

# GREENhomes



Report of a Prototype

April 2007

## **Green Homes Prototype. Summary Report.**

### **Background**

1. In October 2006, the GLA commissioned Ecologika, in partnership with Ten UK, NES, the Green Register, the London Borough of Lewisham and the Design Council to prototype a domestic energy support service for able to pay households in London. The background to the service is detailed in the Business Plan for the service which was presented to the GLA in March 2006.

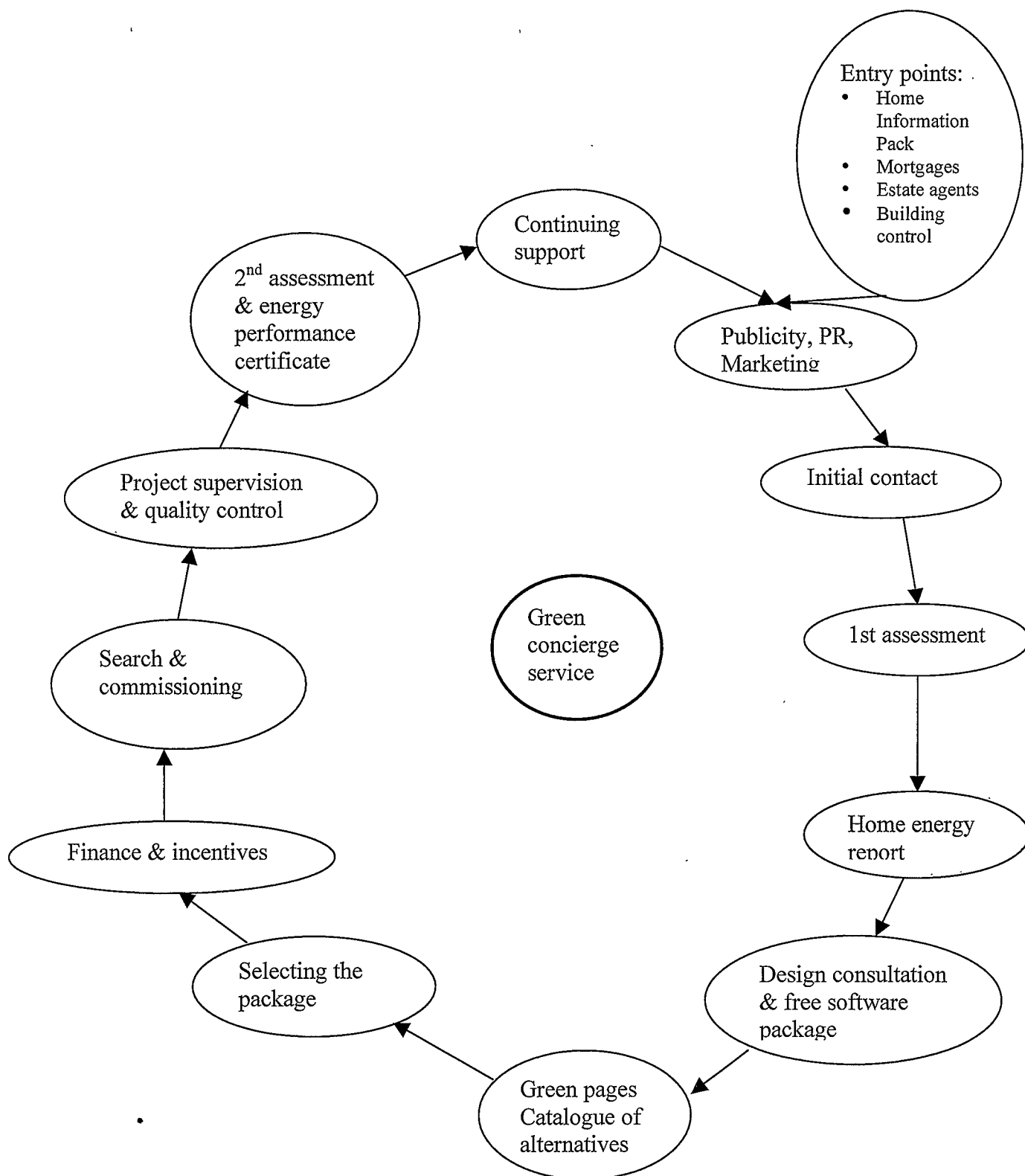
### **Project plan**

2. The plan was to explore what kind of service would assist households in improving their energy efficiency (and potentially their domestic energy production) at a price they would be willing to pay. The service would be offered to 40 households, initially focussed on Lewisham, with the aim of getting a take up rate in terms of household retrofits (and/or micro generation) of at least 25%.
3. The original model of the service is shown in Figure 1. The plan was to use the new legal requirements for an Energy Performance Certificate in the Home Information Pack for the sale of houses as an entry point to householders reinforced through a number of other marketing channels. The service would then provide a comprehensive audit of each household, as the basis for assisting householders in drawing up an operational plan, suited to the particular nature of the house and the householders' circumstances, for retrofitting/micro generation. The service would provide help in identifying appropriate trades people, as well as an incentive that would be paid at the conclusion of the works.
4. At the start of the project, a set of concept notes were prepared outlining the issues that needed to be tested out during the prototype. They are included as Appendix 1 to this report and covered:
  - Householder recruitment
  - Home auditing
  - The service modules
  - Incentives and low cost finance
  - Green Mortgages
  - The Green Web portal
  - Local Authority relations

### **The preparation phase**

5. The initial phase of the project was scheduled to run from mid October until the beginning of December 2006. The report on this phase is included as Appendix 2. The main point to note is that although auditing started as scheduled in early December, the distinction between preparation and operation was not as sharp as planned, with regular revisions and improvements of the materials and system as the project proceeded.

