



2010

# Eco Open Houses in Brighton and Hove



An evaluation report

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This report was written in December 2010 by Mischa Hewitt of Low Carbon Trust on behalf of the Eco Open Houses team, with input from Francesca Iliffe of Brighton & Hove City Council, Caroline Schofield of Brighton Permaculture Trust and Terry Robinson.

The Eco Open Houses team would like to thank all those people that made the project possible, including the householders and volunteers.

Front cover illustration by Julian Howell

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## Executive summary

This is the monitoring and evaluation report for Eco Open Houses 2010. The report covers: visitor numbers, demographics, feedback & pledges, householder feedback, volunteer feedback, website visitors, publicity and project finances. Technical reports on the houses, details of the methodology of the project and other supporting resources and information can be found on the website [www.ecoopenhouses.org](http://www.ecoopenhouses.org)

Eco Open Houses is an event in Brighton and Hove run by Brighton & Hove City Council, Brighton Permaculture Trust and Low Carbon Trust that aims to inspire the uptake of energy efficiency by opening up houses that demonstrate best practice in the area. This is the third consecutive year that the event has run and was funded by Energy Saving Trust. The public are either given a tour of the house by the householder or a professional that worked on the project, or they 'drop-in' for an informal look around. A brochure and website was produced for the event, explaining the houses energy efficiency measures and other information.

The event was held over 6 days: 9<sup>th</sup> to 12<sup>th</sup> September as part of Heritage Open Days and 30<sup>th</sup> and 31<sup>st</sup> October as part of Energy Saving Week. There were 14 eco houses that opened their doors including 5 new-builds and 9 renovations. Half of the houses were opened to the public for the first time this year. Many of the houses had previously won awards and one was from the Technology Strategy Board's 'Retrofit for the Future' competition.

**Figure 1: Official opening of Eco Open Houses 2010 at 15 Lloyd Close. Photo courtesy of Hannah Brackenbury**



The press coverage for Eco Open Houses 2010 included: BBC Southern Radio, Latest Homes magazine and The Environmentalist magazine. The event attracted 936 visitors and the average number of visitors per house was 72. 347 people (37%) completed feedback and pledge forms. The range of visitors was diverse, from many different backgrounds. From analysing the demographic, a 'typical' visitor was a 48 year old white house-owning female in full time employment. The project budget was £19,736, equating to an approximate cost per visitor of £21.

The visitors reported that they were visiting the houses to research products and information on various energy efficiency approaches and techniques and to talk to the people who had implemented them. 98% of visitors said they 'learnt something' by visiting a property and 87 % stated that the features of the houses were 'adequately explained'. 95% of visitors thought the Eco Open Houses brochure and website were 'excellent' or 'very good', whilst 85% said that the visits had 'influenced them to reduce their energy consumption'.

At the end of the visit, each of the visitors was encouraged to pledge to reduce their energy consumption by adopting a range of energy saving behaviours or installing energy efficiency measures in their houses. The total energy that would be saved if all of the pledges were fulfilled would be 6 MWh. The breakdown of this figure is 4.87 MWh of gas saved, 1.1 MWh of electricity saved, and 17,175 kWh of energy saved through conserved water.

The corresponding saving in carbon dioxide emissions is: 1,404 tonnes of CO<sub>2</sub> (tCO<sub>2</sub>). Given the overall cost of the project the value in these terms is £14 per tCO<sub>2</sub> saved. The breakdown of the total CO<sub>2</sub> saving is 925 tCO<sub>2</sub> through gas savings, 472 tCO<sub>2</sub> through electricity savings and 7.4 tCO<sub>2</sub> saved through conserved water. If all of the pledged measures were implemented, it would generate £1,101,850 through purchases and installation of energy and water efficient equipment.

The average visitor who made a pledge would over three years:

- Be already saving 5,158 kWh of energy, corresponding to 1.15 tCO<sub>2</sub>
- After visiting an Eco Open House, be saving an additional 17,255 kWh of energy: 14,035 kWh of gas, 3,170 kWh of electricity and 50 kWh of water
- The additional energy saving corresponds a carbon dioxide emissions reduction of 4.05 tCO<sub>2</sub>: 2.66 tCO<sub>2</sub> through gas, 1.36 tCO<sub>2</sub> through electricity and 21 kgCO<sub>2</sub> through conserved water
- Spend £3,175 on energy efficiency measures in their home

Note: 'Already saving' is the amount of energy and CO<sub>2</sub> saved by the actions visitors are already taking and 'additional' is the amount of energy and CO<sub>2</sub> that would be saved by future action that was inspired by visiting an Eco Open House.

## Eco Open Houses

This section introduces the Eco Open Houses. Information for each house is: address, brief description, list of features and a photo. The brief description states whether the house was a new build or renovation, aspect e.g. detached or mid-terrace and number of bedrooms. A glossary for the list of features and full technical reports for the houses including project background and approach can be found on the event website: [www.ecoopenhouses.org](http://www.ecoopenhouses.org)

### 1. One Brighton, Stroudley Rd, Brighton

New build 1, 2 & 3 bedroom apartments in multi-residential blocks

Features:

- + zero carbon
- + high performance glazing
- + biomass heating & hot water
- + photovoltaic panels
- + ventilation system with heat recovery
- + breathable clay block walls
- + sustainably sourced timber



### 2. Earthship Brighton, Stanmer Park, Brighton

New build model off-grid detached house

Features:

- + passive solar design
- + photovoltaic panels
- + wind turbine
- + solar thermal panels
- + wood burning stove
- + rainwater harvesting &
- + grey water recycling
- + natural materials

### 3. 15 Lloyd Close, Hove

New build detached 3 bedroom house

Features:

- + *natural materials*
- + *solid timber frame construction*
- + *airtight construction*
- + *photovoltaic & solar thermal panels*
- + *biomass boiler & underfloor heating*
- + *rainwater harvesting & green roof*
- + *zero carbon*



### 4. 73 Wilbury Crescent, Hove

Renovated mid-terrace Edwardian 4 bedroom house

Features:

- + *solar thermal panels*
- + *insulation*
- + *energy monitoring*
- + *energy conservation*

### 5. 20 Avondale Road, Hove

Renovated 1960's semi-detached 3 bedroom house

Features:

- + *external wall insulation*
- + *sweet chestnut cladding*
- + *high performance glazing*
- + *heat recovery system*
- + *solar thermal panels*
- + *wood burning stove*
- + *low energy LED lighting*
- + *natural materials & finishes*





### 6. 5 Dyke Road Avenue, Brighton

Renovated 4 bedroom detached 1950's house

Features:

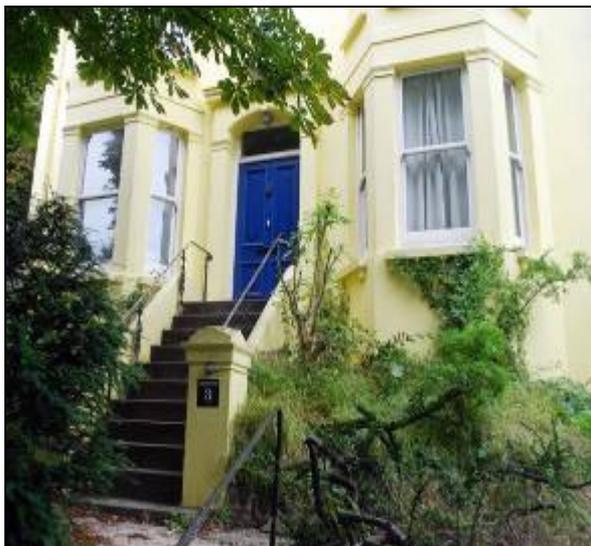
- + *sweet chestnut cladding*
- + *underfloor heating*
- + *live/work unit*
- + *recycled newspaper insulation*
- + *natural paints*
- + *clay plaster*

### 7. 15 Deanway, Hove

Renovated 1970's house

Features:

- + *insulation*
- + *solar thermal panels*
- + *rainwater harvesting*
- + *energy efficiency measures*
- + *biodiesel*
- + *water conservation*



### 8. 3 Lovers Walk, Brighton

Renovated detached 6 bedroom Victorian house

Features:

- + *external & internal wall insulation*
- + *ground floor insulation*
- + *solar thermal panels*
- + *high performance glazing*
- + *airtight construction*
- + *ventilation system with heat recovery*
- + *low energy appliances*
- + *80% CO2 emissions reduction*

### 9. Yew Tree House, Preston Park Avenue, Brighton

New build detached 3 bedroom house

Features:

- + *passive solar design*
- + *airtight construction*
- + *ventilation system*
- + *wood burning stove*
- + *high performance glazing*
- + *solar thermal panels*
- + *rainwater harvesting*
- + *low water use toilets & shower*
- + *low energy LED lighting*
- + *green roof*



### 10. 1a Whichelo Place, Queens Park, Brighton

New build detached 2 bedroom house

Features:

- + *timber frame*
- + *solar thermal panels*
- + *sheep's wool insulation*
- + *condensing boiler*
- + *grey water system*
- + *green roof*

### 11. 111 Ditchling Rise, Brighton

Renovated 3 bedroom Victorian mid-terrace house

Features:

- + *internal wall insulation*
- + *airtight loft extension*
- + *high performance glazing*
- + *wood burning stove*
- + *low energy lighting*
- + *energy monitoring*
- + *photovoltaic panels*





### 12. 6 Southdown Avenue, Brighton

Renovated end-of-terrace 4 bedroom Victorian house

Features:

- + *internal wall insulation*
- + *condensing boiler*
- + *solar thermal panels*
- + *high performance glazing*
- + *radiant wall heating*
- + *energy controls*
- + *wood burning stove*
- + *low energy cooking*

### 13. 4 Whichelo Place, Brighton

Renovated mid-terrace 4 bedroom Victorian house

Features:

- + *external wall insulation*
- + *high performance glazing*
- + *energy efficiency*
- + *solar thermal panels*
- + *wood burning stove*
- + *natural materials*



### 14. 76 Westfield Crescent, Brighton

Renovated semi-detached 3 bedroom 1940's house

Features:

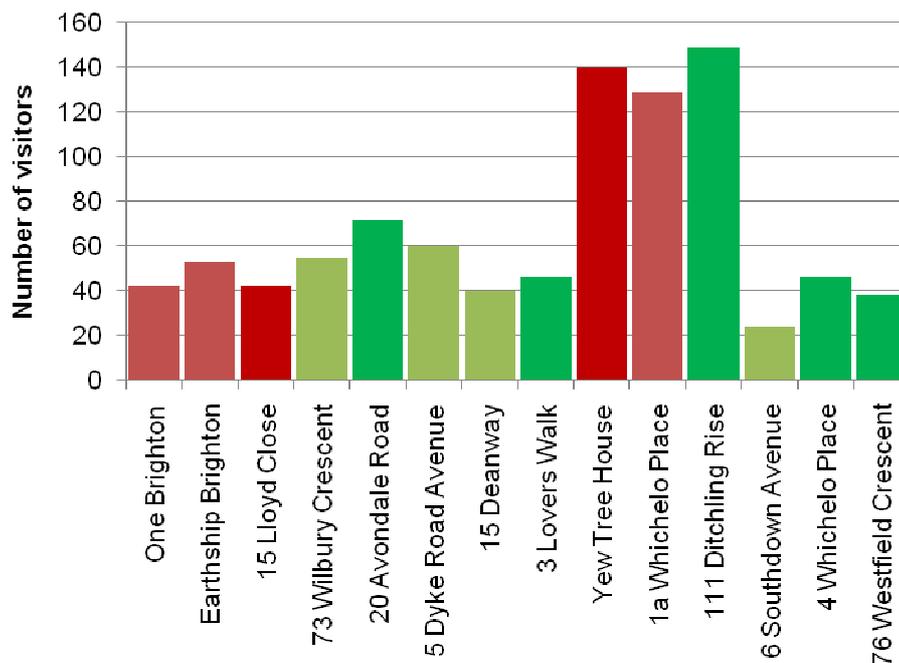
- + *photovoltaic panels*
- + *insulation*
- + *wood burning stove*
- + *LED lighting*
- + *rainwater harvesting*
- + *grey water recycling*
- + *home composting*

## Visitor numbers

There were 936 visitors to the 14 houses over 6 days: 764 people in September and 172 people in October. The house that received the most visitors was 111 Ditchling Rise with 149. There may be several reasons for this: the house was a new house this year, it is located in central Brighton and was the only one open for 4 sessions. The two new-builds, Yew Tree House and 1a Whichelo Place were next in popularity with 140 and 129 visitors respectively over two sessions. They are both located in central Brighton. The average number of visitors per house was 72.

The total numbers of visitors per house is shown in figure 2, the breakdown by session in figure 3, and a summary of the house visiting format and 'people present' in figure 4. The red columns in figure 2 below denote 'new-build' properties and the green columns 'retrofitted' properties. A lighter shade indicates a property that has been part of a previous event and the darker shade one that opened this year for the first time. There were 7 'new' houses opened up for the first time this year.

