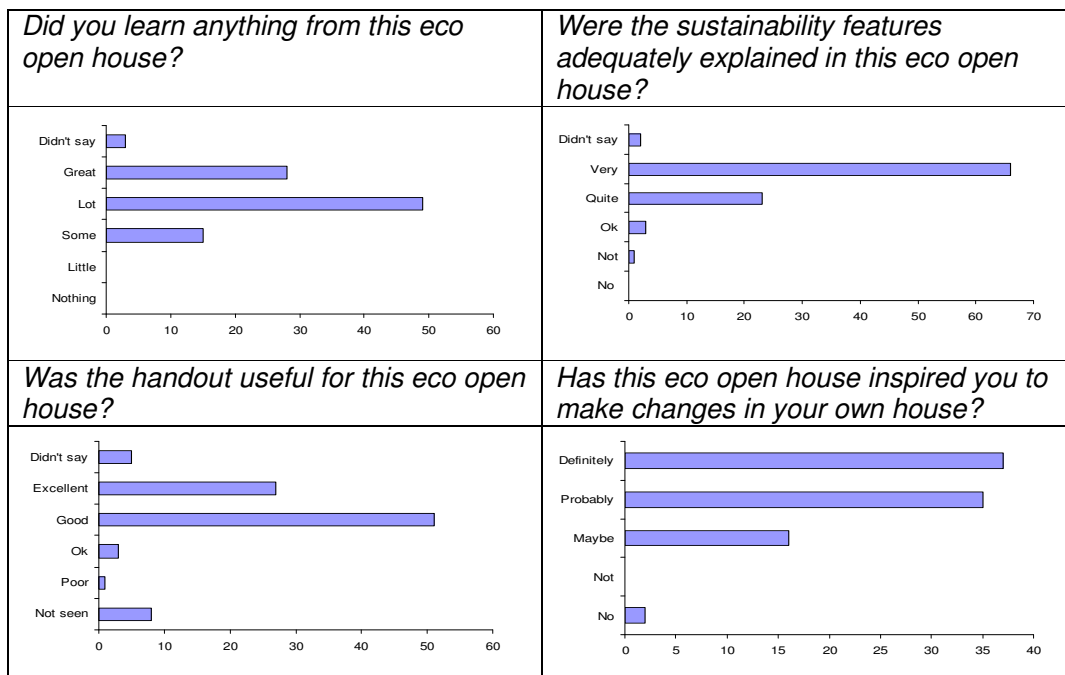
Key features:

Timber frame, solar thermal, sheep’s wool insulation, condensing boiler, greywater system, green roof

Number of visitors:

	AM	PM	Total
05th July	90	80	170
06th July	100	80	180
Total			350

Responses from visitors:



Eco Open House No 11: Dryad Housing Co-op, 42 Golf Drive, Brighton BN1 7HZ

Overview:

Age/period of house:	1990
Type:	Semi-detached bungalow
Years in residence:	5
No of bedrooms:	1
No of other rooms:	2
No of floors:	2
Wall type:	Timber frame



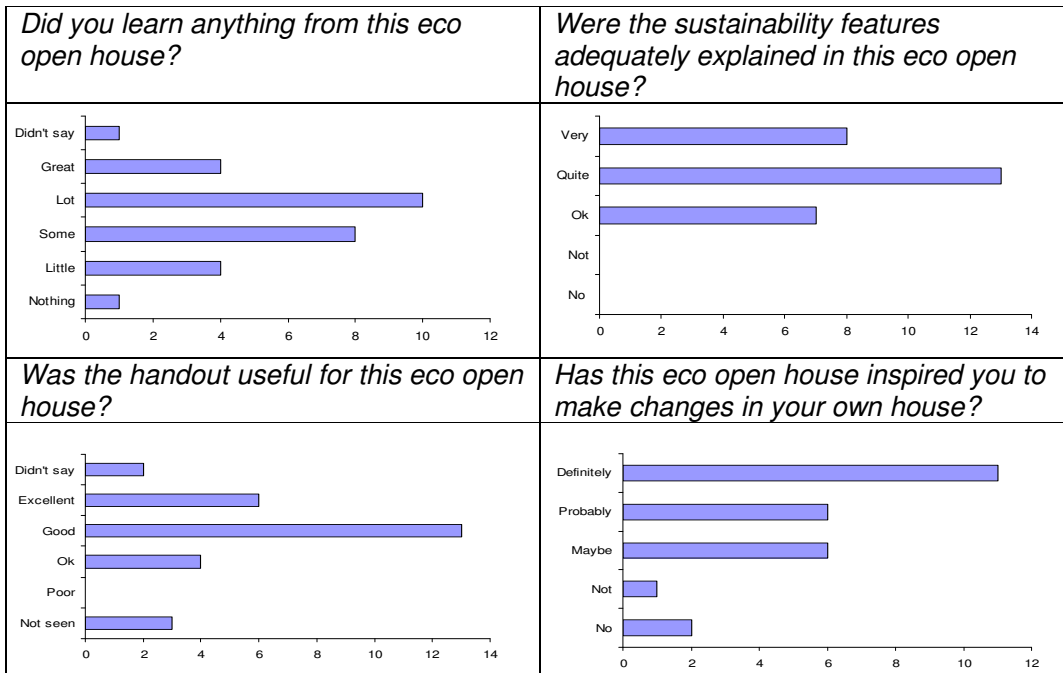
Key features:

Timber frame, biomass heating, timber frame house, tenants green policy, self build, food growing

Number of visitors:

	AM	PM	Total
28 th June	-	80	80
29 th June	-	80	80
Total			160

Responses from visitors:



Eco Open House No 12: 10 Uplands Road, Brighton BN1 7FA

Overview:

Age/period of house:	1982
Type:	Detached house
Years in residence:	23
No of bedrooms:	3
No of other rooms:	5
No of floors:	2 & mezzanine
Wall type:	Cavity

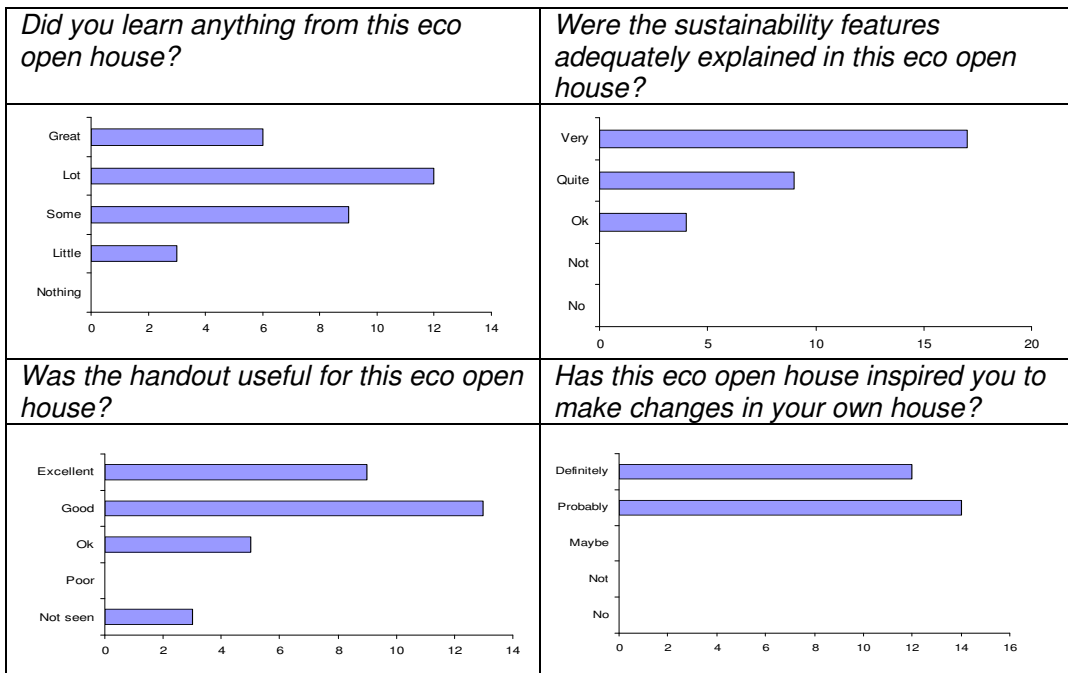
Key features:

Passive solar design, heating controls, cavity wall insulation, recycled paper insulation, water meter, efficient boiler

Number of visitors:

	AM	PM	Total
28 th June	7	15	22
29 th June	10	15	25
05 th July	1	5	6
06 th July	6	11	17
Total			70

Responses from visitors:



Eco Open House No 13: 6 Hogs Edge, Bevendean, Brighton BN2 4NQ

Overview:

Age/period of house:	2000
Type:	Detached bungalow
Years in residence:	8
No of bedrooms:	3
No of other rooms:	4
No of floors:	1
Wall type:	Timber frame/cavity