Figure 1 Elements of a Green Concierge Service



## The operation phase

### *Social marketing*

6. Recruitment was pursued through seven channels:

- Door drops to 2,800 houses in four wards chosen to reflect different house types and demographics
- Posters placed in Council offices, and shopping areas
- The website
- Referrals from the local EEAC
- Circular to 190 members of Ten UK living in the area
- Word of mouth
- An exhibition stand at an environmental event

The project intentionally did not engage with the press and media to avoid raising expectations of a service that was only at a prototype stage.

Table 1 summarises the responses.

**Table 1 Responses from communication channels**

Channel	Contacts	Enquiries	% conversion	Booked	% conversion
Word of mouth	30	21	70	15	69
Door Drops	2800	11	0	8	73
Poster	5	1	20	1	100
Website Enquiries	463	10	2	2	20
Ten members	190	12	6	9	75
EEAC referral (Lewisham)	n/a	1		1	100
Exhibition stand	100	4	4	4	100
<b>Totals to date</b>		<b>60</b>		<b>40</b>	<b>61%</b>

7. The doordrops had a low 0.39% response rate, leading to 11 enquiries and 8 booked audits. The Ten members, who represent the upper income level, had a response rate of 6% the majority of whom booked an audit. 15 of the 40 audits booked came from word of mouth contacts, either directly or at one remove.
8. The door drop response can be expected to increase if it is part of a publicity campaign that explains the significance of the audit, and of the Green Homes initiative, and re-enforcing the endorsement of the Mayor.

### *Households*

9. The response to the social marketing is summarised in Tables 2-5. The key points are as follows:

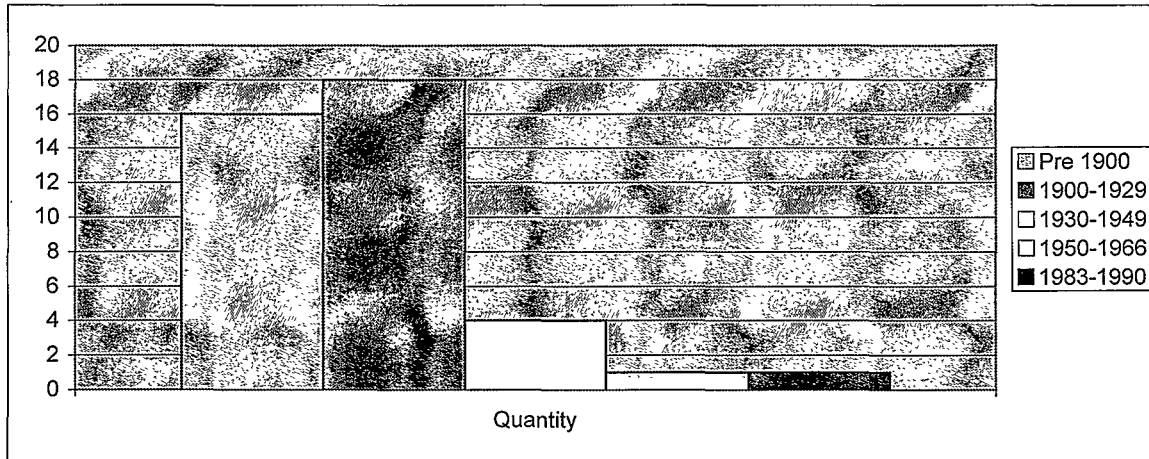
- The response from Lewisham residents themselves was low, with only 38% of those audited coming from the Borough in spite of the use of Lewisham oriented channels (the door drops, the posters, EEAC referrals, and local word of mouth).
  - There was a good range of types of house audited, with half of them being mid terrace houses or semi detached.
  - 85% of those audited lived in pre 1930 houses
  - 30% of take up was by high income groups with annuals <sup>enquiries</sup> over £100,000, but there were responses from a wide range of groups, with 3 households with incomes between £20,000 and £30,000, and 35% of the households earning under £50,000 p.a.
  - just under half the audited houses had children living in the house, and a further four were retired.
  - the average potential CO2 savings as indicated by the audits were highest for the end of terrace and detached houses, but with the exception of the ground floor flat all had potential savings of 1 tonne of CO2 p.a., with the end of terrace houses rising to 3 tpa.
10. The results suggest that marketing solely those in the higher income groups, and/or those living in end of terrace and detached houses would leave out significant areas of demand and potential CO2 savings. In due course we will have results of those who have followed up the audit with significant retrofits. Those 'converting' audits into action can then be correlated with the types of housing and demographics. Initial indications are that readiness to take action is as much determined by the scope for effective action (for example households with old boilers) as by demographic characteristics.