**Figure 2: Number of visitors to Eco Open House**



**Figure 3: Visitor numbers by day**

No	House	September								October				Total
		Thu 9th		Fri 10th		Sat 11th		Sun 12th		Sat 30th		Sun 31st		
		am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	
1	One Brighton	16		26										42
2	Earthship Brighton		13		40									53
3	15 Lloyd Close	18				24								42
4	73 Wilbury Crescent	8		16		31								55
5	20 Avondale Road				36		36							72
6	5 Dyke Road Avenue					24	36							60
7	15 Deanway					20	20							40
8	3 Lovers Walk							21	25					46
9	Yew Tree House							70	70					140
10	1a Whichelo Place							47	82					129
11	111 Ditchling Rise							42	43			28	36	149
12	6 Southdown Avenue									16	8			24
13	4 Whichelo Place										18		28	46
14	76 Westfield Crescent										21		17	38
	<b>Total</b>	<b>42</b>	<b>13</b>	<b>42</b>	<b>76</b>	<b>99</b>	<b>92</b>	<b>180</b>	<b>220</b>	<b>16</b>	<b>47</b>	<b>28</b>	<b>81</b>	<b>936</b>

**Figure 4: Eco Open Houses summary**

No	House	Format	People present
1	One Brighton	Tour	Peter Commane - caretaker
2	Earthship Brighton	Tour	Stephen Watson / Gillian Trott - tour guides
3	15 Lloyd Close	Tour	Mark Pellant & Abi Torr – householders & architects
4	73 Wilbury Crescent	Open	Jeffrey & Brenda Marchant - householders
5	20 Avondale Road	Tour	Oliver Health - householder & designer
6	5 Dyke Road Avenue	Tour	Duncan Baker-Brown - architect
7	15 Deanway	Open	Cleland & Sharada Laidlay - householders & renewables installer
8	3 Lovers Walk	Tour	James Rae - architect / Dan England - carpenter
9	Yew Tree House	Tour	Mick & Sue Paskins - householders
10	1a Whichelo Place	Open	Jackie Strube & Alan Stone - householders
11	111 Ditchling Rise	Open	Maria Hawton-Mead - householder & sustainability consultant
12	6 Southdown Avenue	Tour	Mischa Hewitt - sustainability consultant
13	4 Whichelo Place	Tour	Paul Early - householder & engineer
14	76 Westfield Crescent	Open	Francesca Iliffe - householder & sustainability officer

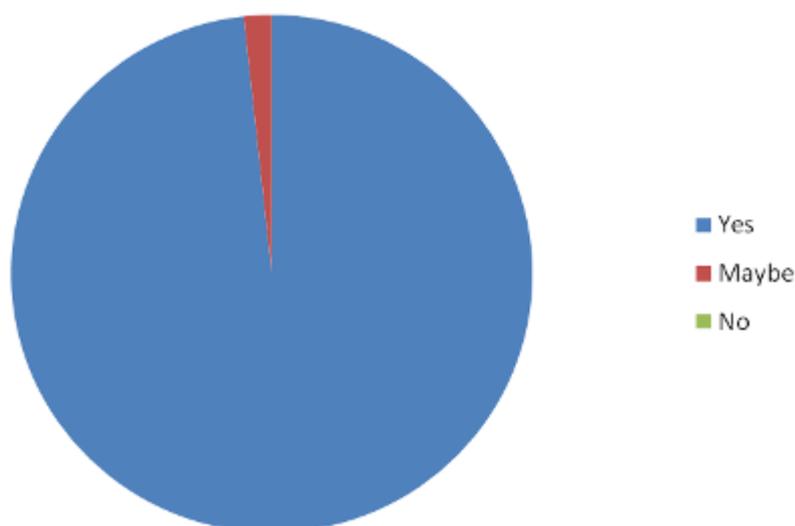
## Visitor feedback

Visitors to all of the houses were encouraged to complete either a paper or online feedback form on Survey Monkey. There were 347 people (37%) who completed feedback and pledge forms. No feedback forms were completed for 15 Deanway. The forms had three sections: visitor feedback, visitor demographics and visitor pledges. The pledges were a list of behavioural or energy efficiency measures that visitors would say whether they were prepared or indeed had already undertaken to reduce their energy and water consumption. The results shown below are the combined figures of both events and include everything that was recorded on both paper and electronic form.

### Question 1: Did you learn something from visiting this property?

All visitors who completed the form indicated that they had learnt something. 341 people (98%) said 'Yes' they had learned something', whilst 6 people (2%) stated 'Maybe' they had learnt something.

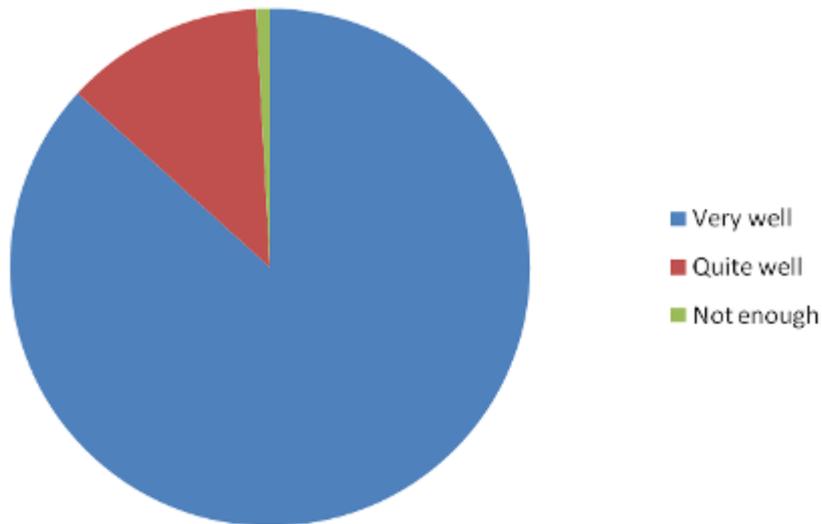
**Figure 5: Did visitors learn something from their house visits?**



### Question 2: Did you feel the features were adequately explained?

A total of 301 people (87%) stated they thought the features of the house they visited were explained 'Very well', with a further 43 people (12%) saying that they were explained 'Quite well' and 3 people (1%) saying the explanation was 'Not enough'.

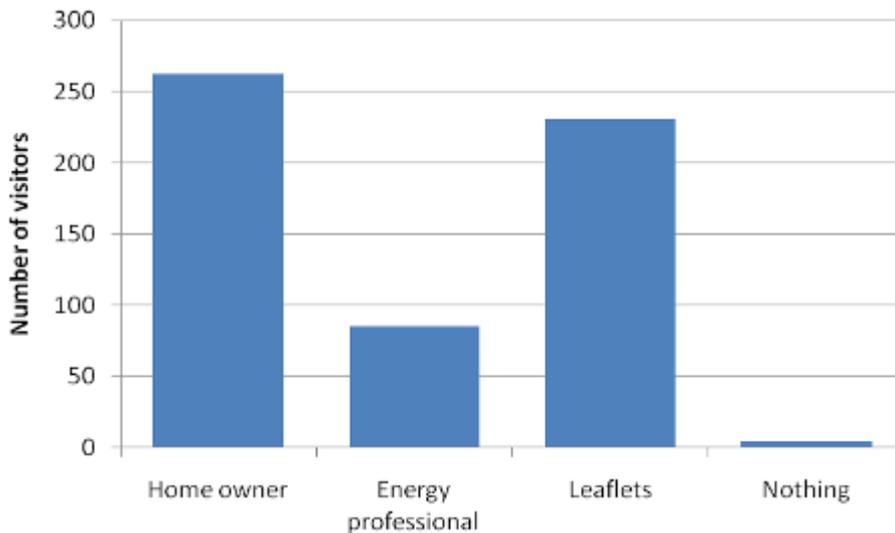
**Figure 6: What visitors thought of the household explanations**



**Question 3: What elements did your visit include?**

The houses had either pre-booked guided tour or were visited in the drop-in 'open house' format. The breakdown of elements that the visitors experienced was: 262 people 'Discussion with homeowner', 85 people 'Discussion with energy professional' and 231 people 'Leaflets with information'.

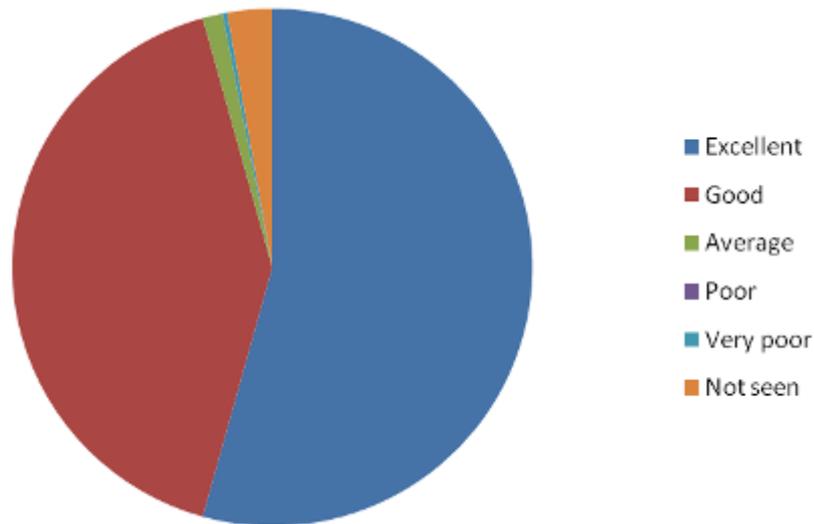
**Figure 7: Elements of visit**



**Question 4: What did you think of the Eco Open Houses brochure and website?**

This question evaluates people's opinion of the Eco Open Houses materials. The results were: 176 people (54%) 'Excellent', 134 (41%) 'Good', 4 people (1%) 'Average, 0 people 'Poor', 1 person (<1%) 'Very poor' and 9 people (3%) 'Not seen'.

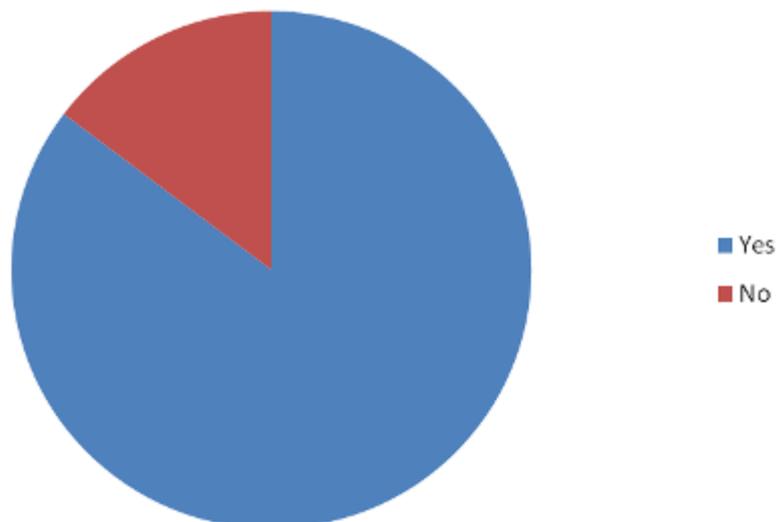
**Figure 8: What visitors thought of the brochure and website**



**Question 5: Has the visit influenced you to do anything around reducing your energy consumption?**

This question asked whether visitors were influenced to make energy savings as a result of their visits, and if so, whether they had been given enough information to enable them to do so. The results were 261 people said 'Yes' (85%) and 45 people (15%) said 'No'. The comments for this question are shown below the figure.

**Figure 9: Did the house visits influence you to reduce your energy consumption?**



## Comments

There were a total of 35 comments in the 'Yes' answer bracket as shown in table 2 below. Some 20% of this group are *'thinking about reducing energy demand'* and 31% wanting to know more about *'local suppliers'*, *'contractors'* and the *'technical data'* and *'more information'*.

**Figure 10: Further information sought**

Information sought	9th - 12th	30th - 31st	Total
Technical data	4	1	5
Local suppliers	6	1	7
Think about it	5	2	7
Listed Building	2	0	2
Costs	2	0	2
More info/research	2	1	3
Consultants/contractors	2	1	3
Electricity monitor	1	0	1
Local church	1	0	1
Solar thermal	1	0	1
Damp proofing	1	0	1
Wood burning stove	1	0	1
Aerated tap	0	1	1
<b>Total</b>	<b>28</b>	<b>7</b>	<b>35</b>

From the people that stated 'No', around half (49%) stated that they were already *'doing energy saving'* or *'it was already planned'*, whilst 38% stated that they were *'not in a position at the present moment / renting'*. The main barriers are listed below.