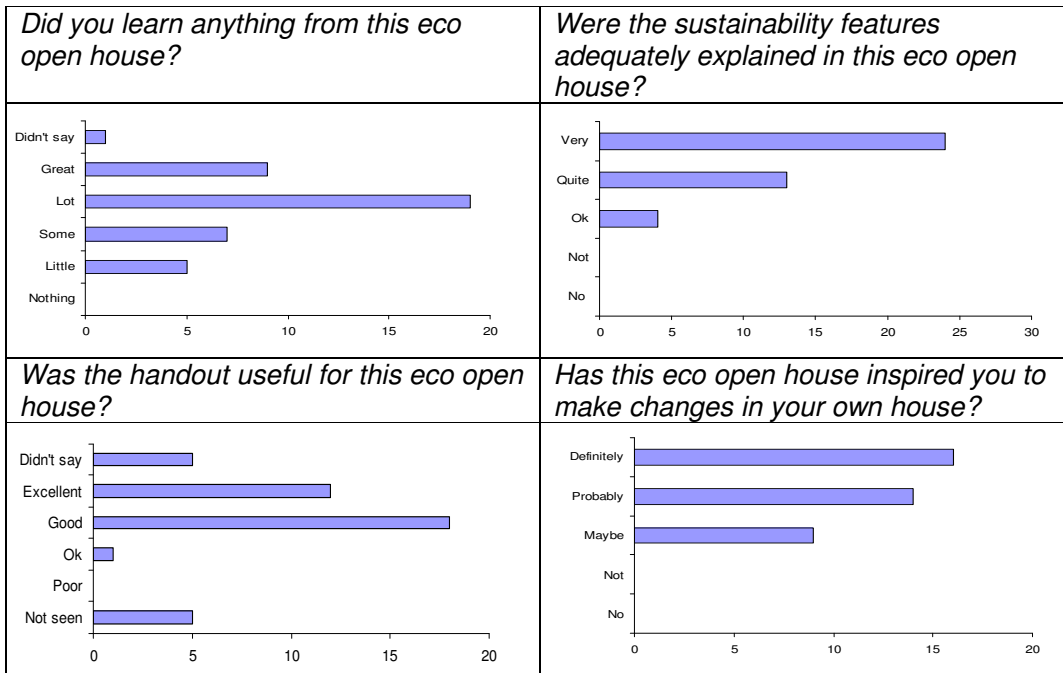
Key features:

Insulation, solar thermal, rainwater harvesting, energy efficiency measures, bio diesel, water conservation

Number of visitors:

	AM	PM	Total
28 th June	95	75	170
29 th June	30	50	80
Total			250

Responses from visitors:



Eco Open House No 14: Earthship Brighton, Stanmer Park, Brighton BN1 9PZ

Overview:

Age/period of house:	2006
Type:	Detached bungalow
Years in residence:	N/a
No of bedrooms:	N/a
No of other rooms:	5
No of floors:	1
Wall type:	Solid
Cost of construction:	£330,000



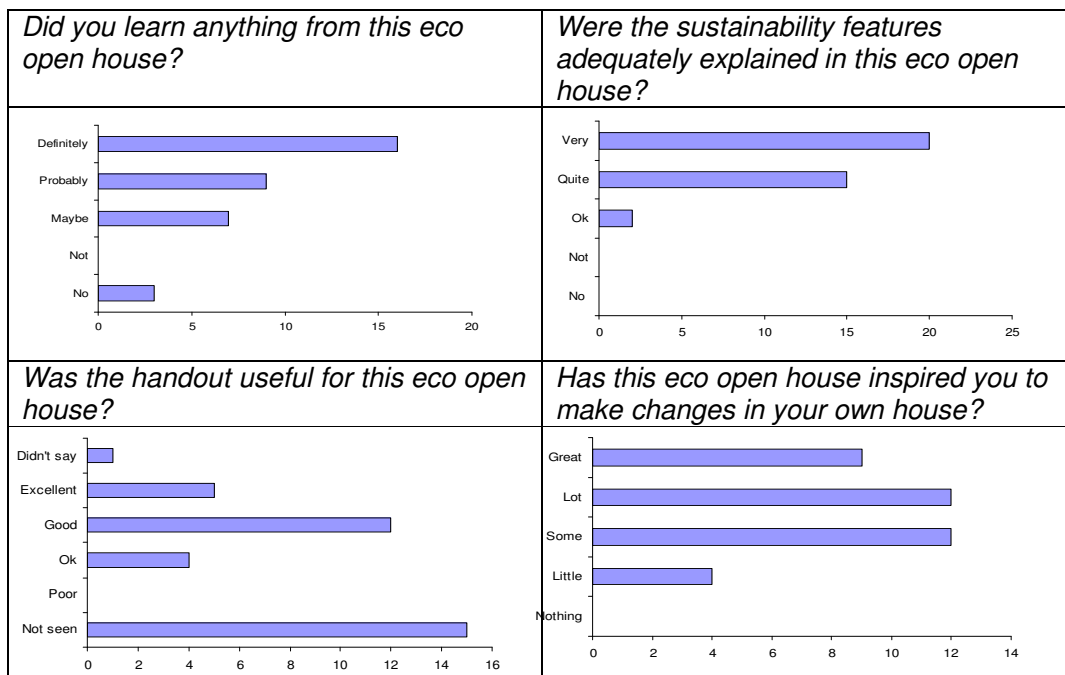
Key features:

Passive solar design, thermal mass, super insulation, photo voltaic panels, wind turbine, solar thermal panels, wood pellet stove, rainwater harvesting, greywater recycling, reed bed, low impact materials, natural ventilation, sun pipes

Number of visitors:

	AM	PM	Total
29 th June	0	230	230
06 th July	150	0	150
Total			380

Responses from visitors:



Summary of Feedback from Organisers, Householders, Volunteers & Visitors

Feedback from the Organisers

Communications

- Banner at Eco Centre – virtually ineffective, although attractive. If we were doing the event again from scratch there would be no point in having it made, but we can use it again by patching over the dates.
- Advert – nice to have, but not that effective. Dependent on funding this could be repeated in future
- Brochure – the main thing that attracted attention, and we received extremely positive feedback about it, with 84% of visitors saying it was good or excellent. Next time we should add names and faces of organisers. Page 2 needed a header. A full timetable for all the houses should be included.
- Website – 42% of visitors said they hadn't seen it. Suggestions include adding a link from www.lowcarbon.co.uk (Brighton Earthship and the Low Carbon Trust's website), easier navigation between houses, that it should have been set up earlier in the project, needed a better links page, and that a more effective online resource needed to be built.
- Press activity – should have done an official launch with the mayor a day or two before, to generate more TV coverage, as there are less crews about over the weekend. Would be good to get more national coverage in magazines and broadsheets.
- Exhibition – time consuming. The intention was to tour this, but this hasn't happened as much as it could have, although it has been at four other events. The exhibition looked beautiful at Hove Town Hall, but visitor numbers were disappointing. It would be really good to really promote this resource through community networks. A couple of the panels need updating to be more generic and 'time-proofed'.
- Awards – have entered the National Energy Efficiency Awards in the Community and Voluntary Sector category.³ Could enter the Ashden Awards next year if the event is repeated.

Houses, Householders & Volunteers

- Everyone enjoyed it.
- A few were overwhelmed by the amount of people. Could be good to put further booking systems in place, and other measures to deal with large numbers.
- Volunteers should arrive early to eat lunch and a briefing session for them is required as well. Volunteers would like to have had the opportunity to see other houses.

³ An award was won – please see executive summary

- More time needed for lunch. Better timekeeping is needed for early and late arrival of volunteers.
- Have admission times instead of opening times.
- Name badges needed for householders to easily identify them to the public.
- Volunteers should read reports on houses in advance.
- Need more energy efficiency and building professionals to support householders and volunteers.
- Guided tours worked well, great feedback from these houses.
- Use of three volunteer networks worked very well.

Feedback form

- Needs a 'do now or doing now' column.

Organisation

- Our approach enabled us to reach greater audiences. High standards were at personal cost so we need to think how we manage the event. Project could be improved, but was fantastic and potentially demonstrated considerable CO₂ savings. Have set the ball rolling here. Important that people teach other people.
- Incredibly stressful, but it was a very important project. Enjoyed working with team, people doing what they love, was inspiring and refreshing. Some regrets that we didn't figure out exact roles. Project manager role just evolved at the point the funding was offered. Underestimated size of project and resources needed to deliver it and relationships suffered. The timetable was intense, although we got through it. Very tight deadlines.

Future Eco Open Houses

- This year has set a standard for future events.
- Subsequent years – there's a blueprint and materials to draw on. We can also anticipate the amount of time needed to organise an event. We should fundraise to pay for a project manager, around £10K. Jobs/roles need to be clarified – time expected & budget.

Householder Feedback

Experience of taking part in the Eco Open Houses (feedback from 8 houses)

What did you enjoy most about taking part in this event?

- *“Taking part of an important event, promoting sustainability in the built environment.”*
- *“The feeling that I was helping others to see that something can be done with old houses”*

What did you find the most difficult/ problematic?

- *“Logistics with the number of people attending at different times and being very demanding in terms of information and answers to questions”*
- *“Not being able to see other people’s houses as I had promised all my time to opening my own. Also being open all day was a bit too much as not really enough time between for family lunch etc”*

What could be done about that for next year?