### *Audit take up*

11. Although the response rate to a number of the social marketing channels was low (notably the door drops, the website enquiries, the exhibition stand and the circulation of Ten members), the rate of take up of the audit by those who had enquiries was remarkably high, with 61% of those making enquiries, following up with a request for an audit.
12. The take up rate critically depended on the service package offered and the price and testing out both of these was one of the prime objects of the prototype. The service package was also closely linked to the post audit conversion rate.
13. For first tranche of 10 audits in December, householders were offered a free service and an audit using the RDSAP methodology prepared for the new Energy Performance Certificate. The audits were undertaken by NES who had been one of the three agents to develop this methodology. Three issues

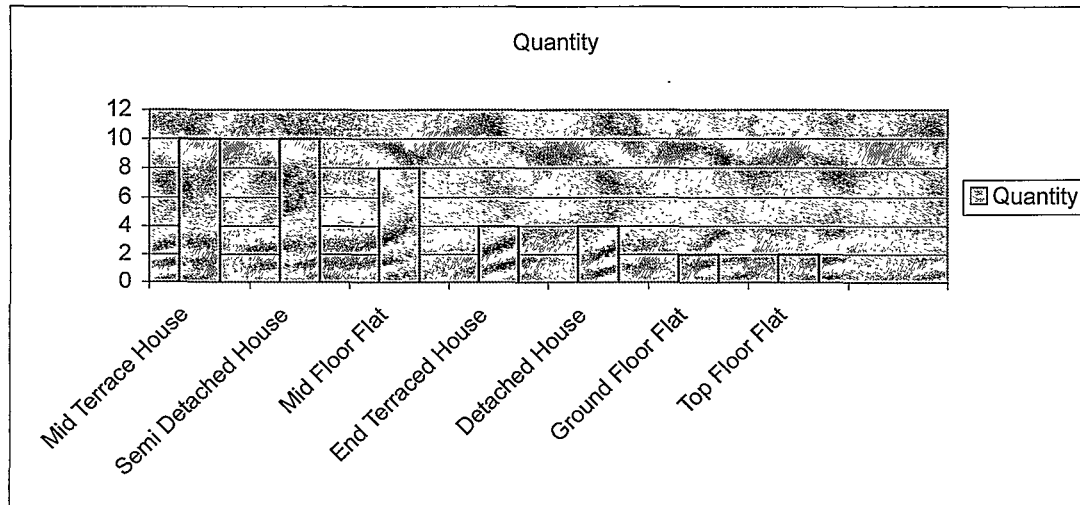
**Table 2 Homes Audited by Year of Construction**

Year of Construction	Quantity
Pre 1900	16
1900-1929	18
1930-1949	4
1950-1966	1
1983-1990	1
<b>Total</b>	<b>40</b>



**Table 3 Homes Audited by Type of Property**

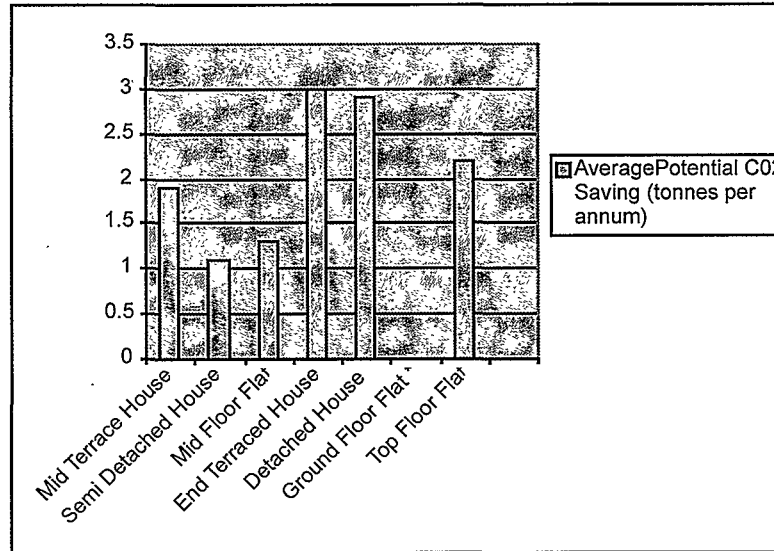
Type of Home	Quantity
Mid Terrace House	10
Semi Detached House	10
Mid Floor Flat	8
End Terraced House	4
Detached House	4
Ground Floor Flat	2
Top Floor Flat	2
<b>Total</b>	<b>40</b>



**Table 4 Potential C02 Saving by Type of Property Audited**

Type of Home	Average Potential C02 Saving (tonnes per annum)
Mid Terrace House	1.9
Semi Detached House	1.1
Mid Floor Flat	1.3
End Terraced House	3
Detached House	2.9
Ground Floor Flat *	0
Top Floor Flat	2.2
<b>Average (all housetypes)</b>	<b>1.79</b>

\* Only one flat - all cost effective measures implemented



**Table 5 Estimated Income per household**

Householder Type	Annual Income							Total
	20k-30k	30k-40k	40k-50k	50k-60k	70k-80k	80k-90k	100k+	
Couple			1	2		1	2	6
Retired Couple		2					1	3
Single Working Person		1	1	2	1		2	7
Single Working Person + Paying Flat Share	2	1	1					4
Single Retired Person	1							1
Family - 1 Working Partner + Pre- School Age Children				2		1	3	6
Family - 1 Working Partner School Age Children			1		1		1	3
Family - 2 Working Partners + Pre-School Aged Children			2					2
Family - 2 Working Partners + School Age Children			1	2	1	1	3	8
<b>Totals</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>12</b>	<b>40</b>

immediately arose in terms of using the RDSAP as a main entry point for the service.