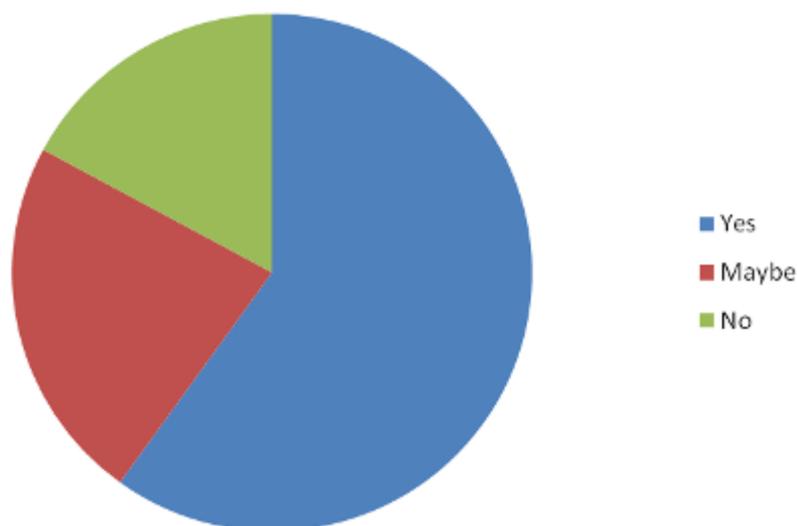
**Figure 11: Comments from those who said 'No' their house visit had not influenced them to reduce energy**

Comment	9th - 12th	30th - 31st	Total
Already doing it/planned	18	1	19
Not in a position at present / Renting	12	3	15
Further research needed	3	1	4
No money	1	0	1
Total	34	5	39

**Question 6: Has the visit improved your understanding on the impact your home has on climate change?**

The next question asked whether their understanding of their dwellings impact on Anthropogenic Climate Change had been furthered by their house visits. The results were: 196 (60%) people said 'Yes', 75 (23%) people said 'Maybe' and 56 (17%) people said 'No'. The responses are summarised below.

**Figure 12: Has your visit improved your understanding it has on Climate Change?**



**Comments**

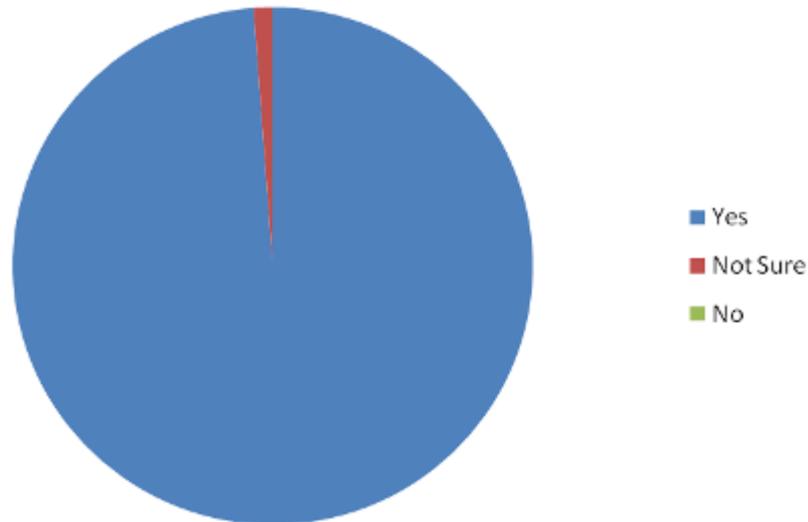
Of those who said 'No' there were a few comments, with the most common being already know, these are summarised below.

**Figure 13: Comments from those who said No their house visit hadn't improved their understanding of climate change**

Comment	9th - 12th	30th - 31st	Total
Already know it	10	2	12
Too complex	1	0	1
No reason given	1	0	1
Total	12	2	14

**Question 7: Are you pleased you came?**

A total of 336 visitors stated they were pleased they attended, this was the majority. The results are summarised below.

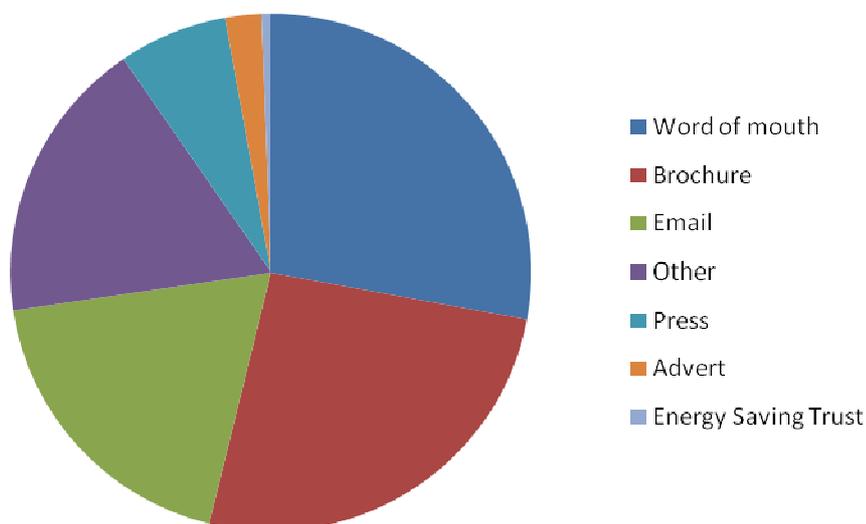
**Figure 14: Were visitors pleased they came****Question 8 & 9: What motivated you to attend? & how could the experience be improved in the future?**

These questions were open ended and so the range of answers diverse. The answers are listed in Appendix 4: Qualitative visitor feedback.

### Question 10: Where did you hear about Eco Open Houses?

'Word of mouth', 'brochure' and 'email' were the three most important channels for publicising the event. There were several responses stating that there was insufficient publicity to the event itself. The results are shown below.

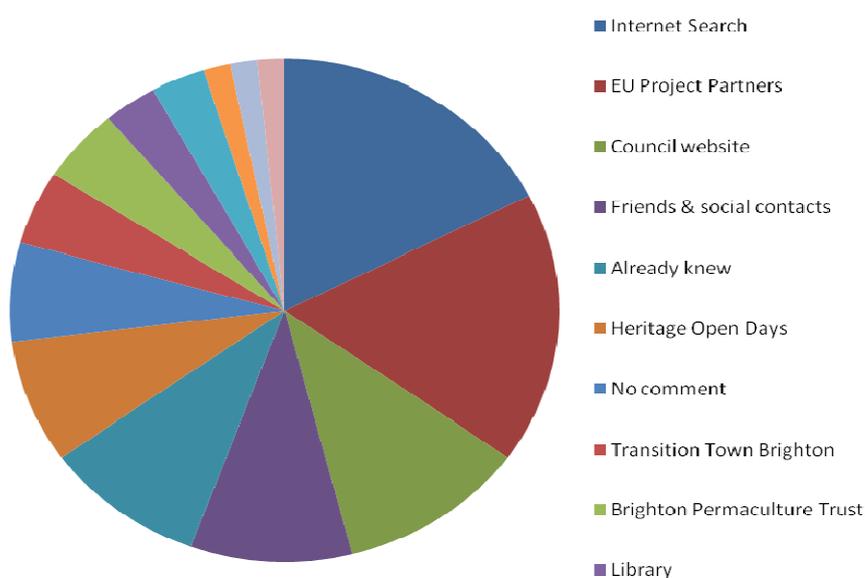
**Figure 15: Where people heard about Eco Open Houses**



Note: There was no 'advert' for the event, so it is unclear what this is referring to

The 'Other' responses are summarised below.

**Figure 16: Where visitors heard about EOH - other column answers**



## Visitor pledges

Eco Open Houses encourages savings in energy, CO<sub>2</sub> emissions and water by getting the visitors to complete a 'pledge' form after a visit. The pledges are indicative of changes in lifestyle choices and installed energy efficiency measures. Some of the pledges are listed below. For a full list of the pledges see Appendix 1: Sample Feedback & Pledge form.

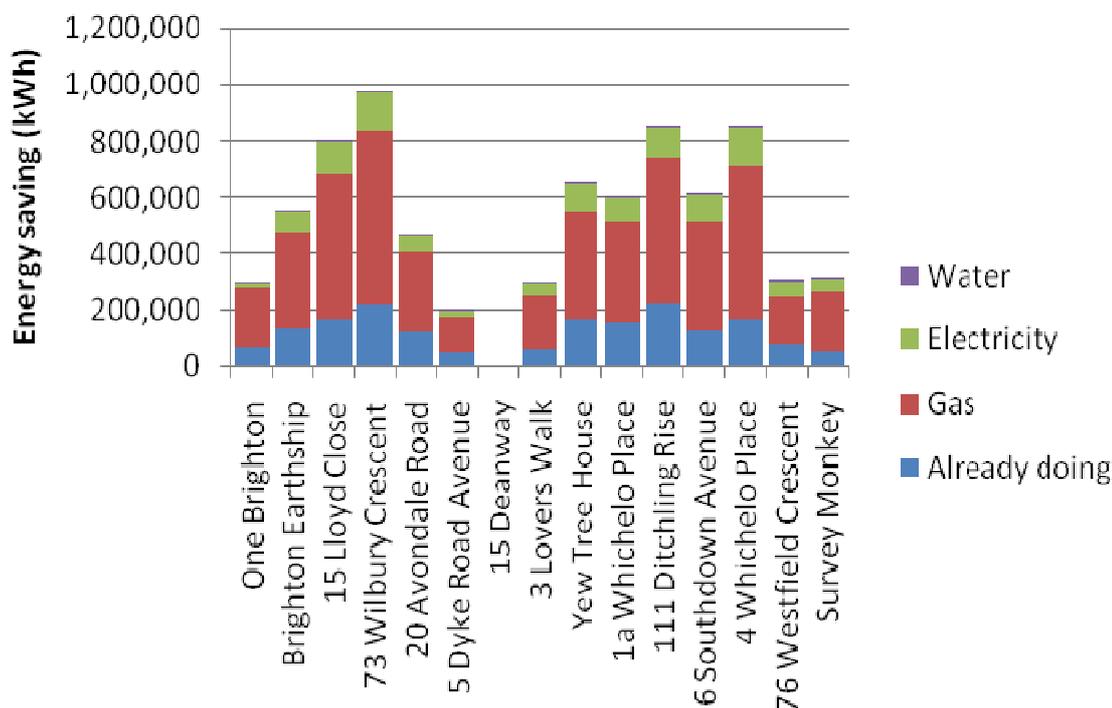
- Turning my central heating down by a couple of degrees
- Turn radiators off in rooms I don't use
- Start monitoring my gas use to see how much I'm saving
- Check my boiler is running efficiently
- Replace my boiler with a very efficient one
- Insulate my loft
- Always turning off unnecessary lighting
- Always turning plugs and electrical items and technology off
- Replace all my lights bulbs with energy efficient versions
- When buying new appliances, buy 'A' rated
- Get a water butt for watering my garden
- When buying new, buy low water use shower heads, washing machines & dual flush toilets

The pledges could be made over four different time-scales: 'already doing', 'will do from now on', 'within a year' and 'within 3 years'. This enables analysis of potential and already realised energy savings, CO<sub>2</sub> emissions reductions and water savings. For the graphs below, the 'already doing' column was how much energy, water and CO<sub>2</sub> was being saved, with an average UK household being used as a baseline model.

The graph below shows the amount of energy saved by all of the pledges made by visitors to save gas, electricity and water at each house over a three-year period. The 'already doing' savings for gas, electricity and water have been combined. Some of the pledges, such as 'contact an energy professional', 'boiler check' or 'use natural materials', are not included as the saving is difficult to quantify.

Some visitors filled out forms at more than one house so double counting has been eliminated wherever possible. There were no completed feedback forms at 15 Deanway, so the results for this house are zero in all graphs. The energy saved by water conservation was calculated using 1.2 kWh per m<sup>3</sup> of water. A summary of the figures and assumptions used to calculate the savings are in Appendix 3: Energy saving measures.