- *“Perhaps try to implement a booking system so that there is more control on the number and timing of attendees.”*
- *“Opening times to be emailed around so that the householders can see when houses they would like to see are open.”*

Comments:

- *“Enjoyed the opportunity to show what little things can be done to help reduce your impact and inspiring people with our garden, getting children to taste our different salads. Most difficult was all the housework that needed to be done before hand! And people turning up before we were open, and having to be quite firm with them to just go away and come back later! We addressed this by putting up signs saying when we were open, but some people still needed telling.”*
- *“We enjoyed meeting some very nice people, organisers, volunteers and visitors. We enjoyed learning from some of our visitors’ experiences”*
- *“The worst bit was the uncertainty before the event as to how we would cope with the ‘crowds’.”*
- *“Next time, the ‘old hands’ will know what to expect (more or less) and potential recruits will be reassured by our joint experiences when they hear about them at the Launch Event.”*
- *“Everything was fine for us.”*

- *“This is just a quick note to say that i thought the Eco Open House Event was a great success from my point of view. We had nearly 150 people at Dyke Road Avenue last weekend. It was exhausting doing 5 tours in three hours, but great fun. Thank you for being so supportive before and on the day. Also i just would like to say how professional and well organised I thought the whole event was/is. WELL DONE.”*

Communication

How well did you feel you were kept informed prior to and during the event?

- *“Very well.”*
- *“Very well.”*

On balance, would you have liked more / less email / phone / meetings?

- *“Emails are usually better”*
- *“Maybe a couple more emails - certainly for first timers - I felt like I was heading into the unknown.”*

Did you feel we provided you with enough materials (banner/case study/leaflets) to ensure the event went smoothly?

- *“Yes”*
- *“Yes”*

Comments:

- *“We felt well informed, same would be fine again, and the materials were great.”*
- *“From our perspective the communications were perfectly adequate. It must have been difficult for the organisers to be specific about detail because this was a first, with only Artists' Open Houses as a guide.”*
- *“With hindsight, any additional contact would have been superfluous, any less would have left us a little apprehensive.”*
- *“We had a replenishment of materials for the second weekend. We finished the course with very few surplus brochures (less than a dozen) and we continue to hand these out to family and friends or anyone else who expresses an interest. The Green Pages Book was in short supply and needs updating.”*
- *“It all seemed to go well.”*

Launch Party

What did you enjoy most about the Launch Party?

- *“The opportunity to meet other participants.”*
- *“The venue was great and the food was fantastic, I was unable to get round and meet all the other householders as I wasn’t sure who was who which was disappointing especially given I was unable to visit their homes as I would have liked to ask lots of questions.”*

Any suggestions for future years?

- *“Maybe introductions or name badges or householders only for the first half an hour.”*
- *“Enjoyed the launch, great food, good information, more chairs next time please!”*
- *“We enjoyed, in no particular order, meeting the organisers, sponsors, volunteers and other householders; the presentations, which showed us the wider picture; the gift of a smart meter (which we had up and running for the open days and which interested quite a few people); and, o.k. The best bit was the food and wine for which we thank you.”*
- *“It was good to have a quality newspaper journalist at the event and we were very chuffed to read the ensuing article which was published in time for the last day of the event.”*

Volunteers

Did you have enough volunteers at each period that you were open?

- *“Yes”*
- *“Yes”*
- *“Yes”*

How helpful, friendly, well informed, punctual etc. were they?

- *“Very helpful/punctual/well informed.”*
- *“Very friendly but not always informed about the house but often arrived a little bit earlier in order to get up.”*
- *“No complaints at all.”*

Did you have any difficulties with volunteers? Please make suggestions for how this could be dealt with for future years.

- *“No problems.”*
- *“We always had two, sometimes three volunteers. With family that gave us six or seven people to talk to visitors. I'm not aware that we had any real problems other than the odd technical question (which we couldn't answer) directed to us when all volunteers were already engaged with someone else. We only had one or two impatient visitors who implied that they should go to the head of the queue, so they probably weren't that interested anyway.”*
- *“All the volunteers we met were knowledgeable, interested, articulate and committed. Most arrived in good time to see and understand what we had achieved, before the door was opened to visitors.”*
- *“We had no problems, though there was a report that one volunteer was perhaps a little zealous in putting over the eco-message. Solar and wind generated electricity is a bit advanced and off-putting for the person whose interest and finances stretch only to insulation and draught proofing. So next year's volunteer briefing might include a bit about establishing the visitor's area of interest and how this or that Open House might relate to that.”*
- *“All friendly and fine.”*
- *“What a lovely collection of volunteers! Interested, interesting & committed. Refreshing to know there are so many decent people out there. If a 'critical mass' is needed to launch Brighton & Hove as a transition town then it must surely exist here!”*

Suggestions

Do you have any suggestions about how the event could be developed or improved for future years?

- *“Some people found it hard to find us even with the map, it could have been clearer. As we are so off the beaten track, some visitors suggested we have a 3rd banner at the bottom of Golf Drive.”*
- *“As mentioned above, perhaps some type of booking system.”*
- *“This time next year two things will have happened. Increased fuel charges will have been in force for a whole winter heating season, and more people (some will have been visitors this year) will have invested in energy saving strategies.”*

- *“Therefore the potential numbers of interested visitors and the numbers of properties offering to open should both have increased. If we had had to deal with any more visitors than we got this time round (35 -45 per session) we would have been in trouble.”*
- *“So the keys to a successful event next year will be a good publicity campaign and having enough volunteers.”*
- *“For the second weekend, Francesca provided us with name badges which helped visitors to find us when we were particularly busy.”*
- *“Try to have a flow where the exit is different from the entrance to avoid a bottleneck Get visitors' commitment to completing the feedback form at the outset as their commitment for opening up the house to them. Some may try to avoid it if you haven't already persuaded them. Mostly they are happy to though.”*

Next year

Would you be interested in taking part again next year?

- *“Possibly, it was a lot of work, but it was worth it. Maybe if I had help getting the house ready beforehand!”*
- *“Very possibly”*
- *“Yes, we would be pleased to do this again, if our experience is still considered to be valuable in the light of what else may have been achieved by others.”*
- *“Yes I would be happy to take part next year.”*
- *“Thank you so much for the wonderful party - both at the start and the end - it was great fun.”*
- *“This was a very worthwhile exercise and we would like to express our appreciation to all those people who played a part, and not least to Francesca Iliffe who remained our main contact throughout.”*
- *“How about running a work shop, conference/ lectures and get each householder to talk about their experiences, either at the launch or at the end of the opening.”*

Feedback from volunteers

10 out of 21 volunteers responded to the request for feedback. Comments are below:

The whole experience of volunteering

What did you enjoy most about volunteering?

- *“Meeting people.”*
- *“Seeing how many people are becoming interested in the green building industry and helping them learn.”*
- *“The enthusiasm of house owners and visitors.”*

What did you find the most difficult/ problematic?

- *“Representing a building which is not really green.”*
- *“Would have preferred more time before hand to learn details of houses.”*

What could be done about that for next year?

- *“Tougher guidelines on how buildings are nominated for eco open houses.”*
- *“Send out detailed sheets on appropriate houses to volunteer on.”*

Comments:

- *“It was nice to see firsthand what could be done to improve the environmental impact of houses, very inspiring. It would be good to minimize travelling time between houses or maybe stay at one house per-day.”*
- *“Overall very enjoyable, but would have preferred the option to break the day up.”*
- *The experience was good - no complaints.”*
- *“It was very inspiring to meet so many people interested in eco living.”*
- *“The house where I volunteered was extremely inspiring too. The only slightly difficult aspect was arriving on the day not knowing the house or meeting the people living in it in advance. Perhaps next year meetings could be set up with the house owner and volunteers beforehand to familiarize with each other and the atmosphere of the house and to establish the house features 'in the flesh.’”*
- *“Enjoyable experience to work with and talk to visitors that are truly interested in making a difference. Learning experience on all levels.”*

- *“On the whole it went very well. A lot of the comments that I read via the feedback forms said how friendly and informative they found the event.”*
- *“I liked the opportunity to get to know the houses I volunteered at, and where available, the owners; I also liked the contact with visitors.”*
- *“The difficult part was my inability to answer visitors’ questions where not enough briefing about the property had been received.”*
- *“In future I would like to have a thorough briefing session with the owner or designer of the house, so I can ask all the question I can think of. I also want to have time to read the background information before the visitors arrive.”*
- *“A situation such as occurred at the Smart House where no-one was present who knew the building well, should be avoided. It also seems that a greater number of volunteers is needed at such popular houses, especially if they only open for one session.”*

The Houses

Which houses did you volunteer at?

- *“Uplands Rd, Golf Drive.”*
- *“Smart house & Uplands.”*
- *“Deanway and Hedgehog.”*

Any particularly good/ bad experiences at any of the houses?

- *“Good: the number of interested people at Golf Drive.”*
- *“Uplands was not in a presentable state to be visited, fortunately it had very few visitors.”*
- *“All good.”*

Would you volunteer at that house again? Why?