14. First, the Government had taken a decision in July 2006 to make the house conditions survey to be included in the pack voluntary rather than compulsory as originally envisaged. Surveyors, and surveying firms who had geared up to provide energy performance audits along with home conditions surveys as part of a package, found themselves with only the energy audit required. The economics of the energy audit (initially priced at £200 but estimated to fall to £50 and even to zero if bundled with other services such as those of estate agents) meant that home auditing for the pack no longer offered commercial prospects for established house survey professionals. In discussions with the industry, the project found a high level of disillusion amongst surveyors, and auditing firms, with the weakening of the HIP.
15. Secondly the coverage of the RDSAP meant that its significance for many London houses was limited. Of the first tranche of 10 houses, 9 did not have cavity walls, and had some form of extension in the attics, that precluded straightforward loft insulation. As a result the initial reports could only suggest limited actions that could be taken economically, and which made only minimal difference to the house's SAP rating and CO2 reduction. This had the effect of discouraging the householders. An example is given as Appendix 3.
16. Appendix 3 also highlights a third problem. The software (as we found with most energy audit reports provided in the UK) had been developed for the new homes market, where the clients were construction companies and building inspectors rather than householders themselves. The Report's lay out and wording were not designed to encourage householder understanding, and indeed we found that a number of the households had only glanced at the reports after they received them. In short they were not user friendly.
17. At the end of the first tranche, it was clear that there was not yet a package which could be sold as a service. For the second tranche NES prepared a fuller audit report, which integrated cooking appliances and also included draught proofing and an element of micro-generation. We also hired Taylor Woodrow to undertake pressure testing to highlight the points of air leakage. As with the first tranche, this wider service was offered free, to see whether, without charge, there would nevertheless be take up. Was the service of a standard that it could be given away?
18. This time the response was encouraging. The more extensive audit suggested actions which would make a significant difference in older London houses. In addition Ten UK were diligent in following up queries raised during and after the audit, and provided prompt feedback by phone and e mail. By the end of March over 200 information requests had been received, a significant number of them related not just to domestic energy but to other aspects of environmental living (see selection in Appendix 4).



19. For the third tranche, it was decided that all audits should include a blower door test, and we also experimented with thermal imaging as a way of tangibly illustrating heat leakage. A third audit firm BRE was engaged, who offered RDSAP audits, pressure testing and thermal imaging. A charge for the service was also introduced. The price band chosen was £49.99, but we found that many were willing to pay more, so that by the fourth tranche the level was set at £99.99, with one household charged £149.99.
- 20. By the fourth stage, it became clear that there was a marketable package, comprising an RDSAP or NHER audit, plus a pressure test with supportive back up, for which initially at least there was a market at £99.99. ( A selection of householders feedback is given in Appendix 5).**

### *Audit follow-up*

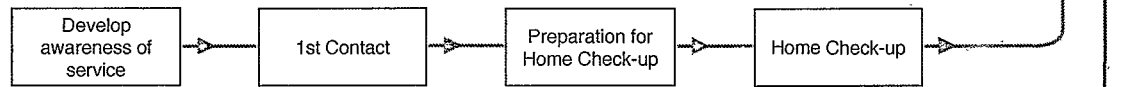
21. The next issue was how many households would take action following the audit. In some cases, immediate small steps were made – such as fitting low energy lightbulbs or a cylinder jacket. But to enable consideration of the larger investments, it was decided to offer a second home visit by one of the Green Homes team to discuss the findings and possible actions with the householders. This was taken up by nearly half the households in the third and fourth tranches.
22. Other experience (both in Canada and in the UK via EST) suggests that a six month delay can be expected between the initial audit and follow up action. In this project within six weeks, 7 households had decided to replace their boilers, and a further four initiated a programme of draught proofing, insulation and in one case double glazing.
23. Appendix 6 gives details of the households audited, and the improvements to which they have committed to date. Experimenting with the home visit, the audit, and the support services around diagnosis, understanding and decision has been the principle focus of this first prototype phase. Because of the timescales involved, the support of the retrofitting process has been relatively limited. The project provided specialist sealant services for one household, and boiler fitting advice to others, but for the most part it is informational and advisory support rather than access to reliable trades people which has been relevant to date.