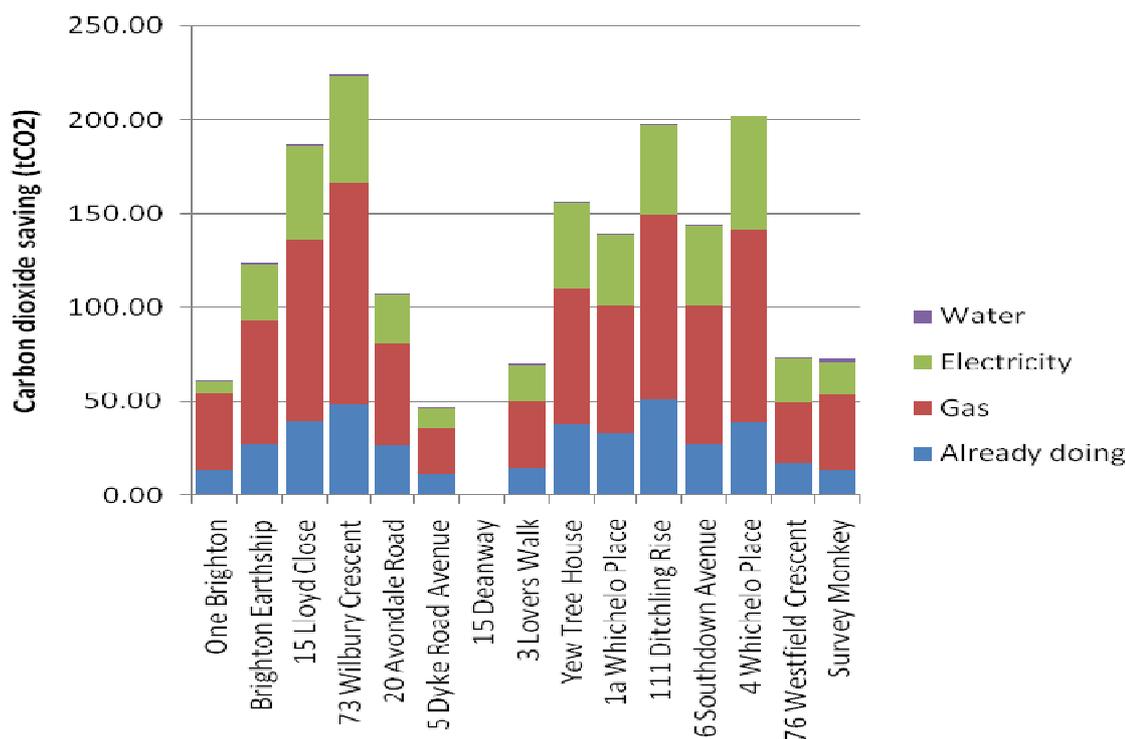
**Figure 17: Pledged and 'Already doing' energy & water savings over a three year period**



If the visitors fulfilled the pledges they made then there would be savings of 7.8 MWh of energy over three years. However, some of these savings cannot be attributable to the event as the visitors are 'already doing' them. These amount to 1.8 MWh's over three years. If these are removed from the total, the impact of the event, assuming that if all of the visitors undertake the pledges, is 6 MWh of energy over three years.

The breakdown of this figure is 4.87 MWh of gas, 1.1 MWh of electricity and 17,175 kWh of energy saved through conserved water. Therefore the average saving of the 347 visitors who made pledges over three years is 14,035 kWh of gas, 3,170 kWh of electricity and 50 kWh of energy saved through conserved water. Outside of this, each visitor will already be saving on average 5,158 kWh through energy and water efficiency. The corresponding CO<sub>2</sub> savings are summarised in the graph below.

**Figure 18: Pledged and 'Already doing' CO<sub>2</sub> savings over a three year period**

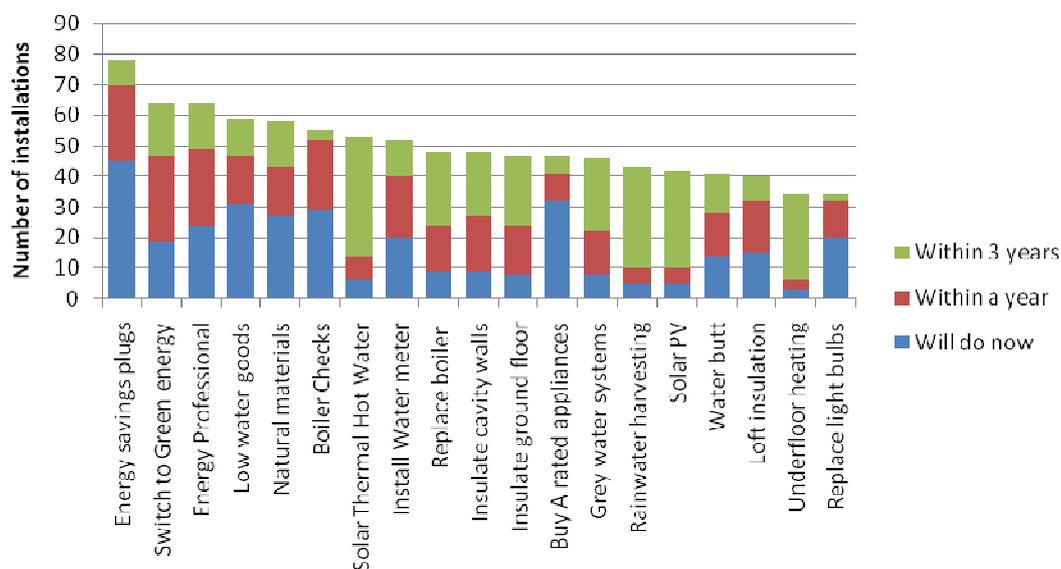


If the visitors fulfilled the pledges they made then the event would have saved 1,803 tCO<sub>2</sub> of carbon dioxide emissions over three years. The 'already doing' saving is 399 tCO<sub>2</sub> so the impact of the event is 1404 tCO<sub>2</sub>. The breakdown of this figure is 925 tCO<sub>2</sub> through gas savings, 472 tCO<sub>2</sub> through electricity savings and 7.4 tCO<sub>2</sub> of carbon dioxide emissions saved through conserved water.

Therefore the average saving of carbon dioxide emissions of the 347 visitors who made pledges over three years is 2.66 tCO<sub>2</sub> through gas, 1.36 tCO<sub>2</sub> through electricity and 21 kgCO<sub>2</sub> through conserved water. Each visitor will already be saving on average 1.15 tCO<sub>2</sub> through energy and water efficiency over three years. Therefore, although the event is attracting people who are eco-conscious and already doing something, it is encouraging them to make further savings.

To realise these savings, the visitors would need to invest in various energy efficiency measures. The cost of the individual measures can be found on sample pledge form (Appendix 1). The number of 'intended' installations of each technology are summarised in the graph below. In total there are 953 potential installations.

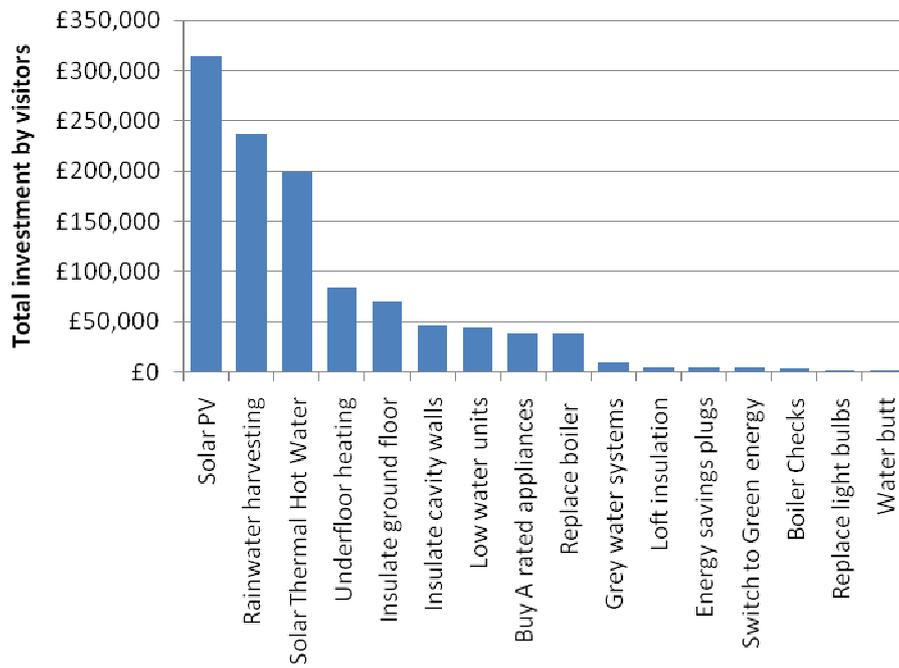
**Figure 19: Number of energy and water efficiency measure installations**



The most popular measures were energy saving plugs, switching to a green energy supplier and contacting an energy professional.

Each measure had low and high bracket, which was an estimate of how much it would cost to install the measure. The total financial investment in all efficiency measures from the event is £1,101,850, which is £3,175 per visitor who completed a feed back form. The total investment is a 5575% return on the total project cost of £19,763. The 'install water meter', 'contact an energy professional' and 'use of natural materials' are not included in the costs below as the exact figures cannot be quantified.

**Figure 20: Financial investment in energy and water efficiency measures**

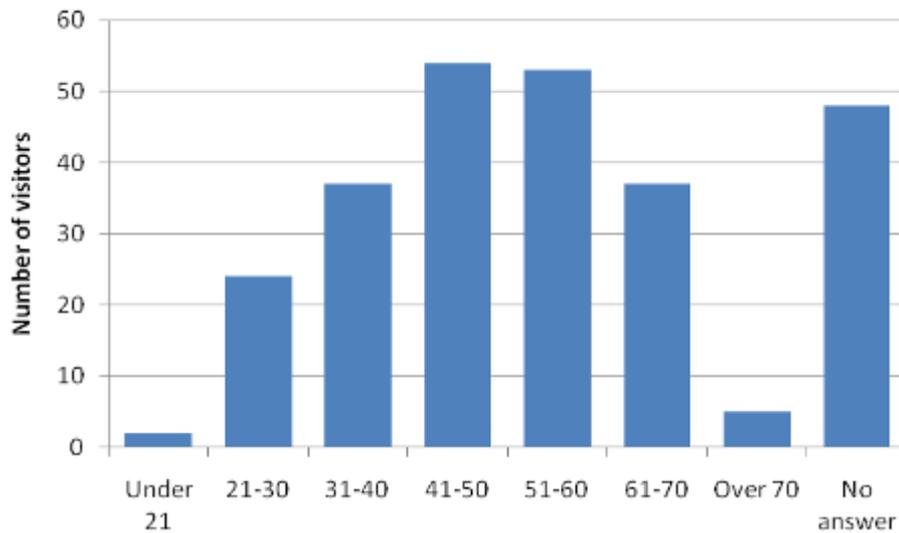


## Visitor demographic

### Age

From the people that completed feedback forms, the average age was 48. The visitors' ages are shown in the graph below.

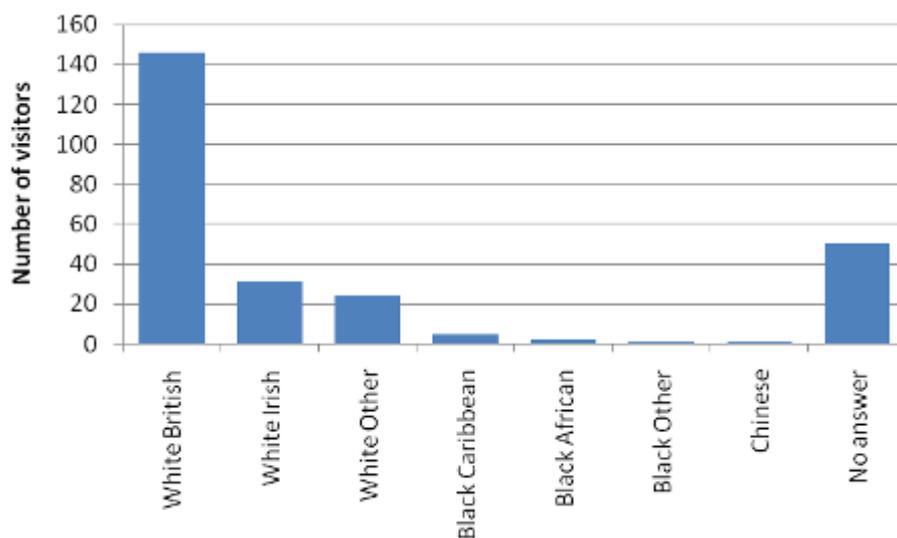
**Figure 21: Eco Open Houses visitors by age**



### Ethnicity

From the people that completed feedback form, the average visitor was white (96%). The visitors ethnicity demographic is shown in the graph below. Only categories that were represented are presented on the graphs. Categories that were on the feedback form, but were unrepresented included: Mixed Caribbean, Mixed African, Mixed Asian, Indian, Pakistani and Bangladeshi.

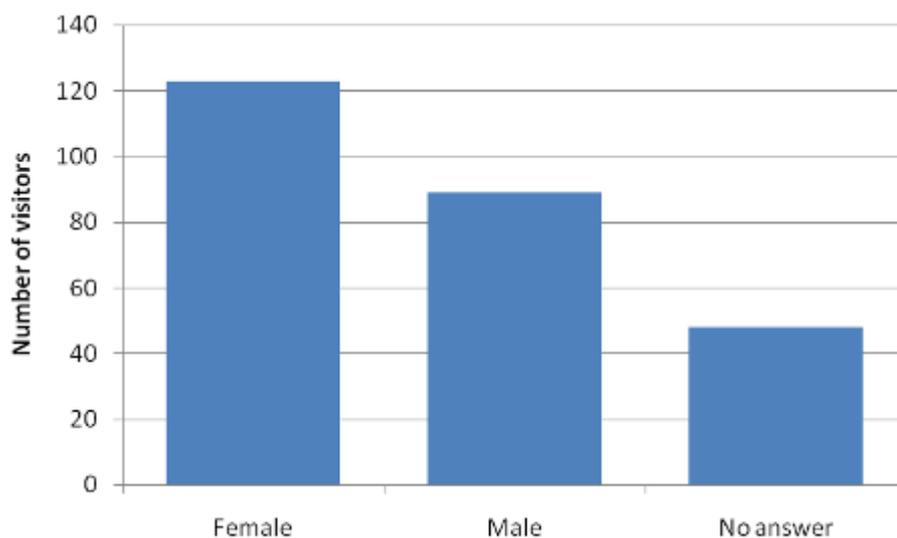
**Figure 22: Eco Open Houses visitors by ethnicity**



## Gender

From the people that completed feedback forms, 41% were male and 59% were female. The visitors' gender demographic is shown in the graph below.