- *“Yes, possibly, because it was interesting, but I would like to be better briefed.”*
- *“No, but the chap who owns it is a really nice guy & gave us lunch. Its just it needed a big clean up before the doors opened.”*
- *“Yes as lovely house owners and good adaptations/build to explain to visitors.”*
- *“I volunteered at Smart House / 1a Whichelo Place / 10 Uplands Road / 6 Southdown Avenue.”*

- *“Smart House: not enough volunteers to cope with 275 visitors in 3 hours and nobody present who knew the house well and could answer every question. It was frustrating not to be able to answer them, more so after we ran out of background information leaflets.”*
- *“We had not prepared a policy about numbers allowed inside the house at any one time and it was impossible to keep an eye on everything with only two / three volunteers present. However, it was interesting to hear people’s comments, and the fact that they were slow in leaving the place speaks for its fascination.”*
- *“Whichelo Place and Southdown Avenue where the guided tours were conducted by the respective owners were optimal for the visitors and easy for us volunteers as we could always refer question we could not answer to the experts present. The presence of the architect at Whichelo Place was particularly helpful.”*
- *“I would volunteer at these three places again now that I know them better. I have my reservations about volunteering at 10 Uplands Road again because I felt the attire of the host was inappropriate and the untidiness of the place uncomfortable (my personal opinion). The question is whether one can - tactfully - do anything about such things?”*
- *“All good.”*
- *“Gladstone Terrace was good, but not much literature available.”*
- *“I was in the one off Elm Grove - new build-can’t remember the street. Yes I’d be there again, though perhaps more interesting to be somewhere else. It was good the owner was there and willing to brief us”*
- *“I was at the Hedgehog Housing Co-op in Bevendean. The host/house builder and her family were absolutely lovely and very easy to communicate with. I would definitely volunteer there again as not only was it a friendly atmosphere but the house features, its ethics as part of that of that particular co-op and the history of the co-op were all very interesting.”*
- *“Earthship - the times weren’t clearly indicated and there was a lack of signposting to the Earthship making it difficult for people to find. This could be easily improved with directions and signage for next year. Probably not because we were not involved in talking to the visitors just directing them.”*
- *“Having done seven properties over the course of two weekends, I found it hard to relate what features belonged to which house. I also found that there was an element of hostility towards the Gladstone Row development which I didn’t encounter elsewhere.”*

Communication

How well did you feel you were informed about your role?

- *“Fairly, but more knowledge would be better.”*
- *“I think we need a meeting prior to the event to explain the role.”*

On balance, would you have liked more/less email/phone/meetings about your volunteering role?

- *“About okay, except a general briefing on the issues might be useful.”*
- *“I think that there is a difference between the owner, the designer & the builder's viewpoint on each of these buildings. As such when the sites are nominated, an independent person / business should analyse them all to get a true picture of what has and has not been achieved.”*
- *“A meeting before hand...maybe there was one and I missed it as I was so busy.”*

How did you feel about wearing the T-shirt/badge?

- *“Embarrassed. Colour didn't suit me and it was slightly small. Plus i don't like BIG statements.”*
- *“It helped promote the branding which is great for the continued success of the event.”*
- *“Good.”*
- *“Didn't have a problem with wearing the t-shirt, although I have a spare one for Amy who never received it!”*
- *“I believe the t-shirts worked well, all communication about where we were going was clear.”*

Did you feel you were well utilised at the houses?

- *“Not quite at Golf Drive - many questions were about the community”*
- *“Yes.”*
- *“Yes.”*
- *“Hard to find Gladstone. Volunteers briefing might have helped.”*
- *“All fine - I was glad there was plenty of help and I was just an additional helper as I was finding my feet. If I'd needed more info, it would have been to have had more detailed info about that house before I arrived, but no complaints.”*

- *“Extremely well! Excellent communication beforehand and a very clear website. I think there was enough communication on balance. The logo on the T-shirt was great but I have to say I don't really enjoy wearing white and the shape was maybe a bit baggy compared to what I would usually choose. Perhaps I should have got the smaller size. Myself and Peter the other volunteer were extremely well utilised, in fact we would've all benefited from an extra volunteer for the amount of people turning up.”*
- *“Very well, just right amount of communication, wearing t-shirt no problem. Didn't feel we were well utilised as we just directed visitors.”*
- *“Seeing that this was a first some information was lacking. A meeting about volunteering before the event would help, so volunteers can get to know each other and questions can be asked.”*
- *“The e-mails were informative and the whole event was very well organised.”*
- *“I personally did not like wearing the T-shirt, a most un-flattering top. Of course it was important to be identifiable as someone connected with the event, but I would rather wear a badge next time, or for better visibility a sash or a cap.”*
- *“With my reservations mentioned earlier on I hope we were well utilised at the houses.”*

Information

Did you feel informed enough at the properties?

- *“Not at the start at Deanway.”*

If yes, how did you learn what you needed to know?

- *“Learnt from owners and other volunteers as morning passed by.”*

If no, what would have helped you to feel more informed?

- *“Better briefing.”*
- *“Sometimes, because of travel I did not have time to discuss the house with the owner.”*
- *“Volunteers briefing might have helped.”*
- *“I learned from the owner - a specific hand out for volunteers could have made it even better.”*
- *“Yes, very well informed! The host, showed us around and pointed out the eco-features, gave a description of the co-op history and showed us photo albums, which were also available for the public, of the process of the build. I would have felt more at ease had we met Brigitte beforehand though (as*

mentioned above), as our induction ran into the first visitors arriving and we had to listen with them as if we were visitors. Having said that, Brigitte's extremely clear and relaxed manner meant that I felt able to pick up the facts quite readily and was in full flow before long!"

- *"A group meeting in the house before visitors arrive perhaps."*
- *"No, but we did not do the tours.... Yes it would have helped to be more informed."*
- *"I feel that some of the info we had been given was a little bit misleading. Therefore someone independent could help the volunteers gain perspective on the projects"*
- *"I did not feel informed enough."*
- *"It would have helped to have a thorough tour of the houses we worked at and time to study the background information."*

Suggestions

We have had a few thoughts since the event, and it would be useful to have your views:

1. Have more tours at the houses

- *"Yes good idea, easier to manage the visitors."*

2. At some houses have the same volunteer for at least 2 slots, so they can be briefed and give tours them?

- *"Yes agree, that would be good for visitors, although selfishly it's good for the volunteer to have a bit of variety."*
- *"Yes, some of the houses would've benefited being open both weekends if the hosts could cope with that, but of course they need time to explore too."*
- *"At the house I was in I did give tours myself and was only there for one slot. Had I had more time I would've liked to stay for another slot and it does make more sense to have some consistency for the host, so as not to have to keep explaining it all to different volunteers."*
- *"I think that it was a shame that there is not a free bus service, which started at the official opening and moved from house to house. Doing this would mean that the properties out in the sticks get good viewing numbers & would save on journeys. Also, people will tend to go to the properties which look particularly impressive & may well be brushing knowledge under the carpet in preference for aesthetics."*

Next year

Would you volunteer again next year? Why?

- *“Oh yeah...because the event inspired people.”*
- *“Yes - it was fun and informative for me and good to be involved in an obviously popular event.”*
- *“I would definitely volunteer again if I'm available. However, a year is a long way off so I can't say for sure at this stage.”*
- *“It was a very interesting and stimulating experience, I enjoyed meeting new people and the Earthship party was great!”*
- *“Yes I would, because it's great to speak to people who are as enthusiastic as we are and interested in making improvements.”*
- *“Sure... Was good fun.”*
- *“Yes, I want to help push forward retrofitting/building homes to lower CO2 from homes and help lower fuel bills and reduce dependency on fossil fuels.”*
- *“As for volunteering next year, I don't now where I'll end up - if I'm around I may volunteer for at least one weekend.”*
- *“Yes, I would, if I have the time, because it was an informative and enjoyable activity that felt very worth-while.”*

Feedback from visitors

This section reports the comments recorded on the feedback forms, the comments in red were verbally reported to the Eco Open Houses team. The house that each comment referred to is in brackets, with some comments being made by visitors in multiple houses.

- *“Pledge form – insert a column ‘Already done’”*
- *“Brochure to have a list of when the properties are open”*
- *“More ‘basic houses’ included – what to do if you’re renting and cannot afford solar, etc. A hand-out showing the How To Do It on boards” - (Deanway)*
- *“Fantastic and informative displays” - (Deanway).*
- *“Wrong bus number quoted on the brochure for Hill Drive”*
- *“Meeting the owner and seeing it all work in practice” - (Hill Drive)*
- *“Good opportunity to see real installations in practice” - (Hill Drive/Wilbury Crescent/Southdown)*
- *“Talking to someone who has been in business – years of experience”*
- *“Helpful and informative” – (Deanway/Hill Drive)*
- *“Pledge form – no gas at my flat!”*
- *“Key reference on the map – and listing of when the properties are open”*
- *“Website – readable on ‘opera-mini’ browser on mobile phone – very handy”*
- *“Quite inspiring/inspirational” - (mentioned at all properties)*
- *“EOH & owner very informative – well staffed” (Wilbury Crescent)*
- *“Did not get a chance to speak to anybody – very busy” (Smart House)*
- *“Hi tech rather than Earthship” - (Smart House)*
- *“It was a useful intro into the eco concepts” (Earthship)*
- *“I have previous knowledge/experience” (Earthship)*
- *“Impressed by 4 consecutive uses of water” (Earthship)*
- *“Brochure needs to be slightly more technical detail to attract interest “*
- *“Extremely interesting – lots of detail”*
- *“Probably to get into more detail you would need more than one property”*