### **Lessons learnt.**

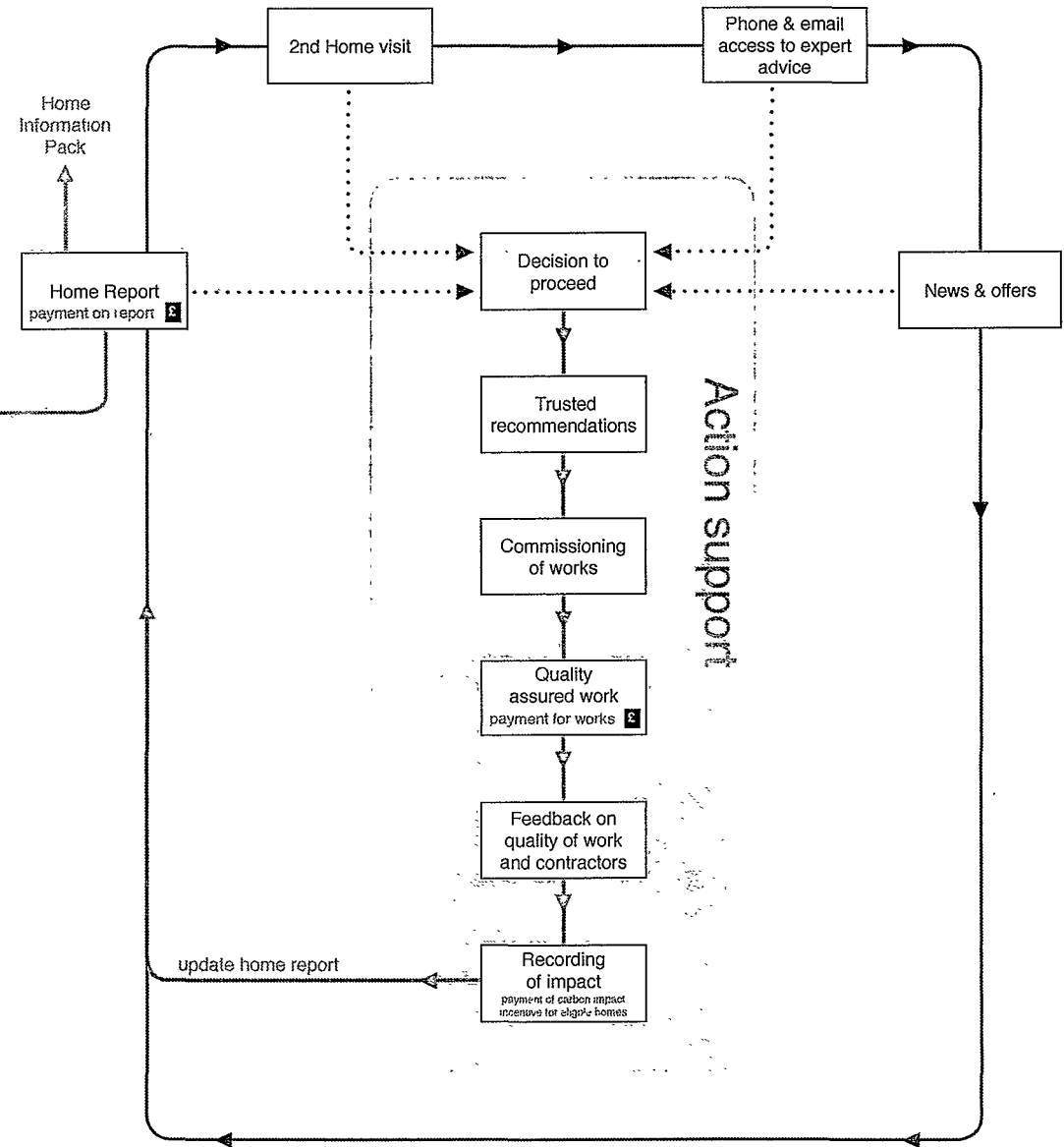
#### *Service phases*

24. The first conclusion to be drawn is that the process of home retrofitting is more drawn out than originally envisaged, and can be broken down into three elements. Figure 2 The Service Diagram provides a refined version of the original chart of the service. There is first a home assessment phase, which is a linear service that runs from social marketing and the development of a public awareness of the service through the first enquiries to the home visit

## Home assessment



## Advisory Support



and audit, the report and the second home visit. This culminates in a decision to go ahead with a retrofit programme (or not as the case may be).

25. The second strand is a phase of action support, where the green homes service provides advice on particular improvements, on where items can be purchased, and on which tradesmen can carry out the work reliably. The service provides information management of the process and records the impact.
26. The third strand is information and advisory support on a continued basis. Whereas traditional retrofitting has conceptualised retrofitting work as a one off programme of capital investment, our conclusion is that households require more continuous support, and that it is often a question of a series of investments – some of which are as much about an environmental lifestyle as a capital investment with an expected rate of return. This is represented by the circular loop in the diagram, which feeds into successive actions.

### *Fees and incentives*

27. One implication of the above is for the structure of fees and incentives. It is always difficult to charge a fee before the extent of the need for the service is known, as is the case in domestic energy management. For this reason able to pay retrofit programmes have often subsidised the audit, or even offered it free as an inducement to encourage householders to be aware of the need and value of retrofitting. In the Canadian Energuide programme, there is also an incentive offered based on the carbon savings of retrofitting work completed.
28. The case for public subsidy is two fold, first to compensate for imperfect information on the demand side, and second to subsidise the householder's cost to promote investment on the supply side. In both cases, from a programme point of view, this may mean subsidising households who would have undertaken retrofits without the subsidy. But in the case of the audit, the argument is that with improved knowledge a significant number of households will invest who otherwise would not have done, given the economic and increased comfort benefits of retrofits. And second, by reducing the cost of investment (shifting down the retrofit supply curve) the subsidy extends take up to those who would otherwise not have invested. In economic terms, the impact of such a subsidy will depend on the elasticity of demand for retrofits.
29. In the current project, our conclusion is that the key issue was not the cost of the support service, including the audit, but the package on offer and its effective communication. The offer of a free audit via the door drop post cards did not result in a significant response rate – though we could expect some price effect once the nature of the service is established and understood.
30. In extending the service London wide, we conclude that priority should be given to refining the service offering and social marketing, and only then considering the impact of price offers. Indeed, one of the lessons of the concierge service run by TenUK is that there is likely to be greater take up from those paying for the service. Paying for the service increases its value. It