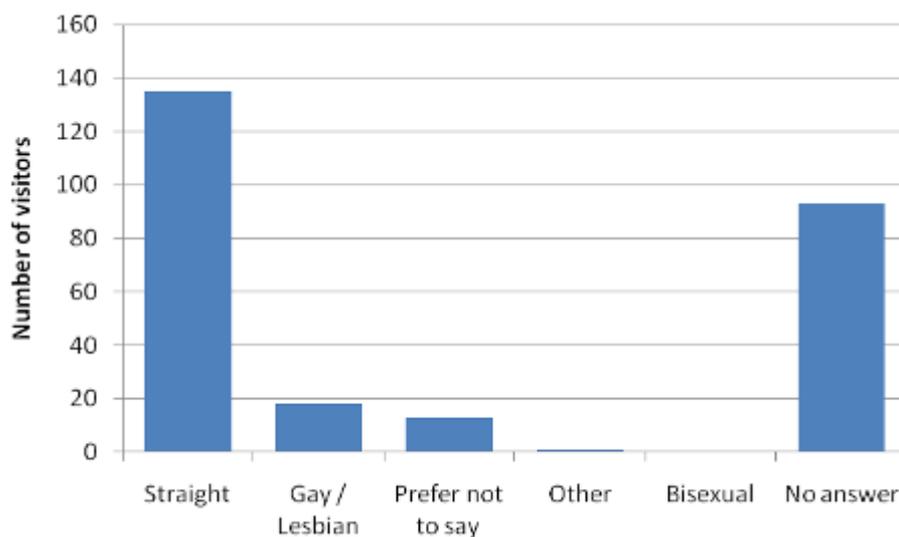
**Figure 23: Eco Open Houses visitors by gender**



## Self-identified sexuality

From the people that completed feedback forms, 77% were straight, 12% Gay / Lesbian, with 2 bisexual people and 1 was other. 8% of visitors preferred not to state their sexuality. The visitors' self-identified sexuality demographic is shown below.

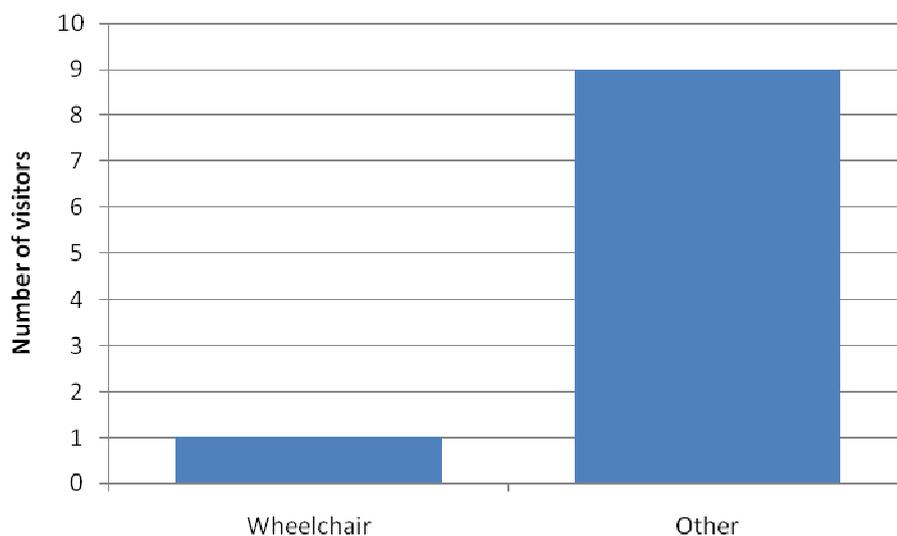
**Figure 24: Eco Open Houses visitors by self-identified sexuality**



## Mobility

From the people that completed feedback forms, 10 people reported they had mobility issues. This is summarised in the graph below.

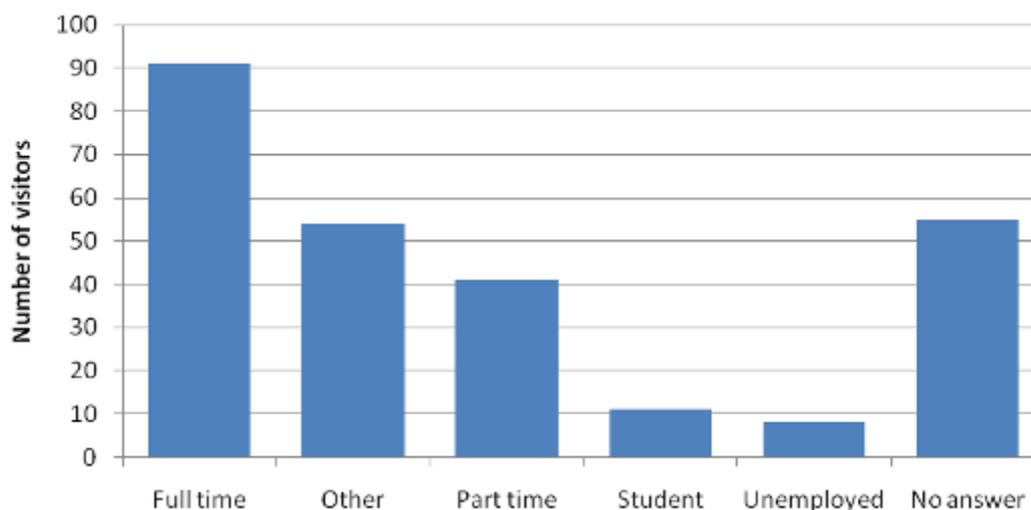
**Figure 25: Eco Open Houses visitors by mobility**



## Employment status

From the people that completed feedback forms, 43% were in full time employment, 23% in part time employment, 5% were students and 3% were unemployed. The visitors' employment status demographic is shown below.

**Figure 26: Eco Open Houses visitors by employment status**

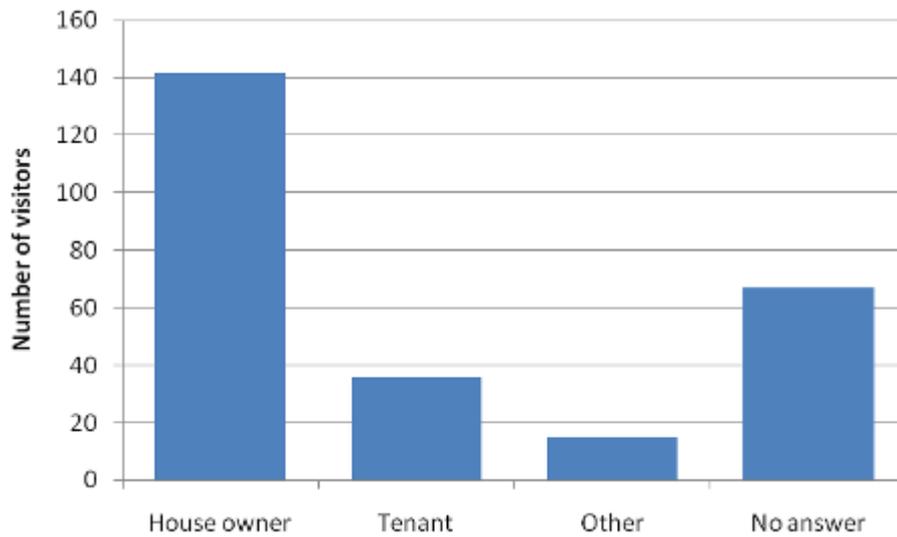


Note: Other e.g. retired or self-employed

## Housing status

From the people that completed feedback forms, 76% were home owners, 17% were tenants and 7% 'other'. The visitors' housing status demographic is shown below.

**Figure 27: Eco Open Houses visitors by housing status**



## Householder feedback

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

- Of this three events we've been involved in this has been the best because of: knowing how the event would be; volunteers with specialised knowledge and our visitors seemed targeted in what they hoped to learn from us.
- Positive response from visitors
- It was a fun couple of days
- Showing people the vestures of a low energy house
- It was quite a pleasure. I enjoyed answering questions from non-professionals about the design and sustainable elements of One Brighton
- The opportunity to tell people what is possible. Really enjoyed the whole experience
- Talking to similar minded people
- Enthusiastic punters
- It felt really good, but I lost my voice by the end!
- Got a buzz out of sharing what we've done. Met some good people. It all felt good
- It was great to see that someone was really excited having coming from Wilbury Open House and was really committed to getting solar thermal as a result
- We had a visitor who had actually commissioned and installed PV since going to the September Eco open House event (Ditchling Rise Open House). After visiting us in October he wanted to get the same Sunny Beam monitor we have

*What did you find the most difficult / problematic?*

- We had two groups of visitors who we couldn't help from our experience: flat dwellers or private tenants who can't implement more than modest improvements and single occupiers who couldn't afford anything beyond draft proofing and eco-lighting
- During one session there were too many visitors as we were the only 'open' house, and some stayed longer than necessary, 4 people arrived late after the session had finished
- Not having enough helpers for one of the afternoon sessions
- Some of the tours weren't full due to late cancellations
- Trying to fit the tours into my regular work day
- Not difficult, but didn't know how many to expect
- Control of numbers
- Someone had got a print out from Heritage Open Days saying we were open on the wrong day
- Nowt
- Tidying the house before!
- That people had issues with the booking system
- When there were no shows from the bookings, it was a shame because other people who wanted to come were unable to because the bookings were taken

*What could be done about that for next year?*

- Have mechanisms to provide information for private tenants and to help them with their landlords

- Two helpers per slot plus me
- Have a system to cater for cancellations and have a waiting list for replacements
- I don't want to reduce the number of tours I have to do. It's likely to be more manageable next year (One Brighton)
- Give an idea of numbers expected
- Person on the door who knows what the problem is and how to handle it. Main problem was it as the first time we had done it and we didn't really know what was going to happen.
- Keep the house tidy all the time? Life's too short
- Maybe bookings should involve a payment, that way people would be less likely to not turn up

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

- Very well
- Very well
- There was a brief hiccup when tour parties were going directly to the sales room for the tour. I think this is probably because this is where tours started in previous years. Other than this miscommunication, I was generally kept well informed (One Brighton)
- Kept informed by email but really don't need much info
- Well
- Well.
- I thought it was all really well organised

*Communications - on balance, would you have liked more / less email / phone / meetings?*

- We had a good feel for how the event was likely to go
- The same
- Just right
- I think more online information would have helped me. All other communication was fine
- Probably more but then if we do it again next year then there was enough. Perhaps you need more for the "first timers"
- About right

*Did you feel we provided you with enough materials (banner/case study/leaflets) to ensure the event went smoothly? Could have more copies of case study and eco open house booklet?*

- Yes
- Everything was well provided for
- Yes. Handouts were great
- Yup

*Any suggestions for future years?*

- Need 3 people manning, one to open door and count, one downstairs and one upstairs
- Slightly better advertising – many people heard about the event after it was n and wished they'd known about it earlier

- Perhaps a phone call prior to the event to run through what tour parties might be expecting and what information they've already been given would be useful.
- A leaflet of how to get stuff done in Brighton & Hove, i.e. do you need planning and if so what to do?

*Volunteers – were there enough?*

- Short on one session
- Yes
- Yes, I had at least one volunteer for each tour
- Yes
- We only needed one at the gate so that was fine
- Yup
- Yes

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

- Huge thanks to our volunteers (especially Sally Hutchinson, Jessica Evers, Alex Hunt, Terry Robinson and Paul Tompsett), they were amazing and well informed. We would never have coped without Sally
- Excellent
- Very good
- They were all friendly and punctual and also asked their own questions which was useful
- Not informed on the house, but that did not matter, otherwise excellent
- Good and not so good.
- All good
- Good. We didn't need them much but just opening the door was a vital role

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

- One volunteer too shy to get involved talking to visitors and we could have given her the job of counting if she'd let us know
- One volunteer arrived after the event had started so missed our introduction to the house and dealing with this took me away from talking to visitors and was not helpful. If the volunteer arrived 30 minutes before the event this would have been avoided
- None
- No
- None whatsoever. They should be commended for their professionalism
- None
- The good volunteers we had were great; they knew what to do and how to handle everything. But we also got one who didn't have any idea, which as we didn't know much about what was going to happen was problematical. Volunteers need to realise that they are actually "doing a job" and not just there if they feel they haven't anything better to do
- Nope
- No

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

- Eco Open Houses might consider being at Trade Fairs or markets with a mixture of Eco Open householders and volunteers to appeal to a wider audience? Or we are happy to talk to small groups outside event times
- I would like to be able to visit other eco open houses so is it possible to allow for this?
- No
- I think more widespread coverage in the media would be helpful, with a launch party perhaps. Although I had plenty of people during my tours and I don't think I could have handled many more
- More houses! I might try tour times rather than booking as this meant a lot of people dropped out having filled up the bookings
- Training of new volunteers
- Pretty good we think
- A chance to meet the other householders and see the other houses would be really welcome

*Would you be interested in taking part again next year?*

- Yes
- Yes circumstances permitting
- Yes, please contact me.
- Yes
- Definitely
- Yup

## Volunteer feedback

There were 22 volunteers working during the September event and around 8 for the October weekend. For the 4 days in September there were at least 2 volunteers for almost every property, and at least one for the October event. All the volunteers were enthusiastic, and around a third were drawn from the drawn from CAT or AECB networks and had technical knowledge about eco building or energy efficiency. The feedback below was from 13 of the volunteers from the September event.