- *“Very interesting to learn what had succeeded and what had failed – great info for next projects to develop” - (Earthship)*
- *“With the large number of visitors it was only possible to give an overview but it was excellent with a good Q & A session” - (Earthship)*
- *“Information relevant to transforming my own home – well explained and useful for my own development”*
- *“Eco Open Houses brochure was easy to read and visually exciting”*
- *“EOH website easy to navigate”*
- *“There should be a separate form for pledge and feedback form.”*
- *“Should have the name of each property on the feedback form.”*
- *“Feedback form was confusing to fill out.”*
- *“Make each feedback form specific to that property.”*
- *“What you particularly like/dislike rather than ‘enjoy’.”*
- *“A ‘Doing already’ column for the pledge form”*
- *“Room for what else they are doing/would like to do for pledge form.”*
- *“Check spelling on the website”*
- *“I’ve been to 6 houses and it was difficult to get information” - (Whichelo Place)*
- *“Guided tours are excellent” - (Dyke Road Avenue/Wilbury Crescent/Southdown/One Brighton/Earthship)*
- *“Welcome, friendliness and enthusiasm” - (Dyke Road/Wilbury Crescent/Lyndhurst Road/One Brighton/Southdown/Whichelo Place/Golf Drive/Uplands/Hogs Edge/Earthship)*
- *“Informed, relevant advice” - (Deanway/Hill Drive/Dyke Road/Wilbury Crescent/Lyndhurst Road/One Brighton/Southdown/Whichelo Place/Golf Drive/Uplands/Hogs Edge/Earthship)*
- *“Very knowledgeable council officer” (Gladstone Row)*
- *“Meeting people who have similar outlooks” - (Deanway/Hill Drive/Wilbury Crescent/Lyndhurst Road/One Brighton/Southdown/Smart House*/Hogs Edge/Uplands/Golf Drive/Earthship)*
- *“Meeting people not trying to sell you anything!” - (Wilbury Crescent)*

- *“New ideas – sharing them with other people, what may be practical for other peoples’ homes”*
- *“Talking to the owners – personal experiences of people who have done it”*
- *“Relevant information“*
- *“Bubble wrap – great idea!” (Deanway)*
- *“Information and advice on solar thermal hot water” - (Hill Drive/Wilbury Crescent/Lyndhurst Road)*
- *“Information from EOH guides” – (Deanway/Wilbury Crescent/Lyndhurst Road/Smart House/Whichelo Place/Uplands/Earthship)*
- *“Architect on hand to explain the project clearly” - (Dyke Road/Earthship)*
- *“Meeting and discussing matters with owners” - (Deanway/Hill Drive/Wilbury Crescent/Lyndhurst Road/Southdown/Whichelo Place/Golf Drive/Uplands/Hogs Edge)*
- *“Encouraged by large number of visitors – a sign of change” - (Dyke Road/Southdown/Whichelo Place/Hogs Edge)*
- *“Viewing and thinking about a more eco – approach to living and house building” - (Dyke Road/Whichelo Place/Earthship)*
- *“Ability to see eco initiatives in real homes with real people” - (Wilbury Crescent)*
- *“Realisation that these eco measures are attainable” - (Wilbury Crescent/Earthship)*
- *“Good diversity of projects” - (Dyke Road/One Brighton/Golf Drive/Gladstone Row)*
- *“Original diagrams from 1970s showing visual changes” - (Wilbury Crescent)*
- *“Features being shown and the assistance available” - (Wilbury Crescent)*
- *“Seeing the developers moving in the right direction” - (Gladstone Row)*
- *“Green wall” - (Gladstone Row)*
- *“Rep present was really a sales person and out of her depth technically, but tried to help”*
- *“Good crowd and excellent speaker” - (One Brighton)*
- *“Q & A was interesting; Rep had good knowledge” - (One Brighton)*
- *“Clear and informative usage of space” - (One Brighton)*

- *“Meeting others interested I low Carbon living” - (One Brighton)*
- *“Opportunity to explore alternative technology” - (Southdown)*
- *“Wanted to find out this stuff” - (Southdown)*
- *“Found it difficult to hear and understand what was being said” - (Southdown)*
- *“Approach to explaining features and possibilities for own home” - (Southdown)*
- *“Interesting if you live in an old, energy inefficient house” - (Southdown)*
- *“Good sense of humour back with real life experience” - (Southdown)*
- *“Radial wall heating and large use of solar” - (Southdown)*
- *“Innovations and determination to be involved with own improvements” - (Southdown)*
- *“All most interesting, thanks to house builders and organisers” - (Southdown)*
- *“Seeing the houses and learning about the green features” - (Southdown)*
- *“Under floor insulation” - (Southdown)*
- *“Learning about internal insulation, windows and thermal efficient fireplace” - (Southdown)*
- *“Helpful to see things in situ – seeing eco theory in practice” - (Southdown/Smart House)*
- *“Seeing buildings close up and not just on tv/internet/brochure” - (Dyke Road/Wilbury Crescent/Gladstone Row/Southdown/Smart House/Whichelo Place/Uplands/Hogs Edge/Earthship)*
- *“Meeting neighbours/residents” - (Hill Drive/Smart House)*
- *“Beautiful house” - (Dyke Road/Smart House/Whichelo Place/Golf Drive/Hogs Edge)*
- *“Needed more guides” - (Smart House)*
- *“This is the only house I’ve seen – not very well publicised” - (Whichelo Place)*
- *“Simplicity and thought gone into it” - (Whichelo Place)*
- *“Accessible information about sourcing material” - (Whichelo Place)*
- *“Light and airy” - (Whichelo Place)*

- *“Interesting to see how the house fitted onto such a small plot – imaginative use of what’s available” - (Whichelo Place)*
- *“The Sedum roof, skylights and tyre flooring” - (Whichelo Place)*
- *“Possibilities of using small derelict spaces architecturally” - (Whichelo Place)*
- *“Chance to get out and see what’s happening locally” - (Whichelo Place)*
- *“Energy savings features” - (Hill Drive/Whichelo Place)*
- *“Quality of explanations”*
- *“Raising awareness about what’s possible in lower carbon footprint terms” - (Whichelo Place/Golf Drive)*
- *“Meeting many local people involved with local projects” - (Golf Drive)*
- *“Hope to pass on ideas to my Housing Association”*
- *“Some houses are in unfamiliar and interesting parts of Brighton” - (Golf Drive/Uplands)*
- *“Accessible and educational” - (Golf Drive)*
- *“Networking” - (Uplands)*
- *“Chance to see how ordinary people are making changes” - (Uplands)*
- *“What can be done in practice and encouragement to do something” - (Uplands)*
- *“Sense of community” - (Golf Drive/Hogs Edge)*
- *“Location, style and natural feel” - (Hogs Edge)*
- *“Relaxed atmosphere” - (Hogs Edge)*
- *“The rural nature of the whole estate and the way the Earthship nestles into the hillside in an unobtrusive way. The guide (Jon) was extremely knowledgeable and inspired confidence and courage to think differently” - (Earthship)*
- *“Learning about tyre walls” - (Earthship)*
- *“Educational” - (Earthship)*
- *“Informality”*
- *“It’s actually happened!”*
- *“Maps were a bit confusing”*

Conclusion

The Eco Open Houses project realised all of its aims and was very successful; achieving a high profile and attracting a wide range of visitors. However, whilst a model for future events has been established, there are lessons to be learned.

The way the project was designed and the timescale it was carried out over was unsustainable in terms of human resources, and future projects based on this model would need extra personnel, including a full-time project manager, and increased funding. The level of funding required to an Eco Open Houses project is high in comparison to similar events that have been held in the UK, but the high quality of product enables it to reach out to a large, varied and potentially previously unreached audience. The feedback from the visitors suggests that the tours with 'professionals' who were associated with the houses worked well, and it would be beneficial to include more professionals in future events to support the householders and volunteers.

Areas that the project did not focus on, and which are key to reducing energy and carbon dioxide emissions, are the rental and social housing sectors. It would be useful for future events to target these as well, as among Eco Open Houses 2008 visitors only 10.5% of the visitors lived in private rented accommodation, 2.4% in housing association accommodation and 1.6% were council tenants.

Also, the 2008 event did not have the resources to follow up whether visitors had fulfilled the pledges that they had made. However, the development of a methodology and resources to follow up on the pledges could enable Eco Open Houses to become a dynamic tool in reducing carbon dioxide emissions from the housing sector.

Appendix 1: Eco Open Houses Feedback form

Name:

E-mail address or telephone number:

(to contact you in the event of winning prize or to receive e-mail bulletins)

Are you local? If not how far have you travelled to get to this event:

Would you like to receive emails from:

Brighton Permaculture Trust (monthly) details of courses, events, other activities

Low Carbon Trust (monthly) training courses, events, other activities,

Sustainability Team, Brighton & Hove City Council (weekly) local events, funding

What did you think of:		Comments
Did you learn something from visiting this property?	Excellent Good Average Poor Very poor	
What did you think of the handout for this property?	Excellent Good Average Poor Very poor	
Did you feel features were adequately explained?	Yes very well Quite well Not enough No	
What did you think of the Eco Open Houses brochure?	Excellent Good Average Poor Very poor	
What did you think of the Eco Open Houses website?	Excellent Good Average Poor Very poor	
Where did you hear about Eco Open Houses?	Brochure E mail Banner at station Press Advert Word of mouth Other	
Having visited have you been inspired to make changes?	Definitely Probably Maybe No	

We would be grateful if you would fill out the following information so that we can ensure we make this event as accessible as possible in future:

Age: under 20 21-30 31-40 41-50 51-60 61-70 over 70

Sex: M F

Are you: Student Unemployed Employed P/T, F/T Other

Are you a: tenant: council, housing association, private
 landlord
 house owner
 other

Mobility do you use a wheelchair? have any other mobility issues?