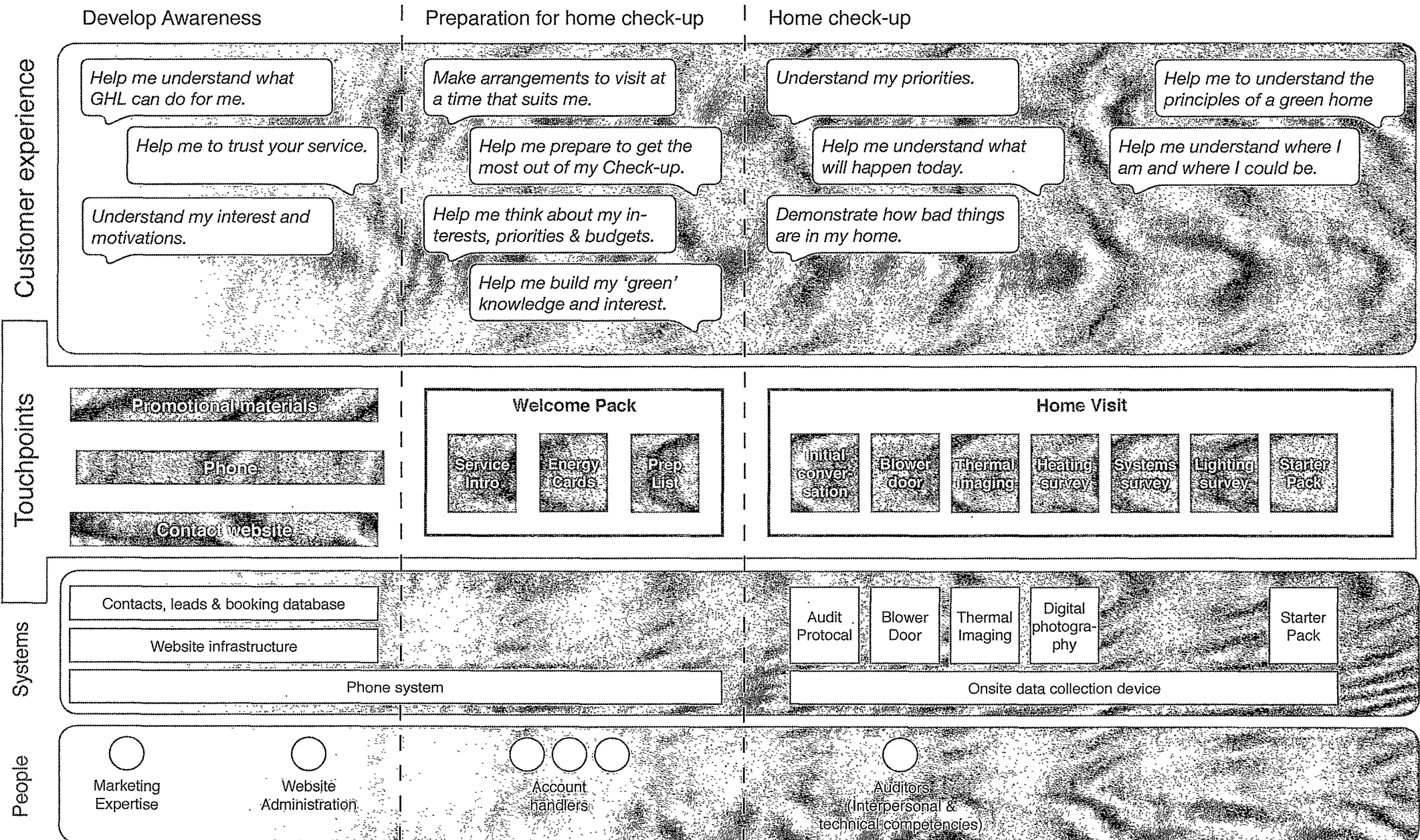
would be worthwhile testing this out in relation to the post audit take up rate in the Gr en Homes service.

31. We also recommend trialling a dual fee structure, with an upfront fee for the initial consultation, assessment and service support, and a modest monthly payment for continuous support. This follows from the point about the extended character of retrofitting and lifestyle changes, and the potential to offer promotions and reductions over time.
32. As far as Energuide type carbon saving incentives are concerned, the limited timescale of the programme precluded a full testing of the proposition. The primary uptakes from the audit related to boilers, all of which would have had to be replaced shortly in any case. The incentive was significant for two of the lower income households considering draught reduction works. The next stage of the prototype – if conducted over a longer timescale – would be in a position to test out the value of different levels of incentive for work done and carbon saved on the uptake of audit recommendations.