### Overview

On the whole the volunteers enjoyed the event, especially meeting interesting people, learning a lot and feeling helpful. The things they would have changed were less to do with the volunteer role and more about the event. In particular many had concerns about One Brighton – finding the event, not seeing a flat or the boiler, and most felt the online booking process was problematic – too complicated, technical glitches, no facility for cancelling. However most volunteers thoroughly enjoyed the event and would volunteer again next year.

What volunteers liked about the experience:

- Very enjoyable
- Well organised
- Met interesting people
- Learned a lot
- Enjoyed feeling useful
- Looking at eco homes

Things they didn't like:

- Waiting for people to show up for tours
- Spaces lost on tours through 'no shows'
- Length of the feedback form, which visitors were often reluctant to complete at every house
- Earthship was difficult to access for those less able
- One Brighton was difficult to find, no flat was shown or the biomass boiler, and the tour guide was distracted with other work
- Lover's Walk was a bit disorganised, but the speaker give a good pitch considering
- One volunteer preferred to wear a badge rather than a T-shirt

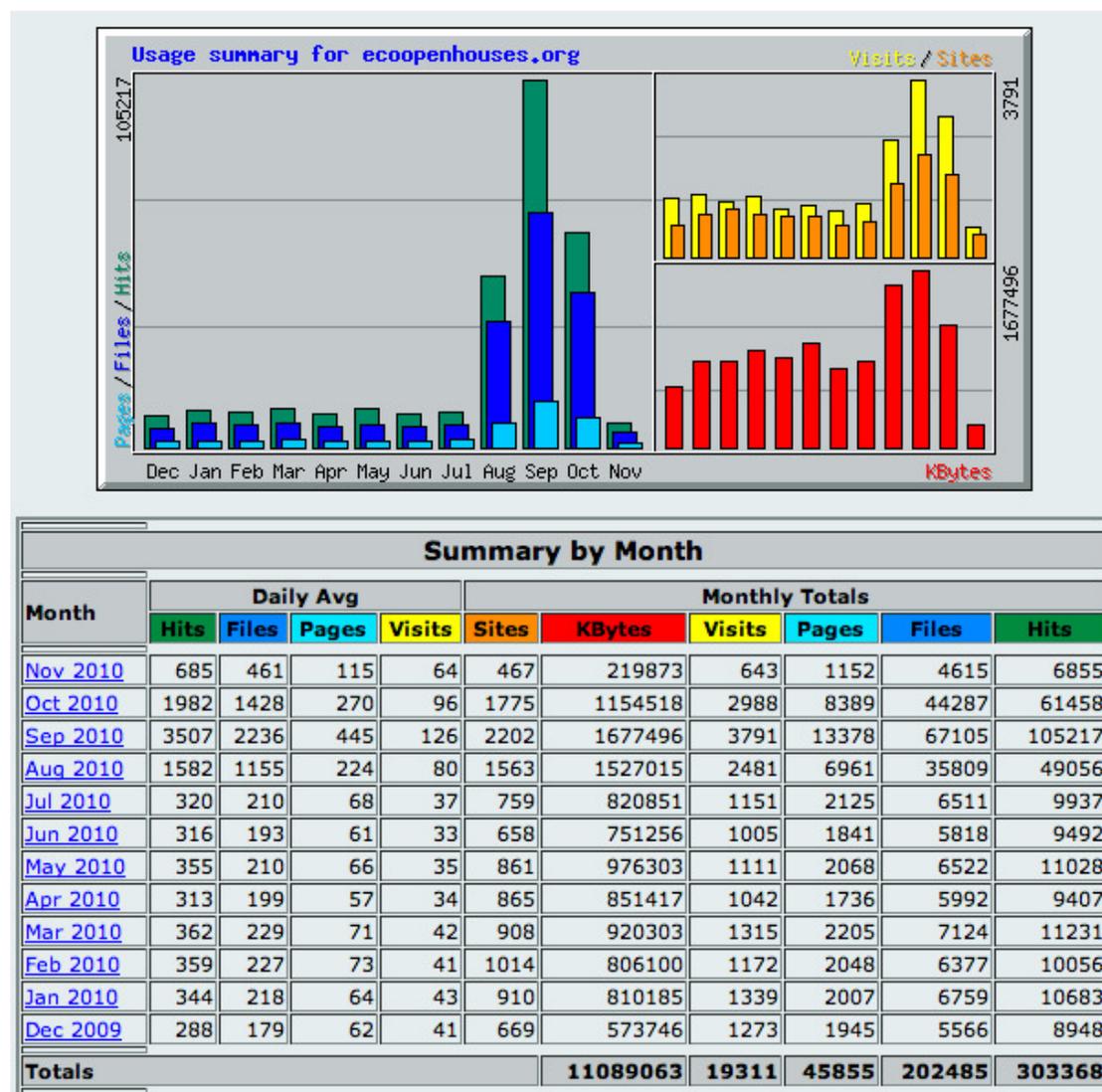
From the perspective of organising the event, volunteers seemed to really appreciate having a range of ways of accessing information about the features of the property they would be working at, however if it were possible to have a 'launch' at a future event, and invite both householders and volunteers it would be beneficial, and rewarding for all concerned.

The September event ran very smoothly from a volunteer perspective, though the October event was more problematic without a hands-on organiser present. This should be considered for next year.

## Website visitors

The visitors to the Eco Open Houses website, [www.ecoopenhouses.org](http://www.ecoopenhouses.org) are shown in the figure below. Unfortunately, none of the metrics indicate the number of actual visitors, although the trend of relative change from month to month during the period of the event and the effect of publicity can be seen.

**Figure 28: [www.ecoopenhouses.org](http://www.ecoopenhouses.org) visitors**



### Key to figure

Hits - represent the total number of requests made to the server during the given time period (month, day, hour etc.).

Files - represent the total number of hits (requests) that actually resulted in something being sent back to the user. Not all hits will send data, such as 404-Not Found requests and requests for pages that are already in the browsers cache.

Sites - the number of unique IP addresses/hostnames that made requests to the server. Care should be taken when using this metric for anything other than that. Many users can appear to come from a single site, and they can also appear to come

from many IP addresses so it should be used simply as a rough gauge as to the number of visitors to your server.

Visits - these occur when some remote site makes a request for a page on your server for the first time. As long as the same site keeps making requests within a given timeout period, they will all be considered part of the same Visit. If the site makes a request to your server, and the length of time since the last request is greater than the specified timeout period (default is 30 minutes), a new Visit is started and counted, and the sequence repeats. Since only pages will trigger a visit, remote sites that link to graphic and other non- page URLs will not be counted in the visit totals, reducing the number of false visits.

Pages - are those URLs that would be considered the actual page being requested, and not all of the individual items that make it up (such as graphics and audio clips). Some people call this metric page views or page impressions, and defaults to any URL that has an extension of .htm, .html or .cgi.

KByte (KB) - is 1024 bytes (1 Kilobyte). Used to show the amount of data that was transferred between the server and the remote machine, based on the data found in the server log.

## Publicity

The publicity channels for the event were:

- 6,000 brochure printed with 4,000 being distributed in Brighton & Hove, 1,000 in Sussex, 500 in libraries and the rest in the Eco Open Houses
- Eco Open Houses website – [www.ecoopenhouses.org](http://www.ecoopenhouses.org)
- Low Carbon Trust website – [www.lowcarbon.co.uk](http://www.lowcarbon.co.uk)
- Brighton Permaculture website – [www.brightonpermaculture.co.uk](http://www.brightonpermaculture.co.uk)
- Brighton & Hove City Council website – [www.brighton-hove.gov.uk](http://www.brighton-hove.gov.uk)
- Website listings

## Press coverage:

- BBC Southern Radio - Breakfast Show – broadcast on 8<sup>th</sup> September 2010
- Latest Homes magazine published 28<sup>th</sup> October 2010
- News from Brighton website - <http://newsfrombrighton.co.uk/brighton-property-news/brightons-eco-houses-to-open-their-doors-to-the-public/>
- The Environmentalist Issue 107 published 1<sup>st</sup> November 2010

## Project finances

The total project budget of £19,763 is set out below. The main funding was from Energy Saving Trust of £14,100, with match funding through BHCC resources and in-kind voluntary contribution.

**Figure 29: Eco Open Houses 2010 budget**

No	Item	EST	Match	VAT	Total
	Promotional materials				
1	Printing brochures x 6,000 (24 pages)	£1,674			£1,674
2	Distribution of brochures	£285		£50	£335
3	Print of case studies		£220		£220
4	Print of technical reports & pledge forms		£50		£50
5	Delivery of promotional materials		£160		£160
6	Banner update	£150		£26	£176
7	Smart meters	£250		£44	£294
8	T-Shirts	£200			£200
	Technical reports				
9	Technical reports on new houses	£150		£26	£176
	Design				
10	Photographer	£110			£110
11	Design of brochure	£1,180			£1,180
12	Map design for brochure		£250		£250
13	Design of exhibition panels	£300			£300
14	Design of case studies	£175			£175
15	Design of feedback / pledge forms	£92			£92
	Website				
16	Domain name	£14		£2	£16
17	Webspace hosting	£18		£3	£21
18	Update of website	£620			£620
	Energy efficiency seminars				
19	Venue hire	£500		£88	£588
20	Speakers	£250		£44	£294
21	Catering	£100		£18	£118
	Project co-ordination				
22	Project Management	£4,000		£700	£4,700
23	BHCC Officer time, including press & delivery of materials		£2,300		£2,300
24	Volunteer coordination, finance handling, tel enquiries	£1,250			£1,250
25	Monitoring & evaluation	£750			£750
26	Householder support - in kind volunteer contribution		£2,250		£2,250
27	BHCC Insurance		£500		£500
28	Publicity / Press coordination	£600		£105	£705
29	BHCC Meeting room hire & catering		£80		£80
30	Survey Monkey subscription	£180			£180
	<b>Total</b>	<b>£12,848</b>	<b>£5,810</b>	<b>£1,105</b>	<b>£19,763</b>

## Appendix 1: Sample feedback & pledge form

# Feedback



Please let us know what you thought:

Comments:

Did you learn something from visiting this property?	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No	
Did you feel features were adequately explained?	<input type="checkbox"/> Yes, very well <input type="checkbox"/> Quite well <input type="checkbox"/> Not enough <input type="checkbox"/> No	
What sorts of elements did your visit include?	<input type="checkbox"/> Discussion with the home owner <input type="checkbox"/> Discussion with an energy professional <input type="checkbox"/> Access to leaflets with information and advice you could pick up and read <input type="checkbox"/> Nothing, I just walked round	
What did you think of the Eco Open Houses brochure and website?	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Average <input type="checkbox"/> Poor <input type="checkbox"/> Very poor	
Has the visit influenced you to do anything around reducing your energy consumption?	<input type="checkbox"/> Yes (Please use pledge overleaf to indicate intended actions) <input type="checkbox"/> No (Please tell us why)	
If yes, do you feel you have been provided with all the appropriate information to you require to take action? If no, what do you still require?		
Has the visit improved your understanding on the impact your home has on climate change?	<input type="checkbox"/> Yes <input type="checkbox"/> Maybe <input type="checkbox"/> No	
Are you pleased you came?	<input type="checkbox"/> Yes <input type="checkbox"/> Not sure <input type="checkbox"/> No	
What motivated you to attend?		
How could the experience be improved in the future?		
Where did you hear about Eco Open Houses	<input type="checkbox"/> Brochure <input type="checkbox"/> Email <input type="checkbox"/> Press <input type="checkbox"/> Advert <input type="checkbox"/> Word of mouth <input type="checkbox"/> Energy Saving Trust advice centre/helpline <input type="checkbox"/> Other ... please say how	

Please fill in your contact details if you are entering for a prize or would like more information by email

Name:	House visited:
Telephone number:	Email address:
Address:	Post code:

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 and Hove City Council (weekly): local events, jobs, funding

Eco Open Houses is collecting feedback to help us ensure future events are a success. We share feedback with the Energy Saving Trust, which is evaluating exemplar home events like this. Please tick the box if you prefer not to be contacted by Energy Saving Trust to discuss your feedback in more detail

We would be grateful if you would complete the following 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

Gender:  Male  Female  Transgender

Are you:  Student  Unemployed  Employed part-time  Employed full-time  Other

Are you:  tenant with council, housing association, private landlord  house owner  Other

Mobility:  use a wheelchair  have other mobility issues

Ethnic background: White:  British  Irish  Other

Black or Black British:  Caribbean  African  Other

Mixed:  White and black Caribbean  White and black African  White and 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 RETURN THIS FORM AND YOU COULD WIN A PRIZE!**

Please place in feedback box at an eco house, or post to: Earthship Brighton, Stanmer Park, Brighton, BN1 9PZ

# Pledge

DATE:



I pledge to ...