Ethnic background: White: British, Irish, Other
 Black or Black British: Caribbean, African, Other
 Mixed: White& black Caribbean, white& black African, white &
 Asian
 Asian: Indian, Pakistani, Bangladeshi, Other
 Chinese and other ethnic groups: Chinese, Other

Sexuality heterosexual/straight, gay or lesbian, bisexual, other, prefer not
 to say

PLEASE NOW FILL IN THE PLEDGE ON THE OTHER SIDE TO BE ENTERED INTO THE DRAW TO WIN AN ENERGY SMART METER

Appendix 2: Eco Open Houses Pledge form

Eco House Pledge

Fill in a feedback form at a house you visit and you could win a fantastic Energy Smart Meter which will measure how much electricity you use in your homes and tell you what the costs and carbon emissions are! This will help you choose the best way to reduce your electricity use. These pledges were adapted from a checklist devised by Lewes Architect Duncan Baker Brown (www.bbm-architects.co.uk)

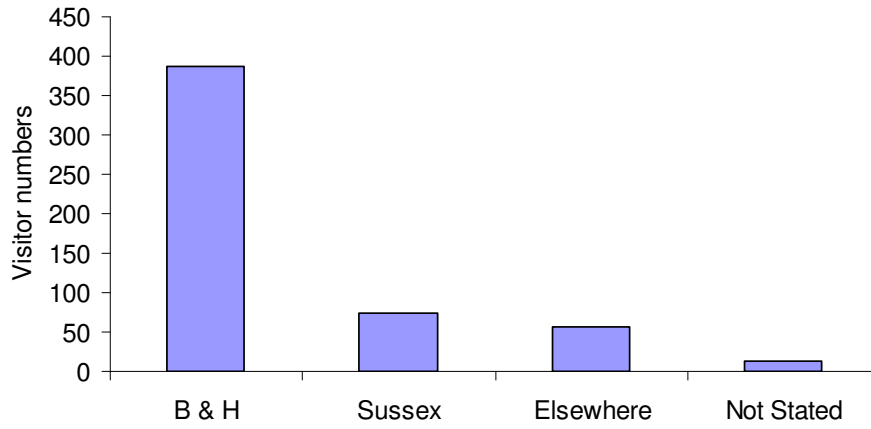
I pledge to:	Costs	Do in g now	Do in a yr	Do by 3 yrs
<p>Reduce my gas use for water & space heating by</p> <ul style="list-style-type: none"> • turning my central heating down by a couple of degrees • put on an extra jumper instead of turning heating up! • turn radiators off in rooms I don't use • use heavy curtains to keep heat in • make sure my heating is not on when I'm out • take quick showers instead of deep baths. <p>Start monitoring my gas use and notice how much I'm saving</p> <ul style="list-style-type: none"> • Check my boiler is running efficiently. • Replace my boiler with a very efficient one • Insulate my loft • Insulate external walls if possible, or fill cavity wall • Insulate the ground floor • Invest in Solar Thermal Energy i.e. solar panels to preheat water for central or space heating • Install under floor heating (It works with WARM water not HOT water, therefore saving lots of energy. Runs off normal boiler; works well with Solar Thermal) 	<p><i>No cost and saves money!</i></p> <p>£65 £800* £100* £450-£1,500* £500-£2,500* £3,000- £4,500* £2,500 to install</p>			
<p>Reduce my electricity use by</p> <ul style="list-style-type: none"> • always turning off unnecessary lighting • always turning plugs and electrical items and technology off <p>Start monitoring my electricity use and note how much I'm saving</p> <ul style="list-style-type: none"> • Switch to a green energy supplier that invests in RENEWABLES (Wind/ Solar/Tidal/Biomass) • Replace ALL my lights bulbs with energy efficient versions. • Get intelligent energy saving plugs for 'white goods'. Try <i>Centre for Alternative Energy online shop</i> www2.cat.org.uk/shopping • Install Photovoltaic (Solar)Panels or Tiles - depending on situation but could supply all electricity needs for low energy light bulbs and more 	<p><i>No cost and saves money!</i></p> <p><i>an extra £10 per quarter approx £100</i> £25-75</p> <p>£5,000-£7,500*</p>			

<p>Save water by</p> <ul style="list-style-type: none"> installing a water meter (free from my water company) and start monitoring how much water I can save by simple measures see www.southernwater.co.uk Get a water butt for watering my garden When buying new, buy low water use shower heads, washing machines & dual flush toilets Invest in a rainwater harvesting system - to flush toilets, and to use with my washing machine 	<p><i>No cost and saves money!</i></p> <p><i>£25</i></p> <p><i>Nil</i></p> <p><i>£5,500</i></p>			
<p>Use natural materials</p> <ul style="list-style-type: none"> Use non-toxic, local and even recycled materials for insulation, plastering, decorating, floorboards etc. where possible. (To reduce the likelihood of 'Sick Building Syndrome' which plagues well-sealed, well-insulated buildings AND promotes local green industries of which there are many in Brighton & SE England) 	<p><i>Costs of green materials: about twice the norm</i></p>			

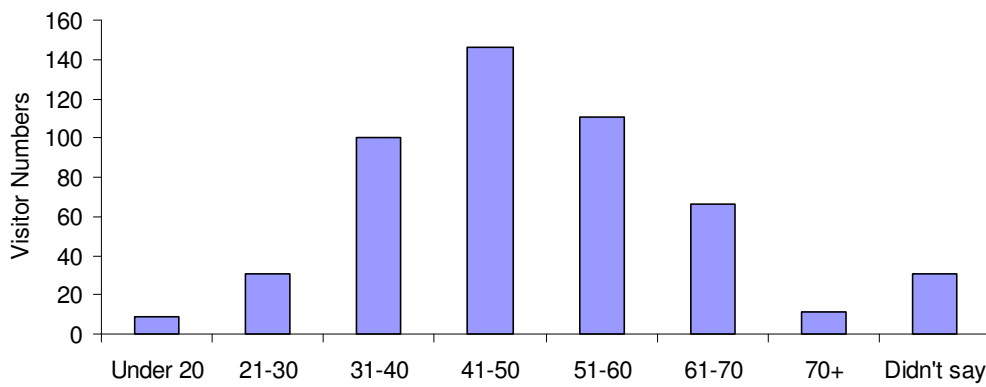
** see council grants page for possible grant funding or try www.lowcarbonbuildings.org.uk*

Appendix 3: Visitors' Demographics

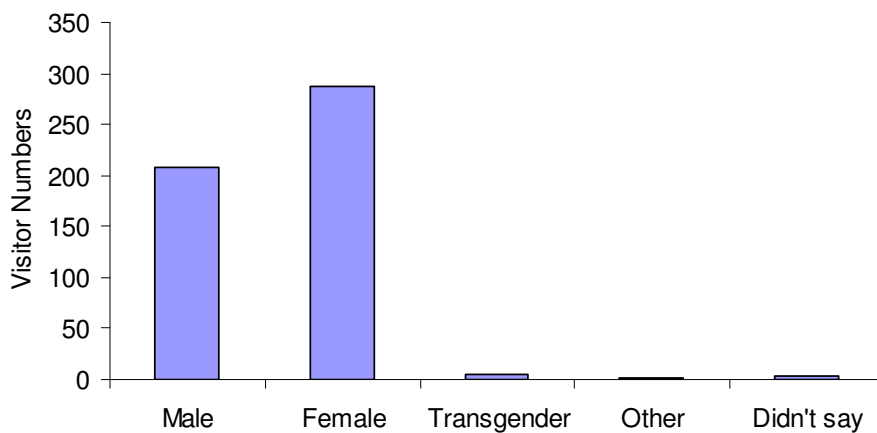
Where Eco Open Houses visitors came from:



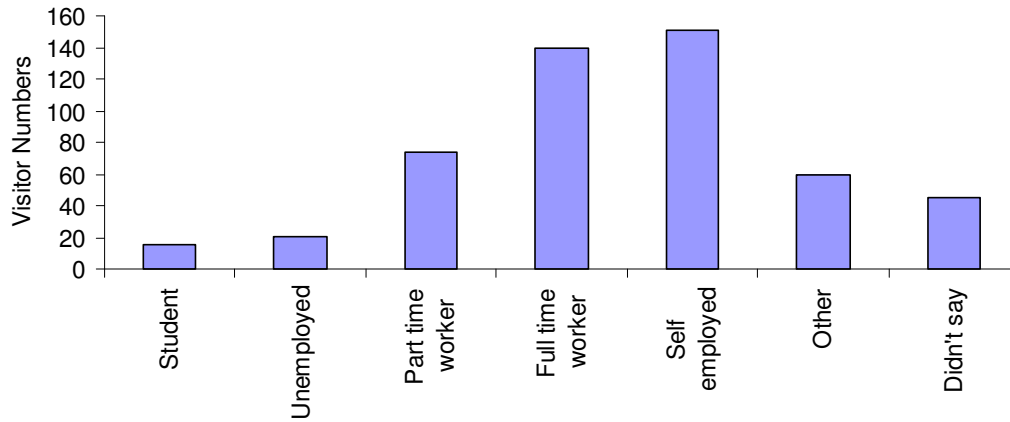
Eco Open Houses visitors' age range:



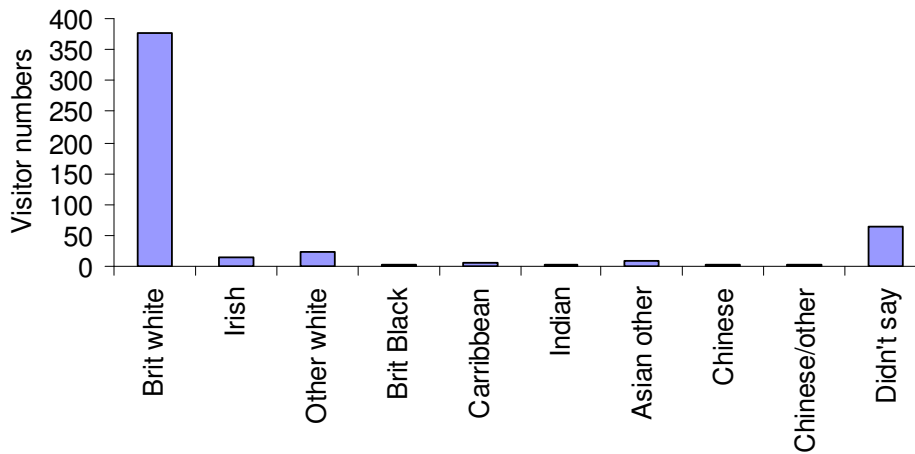
Eco Open Houses visitors' self-identified gender:



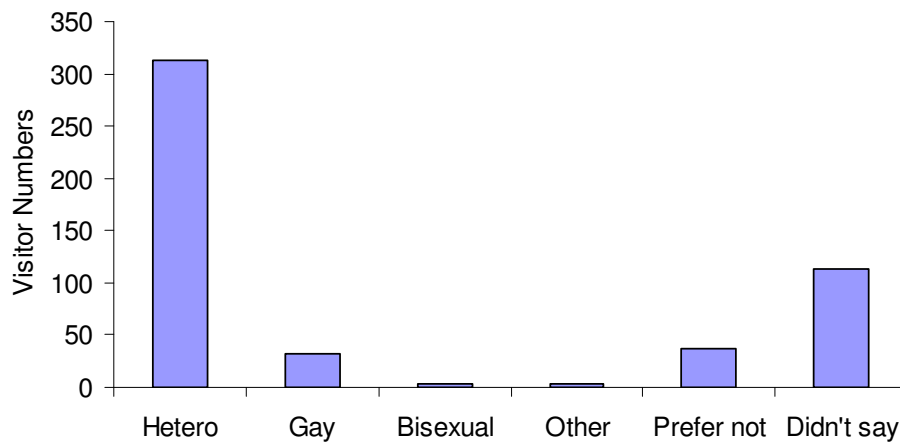
Eco Open Houses visitors' employment status:



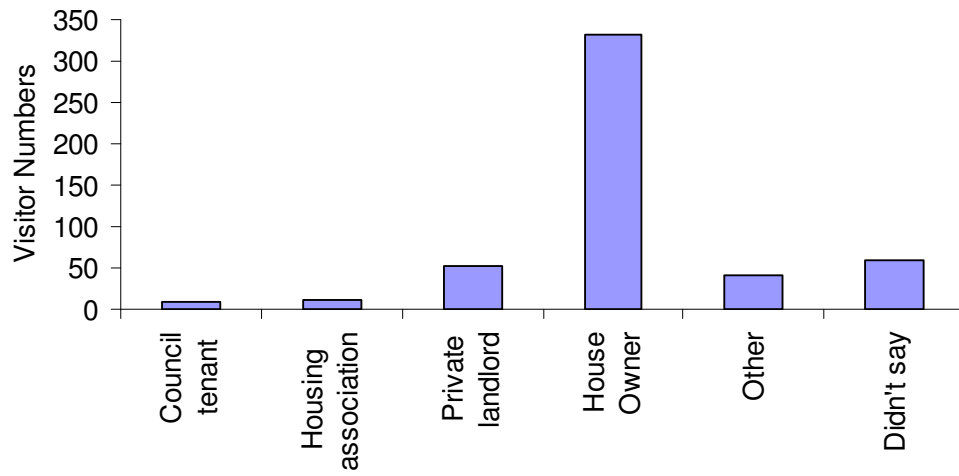
Eco Open Houses visitors' nationality:



Eco Open Houses visitors' sexual orientation:

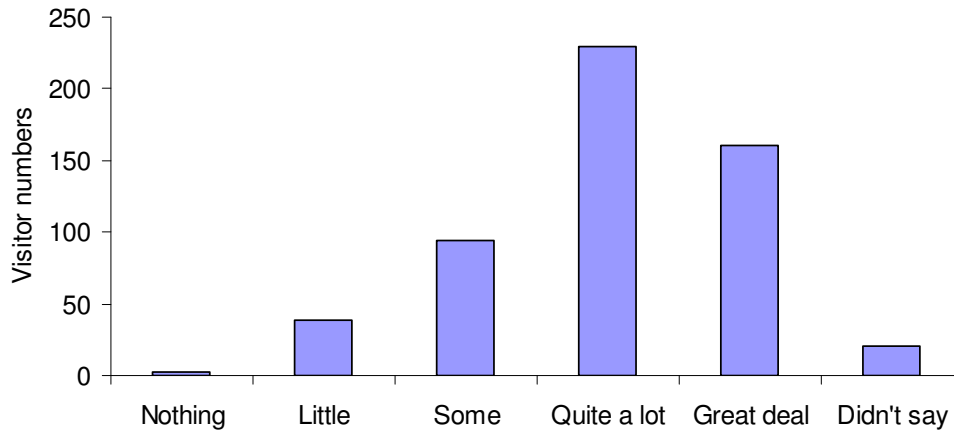


Eco Open Houses visitors' housing status:

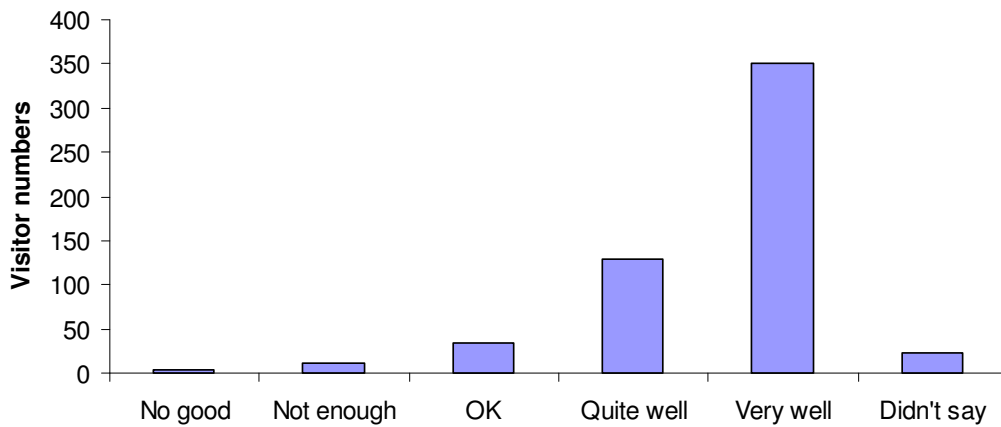


Appendix 4: Visitors' views on Eco Open Houses

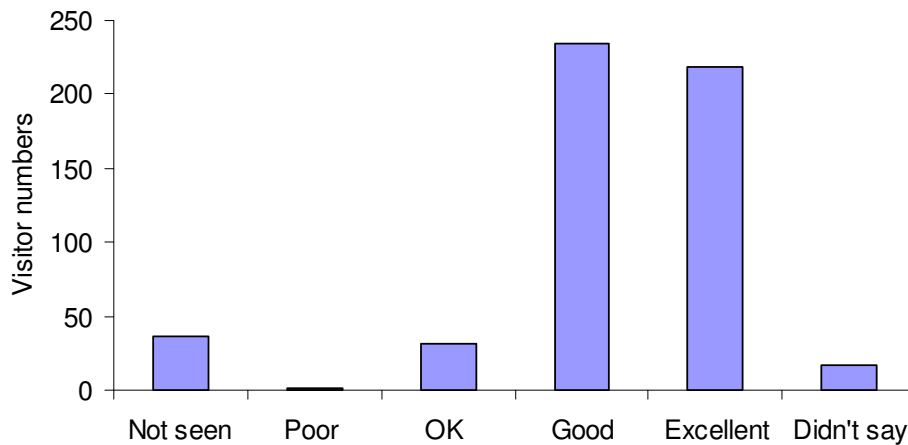
Did you learn anything from Eco Open Houses?