### *Design*

33. It is one of the propositions of the prototype that it is design rather than price which should be the starting point for a service aimed at behaviour change. This covers not only the service offering, but how it is communicated, delivered, received and recognised. It calls on the skills of service design and delivery, of interaction design and of graphic design.
34. Figure 3 The Service Blueprint is a more detailed version of the basic service loop, and brings out four layers in service design. The first at the top is to start with the householder and what he or she requires at each stage of the service. To understand this, each audit was undertaken both by a technician and a service specialist, the latter engaging with the householder with a view to understanding the specific concerns and requirements of householders at this initial stage. This led to changes in pre-audit communication, and post audit follow up, as well as the conduct of the home visit itself.
35. The second layer identifies the touchpoints between the service and the householder from the initial contact to the final assessment. A major focus of the prototype was on the design of a number of these touchpoints. The project engaged designers to develop the following:
  - Postcards for a door drop to Lewisham homes
  - Posters for space advertising in Lewisham
  - A web site
  - A pack of option cards for use during the home visit
  - Two versions of the home audit report
  - Information sheets to be sent out by e mail and in hard copy with the reports
  - A newsletter

Examples of each are available with this report.



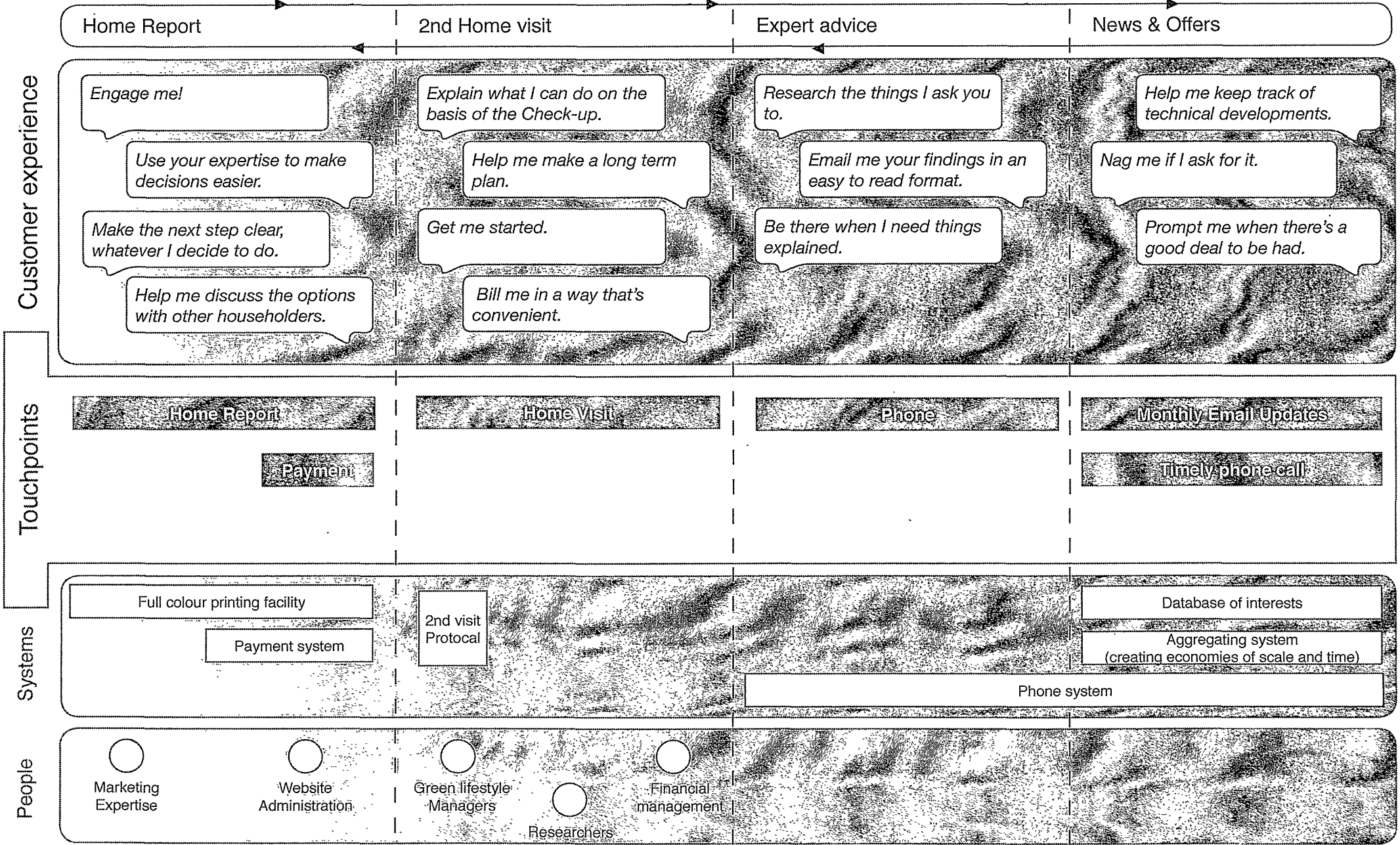
## Service blueprint 2: Advisory support

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→ Decision to proceed with works