Cost	I am already doing	I will do from now on	I will do within a year	I will do within 3 years
------	--------------------	-----------------------	-------------------------	--------------------------

**Research my options by:**

Contacting an energy professional or organisation to help you reduce your energy consumption in your home	No cost				
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**Reduce my gas use for water and space heating by:**

Turning my central heating down by a couple of degrees	No cost and saves money!				
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					
Start monitoring my gas use to see how much I'm saving					
Check my boiler is running efficiently	£65				
Replace my boiler with a very efficient one	£800				
Insulate my loft	£100*				
Insulate external walls if possible, or fill cavity wall	£450–£1,500*				
Insulate the ground floor	£500–£2,500*				
Invest in solar thermal energy (solar panels to preheat water for heating)	£3,000– £4,500*				
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)	£2,500 to install				

**Reduce my electricity use by:**

Always turning off unnecessary lighting	No cost and saves money!				
Always turning plugs and electrical items and technology off					
Start monitoring my electricity use to see how much I'm saving					
Switch to a green energy supplier that invests in renewables (wind/solar/tidal/biomass)	an extra £10 per quarter				
Replace all my lights bulbs with energy efficient versions	approx £60				
When buying new appliances, buy 'A' rated					
Get intelligent energy saving plugs for 'white goods'. Try Centre for Alternative Energy online shop <a href="http://www2.cat.org.uk/shopping">www2.cat.org.uk/shopping</a>	£25–75				
Install photovoltaic (solar) panels or tiles – depending on situation but could supply all electricity needs for low energy light bulbs and more	£5,000–£10,000				

**Save water by:**

Installing a water meter (free from my water company) and start monitoring how much water I can save by simple measures see <a href="http://www.southernwater.co.uk">www.southernwater.co.uk</a>	No cost and saves money!				
Get a water butt for watering my garden	£25				
When buying new, buy low water use shower heads, washing machines and dual flush toilets					
Invest in a rainwater harvesting system for toilets and washing machine	£5,500				
Invest in greywater system for watering the garden	0–£200				

**Use natural materials by:**

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 affects well-sealed, well-insulated buildings and to promote local green industries of which there are many in Brighton and South East England)	Costs of green materials: about twice the norm				
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\*See council grants page in brochure for possible grant funding

**FILL IN A FEEDBACK FORM FOR A HOUSE YOU VISIT AND YOU COULD WIN A PRIZE!**

## Appendix 2: Pledged energy & CO<sub>2</sub> saving and Financial investments

Figure 32: Pledged energy savings over a three year period

No	House	Energy saving (kWh)			
		Gas	Electricity	Water	Total
1	One Brighton	279,237	17,044	569	296,850
2	Brighton Earthship	466,068	81,226	1,132	548,426
3	15 Lloyd Close	652,790	144,026	1,380	798,195
4	73 Wilbury Crescent	809,416	161,200	2,065	972,681
5	20 Avondale Road	391,774	74,372	1,241	467,387
6	5 Dyke Road Avenue	169,563	32,044	139	201,746
7	15 Deanway	0	0	0	0
8	3 Lovers Walk	240,563	54,677	519	295,759
9	Yew Tree House	522,837	131,274	1,326	655,438
10	1a Whichelo Place	492,763	104,493	1,508	598,764
11	111 Ditchling Rise	706,332	146,342	1,514	854,188
12	6 Southdown Avenue	498,495	113,419	1,152	613,065
13	4 Whichelo Place	686,047	164,816	1,851	852,715
14	76 Westfield Crescent	237,221	64,395	458	302,075
15	Survey Monkey	256,532	51,637	4,965	313,134
	<b>Total</b>	<b>6,409,637</b>	<b>1,340,965</b>	<b>19,820</b>	<b>7,770,422</b>

Note: Survey Monkey refers to responses collected online using Survey Monkey software

**Figure 33: 'Already doing' energy savings over a three year period**

No	House	Energy saving (kWh)			
		Gas	Electricity	Water	Total
1	One Brighton	65,047	3,526	76	68,649
2	Brighton Earthship	122,311	9,279	121	131,711
3	15 Lloyd Close	141,342	28,147	257	169,746
4	73 Wilbury Crescent	189,168	28,984	250	218,403
5	Avondale Road	103,537	15,214	231	118,982
6	5 Dyke Road Avenue	42,505	7,912	7	50,423
7	15 Deanway	0	0	0	0
8	3 Lovers Walk	51,905	10,672	37	62,615
9	Yew Tree House	140,232	25,567	204	166,003
10	1a Whichelo Place	136,247	17,405	314	153,966
11	111 Ditchling Rise	184,026	36,100	421	220,548
12	Southdown Avenue	111,274	14,879	143	126,296
13	4 Whichelo Place	143,237	25,265	345	168,847
14	Westfield Crescent	68,384	10,184	84	78,652
15	Survey Monkey	44,247	10,463	155	54,865
	<b>Total</b>	<b>1,543,463</b>	<b>243,595</b>	<b>2,646</b>	<b>1,789,705</b>

Note: Survey Monkey refers to responses collected online using Survey Monkey software

**Figure 34: Pledged CO<sub>2</sub> savings over a three year period**

No	House	Carbon dioxide saving (tCO <sub>2</sub> )			
		Gas	Electricity	Water	Total
1	One Brighton	53.06	7.33	0.24	60.63
2	Brighton Earthship	88.55	34.93	0.49	123.97
3	15 Lloyd Close	124.03	61.93	0.59	186.55
4	73 Wilbury Crescent	153.79	69.32	0.89	223.99
5	20 Avondale Road	74.44	31.98	0.53	106.95
6	5 Dyke Road Avenue	32.22	13.78	0.06	46.06
7	15 Deanway	0.00	0.00	0.00	0.00
8	3 Lovers Walk	45.71	23.51	0.22	69.44
9	Yew Tree House	99.34	56.45	0.57	156.36
10	1a Whichelo Place	93.63	44.93	0.65	139.21
11	111 Ditchling Rise	134.20	62.93	0.65	197.78
12	6 Southdown Avenue	94.71	48.77	0.50	143.98
13	4 Whichelo Place	130.35	70.87	0.80	202.02
14	76 Westfield Crescent	45.07	27.69	0.20	72.96
15	Survey Monkey	48.74	22.20	2.13	73.08
	<b>Total</b>	<b>1,217.83</b>	<b>576.62</b>	<b>8.52</b>	<b>1,802.97</b>

Note: Survey Monkey refers to responses collected online using Survey Monkey software

**Figure 35: 'Already doing' CO<sub>2</sub> savings over a three year period**

No	House	Carbon dioxide saving (tCO <sub>2</sub> )			
		Gas	Electricity	Water	Total
1	One Brighton	12.36	1.52	0.03	13.91
2	Brighton Earthship	23.24	3.99	0.05	27.28
3	15 Lloyd Close	26.86	12.10	0.11	39.07
4	73 Wilbury Crescent	35.94	12.46	0.11	48.51
5	20 Avondale Road	19.67	6.54	0.10	26.31
6	5 Dyke Road Avenue	8.08	3.40	0.00	11.48
7	15 Deanway	0.00	0.00	0.00	0.00
8	3 Lovers Walk	9.86	4.59	0.02	14.47
9	Yew Tree House	26.64	10.99	0.09	37.73
10	1a Whichelo Place	25.89	7.48	0.14	33.51
11	111 Ditchling Rise	34.97	15.52	0.18	50.67
12	6 Southdown Avenue	21.14	6.40	0.06	27.60
13	4 Whichelo Place	27.22	10.86	0.15	38.23
14	76 Westfield Crescent	12.99	4.38	0.04	17.41
15	Survey Monkey	8.41	4.50	0.07	12.97
	<b>Total</b>	<b>293.26</b>	<b>104.75</b>	<b>1.14</b>	<b>399.14</b>

Note: Survey Monkey refers to responses collected online using Survey Monkey software

Figure 36: Visitor financial investments

Item	Cost bracket		Time frame				Total costs	
	Lower	Higher	Will do now	Will do within a year	Will do within 3 years	Total	Lower	Higher
Solar Thermal Hot Water	£3,000	£4,500	6	8	39	53	£159,000	£238,500
Underfloor heating	£2,500	£2,500	3	3	28	34	£85,000	£85,000
Solar PV	£5,000	£10,000	5	5	32	42	£210,000	£420,000
Rainwater harvesting	£5,500	£5,500	5	5	33	43	£236,500	£236,500
Replace boiler	£800	£800	9	15	24	48	£38,400	£38,400
Insulate cavity walls	£450	£1,500	9	18	21	48	£21,600	£72,000
Insulate ground floor	£500	£2,500	8	16	23	47	£23,500	£117,500
Buy A rated appliances	£160	£1,500	32	9	6	47	£7,520	£70,500
Low water units	£100	£1,400	31	16	12	59	£5,900	£82,600
Grey water systems	£200	£200	8	14	24	46	£9,200	£9,200
Loft insulation	£100	£100	15	17	8	40	£4,000	£4,000
Replace light bulbs	£60	£60	20	12	2	34	£2,040	£2,040
Energy savings plugs	£25	£75	45	25	8	78	£1,950	£5,850
Install Water meter	£0	£0	20	20	12	52	£0	£0
Water butt	£25	£25	14	14	13	41	£1,025	£1,025
Boiler Checks	£65	£65	29	23	3	55	£3,575	£3,575
Switch to Green energy	£30	£30	19	28	17	64	£3,900	£3,900
Energy Professional	£0	£0	24	25	15	64	£0	£0
Natural materials	£0	£0	27	16	15	58	£0	£0
<b>Total</b>							<b>£813,110</b>	<b>£1,390,590</b>

### Appendix 3: Energy saving measures

Figure 37: Energy saving measures

Pledge	Cost	Annual CO <sub>2</sub> saving (Kg or litres)	Internet Link	Comment
Contact energy professional	£0		<a href="http://www.energysavingtrust.org.uk/Publication-Download/?oid=1657789&amp;cg=corporatedocs&amp;ci=energyst">http://www.energysavingtrust.org.uk/Publication-Download/?oid=1657789&amp;cg=corporatedocs&amp;ci=energyst</a>	Not quantified
Central heating down 2°	£0	600	<a href="http://www.dothegreenthing.com/wiki/display/WIKI/Turn+down+thermostats+on+room+heating">http://www.dothegreenthing.com/wiki/display/WIKI/Turn+down+thermostats+on+room+heating</a> .	Variable figures and are likely to be affected by other measures (see heat control measures)
Extra jumper instead of heating	£0	300	<a href="http://www.dothegreenthing.com/wiki/display/WIKI/Turn+down+thermostats+on+room+heating">http://www.dothegreenthing.com/wiki/display/WIKI/Turn+down+thermostats+on+room+heating</a> .	
Turn off radiators in rooms not used	£0	45	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Heating-and-hot-water/Thermostats-and-heating-controls">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Heating-and-hot-water/Thermostats-and-heating-controls</a>	Figure from house with six rooms
Use heavy curtains to keep heat in	£0	176	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Home-insulation-glazing/Draught-proofing">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Home-insulation-glazing/Draught-proofing</a>	Figure used relates to draught-proofing
Make sure heating is off when I'm out	£0	270	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Heating-and-hot-water/Thermostats-and-heating-controls">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Heating-and-hot-water/Thermostats-and-heating-controls</a>	
Quick showers	£0	315	<a href="http://articles.kyero.com/reduce-your-carbon-footprint/578">http://articles.kyero.com/reduce-your-carbon-footprint/578</a>	Daily shower figure used
Monitor gas use see how much I'm saving	£0		<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Smart-meters-your-questions-answered">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Smart-meters-your-questions-answered</a>	Not quantified
Check boiler is running efficiently	£65		<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Heating-and-hot-water/Thermostats-and-heating-controls">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Heating-and-hot-water/Thermostats-and-heating-controls</a>	Not quantified
Replace boiler with very efficient one	£800	1,100	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Heating-and-hot-water">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Heating-and-hot-water</a>	Assumes lowest rating boiler
Insulate my loft	£100	210	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Home-insulation-glazing/Loft-insulation">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Home-insulation-glazing/Loft-insulation</a>	Assumption made that households had insufficient insulation rather than none