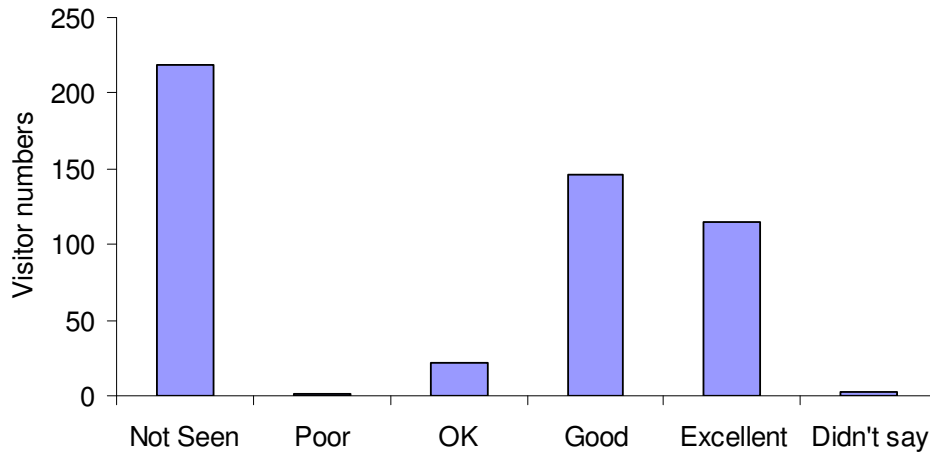
How well were the features of Eco Open Houses explained?



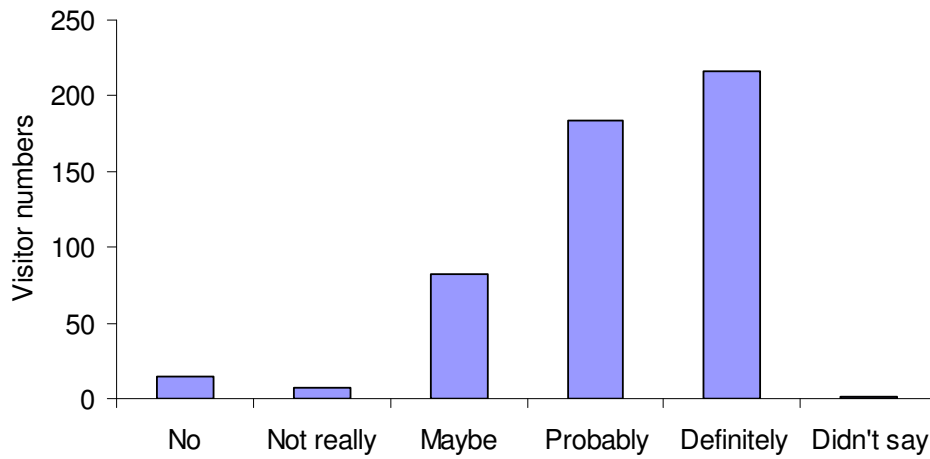
What did you think of the Eco Open Houses property handouts?



What did you think of the Eco Open Houses website?



Did Eco Open Houses inspire you to make changes in your own home?



Appendix 5: CO₂ savings from pledges

Pledge Reductions	CO ₂ saving	Pledges:			This year	Next year	3 years	Totals
		This	1 Yr	3 Yrs				
Turn heating down 2°C	934	240	8	0	224,160	7,472	0	231,632
Extra jumper rather than turn up heating	467	254	9	0	118,618	4,203	0	122,821
Turn off radiators in unoccupied rooms	45	228	10	2	10,260	450	90	10,800
Heavy curtains to keep heat in	176	188	46	4	33,088	8,096	704	41,888
Heating off when I'm out	90	231	12	2	20,790	1,080	180	22,050
Showers instead of baths (weekly)	45	211	26	4	9,495	1,170	180	10,845
Showers instead of baths (daily)	317	211	26	4	66,887	8,242	1,268	76,397
Check boiler running efficiently	1	170	45	8	170	45	8	223
Loft insulated	370	115	55	17	42,550	20,350	6,290	69,190
Replace boiler with efficient one*	1,162	99	46	48	115,038	53,452	55,776	224,266
Cavity wall insulation	1,320	75	46	36	99,000	60,720	47,520	207,240
Ground floor insulation	346	31	34	40	10,726	11,764	13,840	36,330
Under floor heating	665	17	24	42	11,305	15,960	27,930	55,195
Solar thermal energy	325	40	39	70	13,000	12,675	22,750	48,425
Turn off unnecessary lighting	23	249	5	0	5,727	115	0	5,842
Turn electrical equipment off not standby	133	236	12	0	31,388	1,596	0	32,984
Monitor electrical usage	1	135	67	3	135	67	3	205
Switch to green electrical supplier	1,420	106	60	21	150,520	85,200	29,820	265,540
Intelligent energy savings plugs	39	92	78	13	3,588	3,042	507	7,137
Energy efficient light bulbs	172	171	40	8	29,412	6,880	1,376	37,668
Install solar PV	1,200	20	29	74	24,000	34,800	88,800	147,600
Running totals (kgCO₂)		3,119	717	396	1,019,857	337,379	297,042	1,654,278
Grand total (tCO₂)					1,019.857	337.379	297.042	1654.278

Appendix 6: Eco Open Houses – assumptions made for energy & carbon savings

Due to the large volumes involved, it would be impossible to know exactly how much CO₂ would be saved as a result of the Eco Open Houses event. However, a rough, generic estimate can be calculated.

For all data gathered from the Energy Savings Trust website – www.energysavingstrust.org.uk the following household data has been assumed:

- House: detached
- Bedrooms – 3
- Occupants – 4
- Gas central heating

Data not from the Energy Savings Trust came primarily from the Carbon calculator website – www.carboncalculator.co.uk – this is generic and did not have any calculations for different types of property.

There were variations between the pledge form and what this actually related to on either website.

- Extra jumper = not turning up heating by 1 °C.
- Turning off radiators in unused rooms = savings using TVR (Energy Savings Trust only).
- Showers instead of quick baths data: <http://articles.kyero.com/reduce-your-carbon-footprint/578>.
- Adjusted figure – subtracted weekly figure from daily figure to make assumption not everyone would have a shower per day.
- Replace boiler with an efficient one has been assumed to be installing a condensing boiler.

Major differences between Energy Savings Trust and Carbon Calculator:

	Carbon Calculator	Energy Savings Trust
Activity	CO₂ savings Kg	CO₂ savings Kg
Replace boiler	700	1162
Turn off lights	370	23
Turn heating down by 1 °C	250	467
Fitted energy light bulbs	80	172
Draught proofing	100	176
Cavity wall insulation	860	1320
Totals:	2360	3320

Difference between two websites:

- Energy Savings Trust 3320-
- Carbon Calculator 2360
- Difference 960 Kg
- Solid wall insulation (internal) could save 3836 KgCO₂
- Solid wall insulation (external) could save 4051 KgCO₂
- Under floor heating has been calculated as follows:

- Under floor heating can reduce demand for heating by 15%.
- Average demand for gas heating for assumed property: 23,351 kWh (rounded down to 23,350 for practical purposes)

If demand is reduced by 15% then:

Underfloor heating in kWh = $23350/100*15$	3502.5
1 kWh = 0.19kg CO ₂ *kWh reqd	665.475
Rounded down to nearest integer	665 Kg

Solar Thermal = savings have been calculated as being 'up to 350 Kg' although a figure of 325 Kg, which was quoted in Energy Savings Trust website, replacing gas heating, was used.

Average savings in £ was deduced as being 5p kWh gas for heating – data from Energy Savings Trust website.

Electricity

Switching to a green energy supplier data came from the Carbon Calculator website; there was nothing comparable on Energy Savings Trust website.

Intelligent Savings Plugs – Data from: <http://www.savingtrust.dk/news/news-from-elsparefonden/Record-sales-of-AutoPowerOff-plug-banks-in-2008>

Model used: AutoPowerOff plug

Article stated 50M kWh saved by 600,000 devices:

$50 \times 10^6 / 6 \times 10^5 = 83.33333$

Rounded down = 83

0.47Kg CO₂ emitted for 1 kWh

$= 83 \times 0.47 = 39.1651$

Rounded down (to nearest integer) 39

Solar Photovoltaic – quoted as saving up to 1200Kg of CO₂ although no nearby ballpark figure was quoted – unlike Solar Thermal. Therefore the figure of 1200Kg was used – this should be regarded as a maximum figure.

Appendix 7: Media articles links

<u>Item/Journalist</u>	<u>Link</u>
Latest Homes - Robert Nemeh	http://latesthomesmagazine.co.uk/
Findaproperty.com – Nikki Sheenan	http://www.findaproperty.com/displaystory.aspx?edid=00&salerent=0&storyid=22189
PropertyInvesting.net	http://www.propertyinvesting.net/cgi-script/csNews/csNews.cgi?database=default.db12280&command=viewonex
Buildingopinions.com	http://www.buildingopinions.com/Archive/ecoopenhouses.html
Argus – Ruth Morgan	http://www.arguslite.co.uk/display.var.2372233.0.green_houses_of_brighton_and_hove.php
The Observer – Karen Dugdale	http://www.guardian.co.uk/money/2008/jul/06/property.homeimprovements
www.newbuilder.co.uk	http://www.newbuilder.co.uk/news/NewsFullStory.asp?ID=2542
www.treehugger.com/	http://www.treehugger.com/files/2008/07/victorian-houses-go-green.php
International Herald Tribune – Elizabeth Rosenthal	http://www.iht.com/articles/2008/07/15/healthscience/15ecohomes.php
New York Times – Elizabeth Rosenthal	http://www.nytimes.com/2008/07/20/world/europe/20greenhouse.html?pagewanted=1&r=1&sq=rosenthal&st=cse&scp=1

Note: all links are hyper-linked – click to launch your web browser and view the article