Insulate external walls if possible or cavity wall	£450 to £1500	560	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Home-insulation-glazing/Cavity-wall-insulation">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Home-insulation-glazing/Cavity-wall-insulation</a>	Figure used equates to cavity wall insulation. Figures vary for external and internal wall insulation
Insulate the ground floor	£500 to £2500	240	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Home-insulation-glazing/Floor-Insulation">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Home-insulation-glazing/Floor-Insulation</a>	
Invest in solar thermal hot water	£3,000 to £4,500	350	<a href="http://www.heatinghelpline.org.uk/renewable-energy.php">http://www.heatinghelpline.org.uk/renewable-energy.php</a>	
Install underfloor heating	£2,500	665	<a href="http://www.optimumenergysolutions.co.uk/home-energy-building-improvements.asp">http://www.optimumenergysolutions.co.uk/home-energy-building-improvements.asp</a>	Cost saving 15% of heating
Always turn off unnecessary lighting	£0	30	<a href="http://www.energysavingtrust.org.uk/Easy-ways-to-stop-wasting-energy/Stop-wasting-energy-and-cut-your-bills/Tips-to-help-you-stop-wasting-energy/Stop-wasting-energy-in-your-living-room">http://www.energysavingtrust.org.uk/Easy-ways-to-stop-wasting-energy/Stop-wasting-energy-and-cut-your-bills/Tips-to-help-you-stop-wasting-energy/Stop-wasting-energy-in-your-living-room</a>	
Always turn plugs and electrical items off	£0	133	<a href="http://www.energysavingtrust.org.uk/Easy-ways-to-stop-wasting-energy/Stop-wasting-energy-and-cut-your-bills/Tips-to-help-you-stop-wasting-energy/Stop-wasting-energy-in-your-living-room">http://www.energysavingtrust.org.uk/Easy-ways-to-stop-wasting-energy/Stop-wasting-energy-and-cut-your-bills/Tips-to-help-you-stop-wasting-energy/Stop-wasting-energy-in-your-living-room</a>	
Start monitoring my electric use	£0	0	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Smart-meters-your-questions-answered">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Smart-meters-your-questions-answered</a>	Not quantified
Switch to green energy supplier	Extra £10 per quarter	1,089	<a href="http://www.electricityinfo.org/">http://www.electricityinfo.org/</a>	
Replace my light bulbs with energy efficient ones	Approx £60	172	<a href="http://www.energysavingtrust.org.uk/Home-improvements-and-products/Lighting">http://www.energysavingtrust.org.uk/Home-improvements-and-products/Lighting</a>	
Buy 'A' rated appliances in future	£350 to £2,000	140	<a href="http://www.energysavingtrust.org.uk/Energy-saving-assumptions">http://www.energysavingtrust.org.uk/Energy-saving-assumptions</a>	Figures relate to new fridge and freezer
Get intelligent energy saving plugs	£25 to £75	39	<a href="http://www.ethicalsuperstore.com/products/oneclick/energy-saving-intelli-plug-dsk-105/">http://www.ethicalsuperstore.com/products/oneclick/energy-saving-intelli-plug-dsk-105/</a>	Energy DESK claims that 84 KWh per year saved $84 \times 0.465 = 39\text{KgCO}_2$

Install solar PV	£5,000 to £10,000	1200	<a href="http://www.energysavingtrust.org.uk/Generate-your-own-energy/Solar-electricity#Costs,savingsandmaintenance">http://www.energysavingtrust.org.uk/Generate-your-own-energy/Solar-electricity#Costs,savingsandmaintenance</a>	Up to 1.2 tCO2 saved - may
Install a water meter	£0	2,500	<a href="http://www.moneysavingexpert.com/utilities/cut-water-bills">http://www.moneysavingexpert.com/utilities/cut-water-bills</a>	Water companies install water meters free of charge
Get a water butt for the garden	£25	210	<a href="http://www.waterbuttsdirect.co.uk/viewall.htm?gclid=CIXmnK-RIKYCFcoe4QodySSYYw">http://www.waterbuttsdirect.co.uk/viewall.htm?gclid=CIXmnK-RIKYCFcoe4QodySSYYw</a>	210 litre model
Buy low water use shower heads	£25	10,275	<a href="http://www.ecocamel.com/">http://www.ecocamel.com/</a>	
Washing machines	£200 to £1,500	15,000	<a href="http://www.waterwise.org.uk/reducing_water_wastage_in_the_uk/house_and_garden/choosing_a_washing_machine.html">http://www.waterwise.org.uk/reducing_water_wastage_in_the_uk/house_and_garden/choosing_a_washing_machine.html</a>	
Dual flush toilets	Approx £200	5,055	<a href="http://www.plumbworld.co.uk/tavistock-rio-close-coupled-2322-18290">http://www.plumbworld.co.uk/tavistock-rio-close-coupled-2322-18290</a>	
Invest in rainwater harvesting system	£5,500	29,700	<a href="http://www.rainwaterharvesting.co.uk/">http://www.rainwaterharvesting.co.uk/</a>	13,500 model used
Invest in grey water system for the garden	Up to £200	3,000	<a href="http://www.rainwaterharvesting.co.uk/">http://www.rainwaterharvesting.co.uk/</a>	

## **Appendix 4: Qualitative visitor's feedback**

### **Answers to: "What motivated you to attend?"**

#### **1. One Brighton**

- Good to see a completed development
- Interest in the eco principles used
- To learn; for appreciation on future projects
- Interest of sustainability
- Heard about this building and interested to see it
- Interest in large scale eco developments
- Enthusiasm for the concept. Saw building in development - wanted to see it in action
- Interest in local events/green energy etc
- Discovering what goes on in the city
- Particular interest in reducing Carbon and increasing efficiency
- Very interested in sustainable products
- Part of a business trip
- To visit the home
- European partners
- Professional reasons/discovering new practices
- Interested in eco architecture
- Interest
- Allotments good for social interaction; inadequate use of solar pv
- Green caretaker very knowledgeable and approachable
- Learn more, see theory in practice

#### **2. Earthship Brighton**

- Building earth bag domes in Rwanda
- Future desire to live in such a home
- Wind turbine
- Plan to build Earthship in next few years
- Friend
- Michael Reynolds - stated that will build an Earthship
- Heard about event for some time
- Interest in eco design
- Recommendation
- Constructing eco home - knowledge gain
- The environment
- To live off grid with my family is essential!
- Energy conservation
- I am going to live in one (Earthship)

#### **3. 15 Lloyd Close**

- Want to build own house
- Want to build
- Brochure explaining all aspects of eco house
- To see theoretical ideas in practice
- Interest in newly built energy efficient house

- Desire to develop my own property - incl energy efficiency
- Had gone to Lewes eco homes
- Educational value
- Interested to see a Brighton new build
- Own renovation
- Curiosity
- I am an electrician looking to eco build
- Desire to put green roofs and PV in place.
- Interest
- Planning eco renovation of house
- Urgent need to improve home insulation
- Save energy/Nature
- Pure curiosity & to gather ideas for own future projects
- Personal knowledge
- To get inspired & informed for upcoming house move
- I came to an ecohouse 2 years ago - very good

#### **4. 73 Wilbury Crescent**

- Business trip
- Want to improve energy efficiency of own home
- Visited with friend
- European Project
- Eco House leaflet
- My "eco" son who studied architecture
- Interested in eco architecture
- To save money
- My friend
- Interested in seeing energy saving devices
- Interested in how this could apply to a 'normal' home
- Interest
- Interest in energy saving and climate change
- Wanted to reduce my Carbon footprint
- Friend's invitation
- Already interested
- EcoFab partnership

#### **5. 20 Avondale Road**

- Interest in renewables and saving money
- Interested in environmental issues
- Picking up the brochure the evening before (the event)
- Interest in new technology
- Want to learn
- To get inspiration & info for planned house move
- General interest
- To see another house with new features
- Interested friend booked
- Practical info, inspiration
- Interest
- LED lighting I saw on website
- Interest

- Business trip
- Leading Sustainability for Sussex Coast College Construction Dept
- Selected a range of buildings, rather than this type in particular
- Beautiful home - adapted refit of old house
- Interested to see what other people have done
- Interested to see ideas in action
- To see what can be done
- Strong interest in environmental issues
- Info on eco features

### **6. 5 Dyke Road Avenue**

- Interest
- New build
- Husband interested (architect)
- Want to learn more about energy efficient housing
- Saw on EHOD website - will visit more in Oct
- Business interest
- Interested in energy saving and environment
- Interior design using different materials
- Building an office and house
- Interest in eco architecture
- Already interested in eco homes
- Our house needs refurbishing & I am keen to understand what we could do with the house

### **8. 3 Lovers Walk**

- Interest in seeing inspiring examples
- Refurb at house
- Previous visits
- Practical knowledge of implementing retrofit options
- The options and possibilities
- Interest in sustainability

### **9. Yew Tree House**

- To see how low carbon houses are designed & get more info about their features.
- Desire to build eco house in the future
- Interest in eco design
- Building office
- General interest
- Email - I'm a regular
- Interest in eco build
- Friends involved
- Curiosity!
- CPD
- see friends
- Interested in sustainability
- We live in Hove
- The brochure and the possibility of seeing a real example

- Open House w/e & general interest in buildings
- I am interested in building my own home
- Seeing renewable technologies in place and in use
- Interest in houses consuming less energy
- I offer sustainable architecture
- Wife
- Finding out about m friends' house
- Friend
- Wanting inspiration for measures I want to take myself
- I know the owners
- Desire to build own house incorporating eco features
- Architect interest
- Acting on reducing CO2
- Been before plus my father built a similar project in Scotland
- To learn
- Seeing options implemented in a city
- Interest in eco/green issues
- Want to learn about building

#### **10. 1a Whichelo Place**

- Photovoltaics
- My studies in green building
- Interested in eco buildings and live close by
- Brochure and previous interest
- Planning a renovation
- Setting up eco co-housing community
- Interest
- Free beer - but it had all gone
- Want to build an Earthship
- Daughter-in-law
- Full arc of story from plot to house
- Interest in energy conservation/low carbon building
- I am an architectural technology student
- To see reality rather than photos
- Getting ideas
- Saw publicity
- Want to learn
- The brochure and living on Whichelo Place
- Would like to build eco house in the future
- Very interested in eco building
- Friends
- Interested in doing the same
- Exploration!
- Interested in new ideas
- Interest in sustainable buildings

#### **11. 111 Ditchling Rise**

- Passing
- In process of house move & have lived in an old, cold house before
- CPD

- Cost & CO2
- Have been to open houses before
- Residents AGM talk on PV and energy conservation
- Always interested in saving energy/cost
- Environmental/Financial imperatives
- Thinking of using techniques in my home
- My friend
- Sustainable aims
- Wish to improve existing house
- General interest in applying eco principles to old house
- Live locally and interested in eco housing
- Brochure
- Leaflet
- Relevance to own house
- Always been green aware
- Location
- Own house requires retrofit
- Cold damp house, concern over climate change!
- Interested anyway
- Want to try more eco measures in my own home
- Keen eco supporter

**Answers to: “How could the experience be improved in the future?”**

**1. One Brighton**

- Apply lessons learnt to similar work I undertake as an architect
- More technical info re biomass
- See more areas; more info on design and construction
- Combine with market share (?)
- More info on actual construction
- More details on materials, technical info
- Visit to a resident's apartment; quarter of marketing literature for the development
- Would be interesting to see an apartment
- To see a flat
- A bit more time & perhaps a look inside one of the flats
- Retro fit solutions at reasonable cost
- To have a leaflet with the main features of the building
- By exchanging ideas with French entrepreneurs
- Viewing of marketing suite
- Visit an apartment
- Access to flat and resident

**2. Earthship Brighton**

- Less use of cement
- More information on PV and wind turbines
- Practising beating tyres! (Presume earth ramming)

**3. 15 Lloyd Close**

- Builder could be present
- Not sure
- It was excellent
- It was very good
- Very well presented and informative
- Internal insulation & new windows instead of old sashes
- Provide feedback on actual energy data

#### **4. 73 Wilbury Crescent**

- Can't think of any
- More open houses, more awareness
- More open houses & less need to book
- Nothing much
- Attend more eco homes
- Very good already
- More open houses, rather than booking on internet which not everyone has
- Very good as it is
- If I ever get solar water heating
- Very good

#### **5. 20 Avondale Road**

- More places available for visits!
- Was v interesting; excellent
- It was fantastic - can't think of any improvements

#### **6. 5 Dyke Road Avenue**

- Maybe see more of the materials

#### **8. 3 Lovers Walk**

- Come back here when it is finished
- If I return to view completed project
- The insulation was in on early stage; so there wasn't much to see

#### **9. Yew Tree House**

- Sheet handout of the property incl diagrams & special features
- More technical information available
- Longer time to ask question
- More info on materials
- Group was a bit too big (ours was 12/15) - maybe smaller groups
- More flexible opening/visiting times
- Easier maps to find the properties including One way road systems?
- The group was a bit too big so hard to hear anything - smaller groups (max 7)
- By visiting once they have experienced their first winter!
- Don't think it could be
- Not much really, it's very nice and personal

**10. 1a Whichelo Place**

- Details of installation of underfloor heating
- Better booking - better directions
- Fully satisfied
- More time to view - lots were fully booked very fast!
- Demonstrations of energy savings measures
- More pens!

**11. 111 Ditchling Rise**

- You're doing a good job
- Better economic info