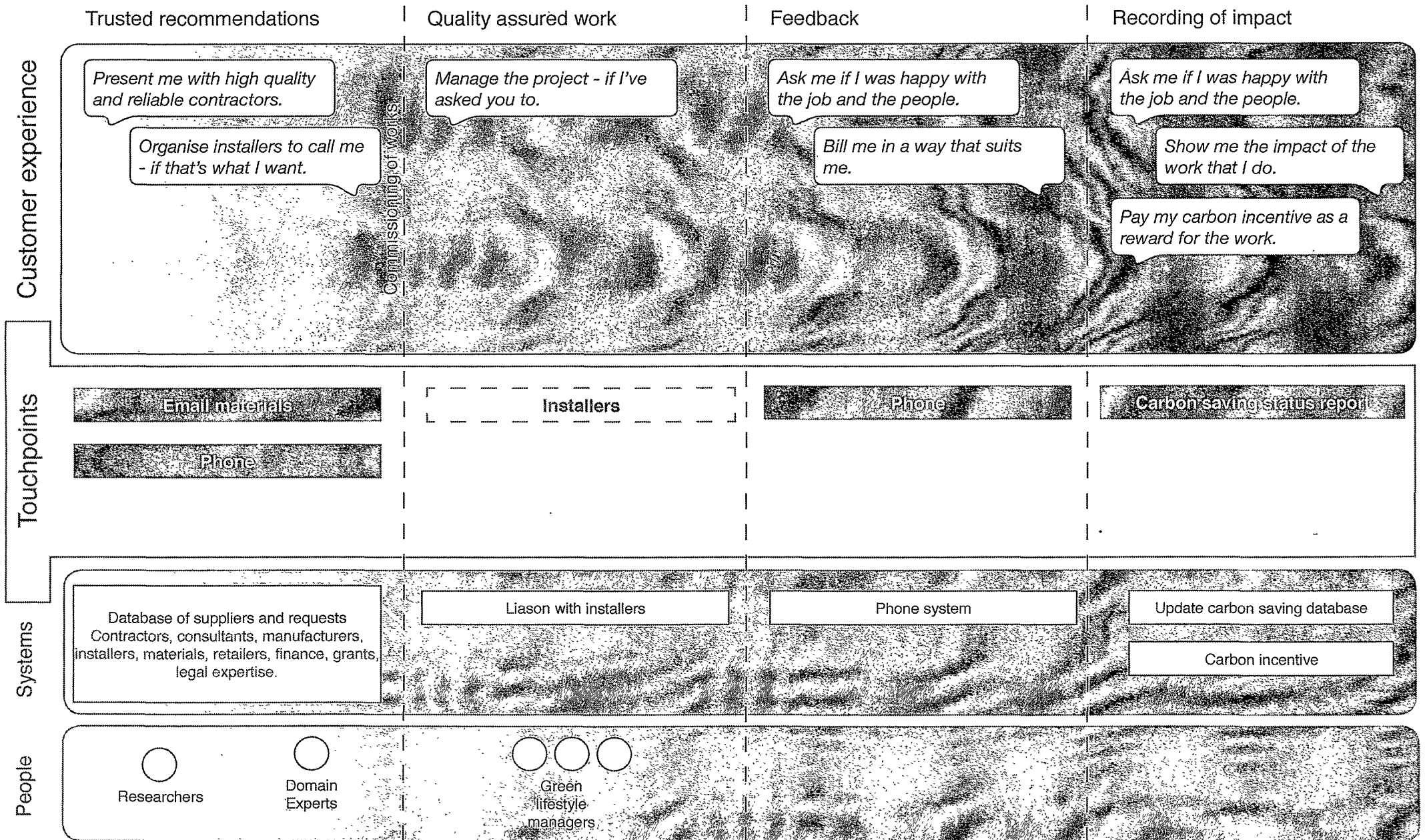
→ Decision to proceed with works

→ Decision to proceed with works (go to page 3)



see Page 3: Action Support





Commissioning of works

See Page 2: Advisory Support

36. Of these the most important is the audit report. There is clearly a need to work with the current audit companies, and the government, to re-design the RDSAP reports in order to encourage household engagement and behaviour change. We have discussed this with two of the audit providers and they have expressed their willingness to engage in a redesign exercise of this kind.
37. The third layer represents the systems necessary to deliver the service. The information management systems have been developed, and these include the scheduling and logistics of the audits, the follow ups, the development of materials to respond to frequently asked questions, the tracking of works, and service feedback. This layer also includes the undertaking of the audits and their reporting, both of which have been sub-contracted to professional audit firms, and both of which we see as being subject to labour saving and service enhancing improvement.
38. Finally the fourth layer, the people and skills required to make the systems work. The focus of the prototype has been on the auditors and home visitors. The two come from different service traditions, the first technical and the second consumer service. In the business plan it was also envisaged that there would be a need for a third skill, that of environmental specialist, but early on it was decided to provide environmental training for the consumer service staff with access to environmental specialists where required. As observed, the home visits were conducted by two specialists, an auditor and one of the green homes service team.
39. For the full service, these two need to be combined. We are clear that a new cross disciplinary home visitor is required, who is qualified to undertake home audits, who is trained in consumer service delivery, and in environmental advice. Such a person could be an existing auditor, many of whom are environmentally knowledgeable, and who could receive additional consumer service training if required. He or she could work in consumer services and be trained up as an energy auditor and environmental advisor. Or they could come from the environmental field.
40. This conclusion echoes that of the Canadian green communities programme. In that case, a new profession of green home advisers were trained from scratch, with the skills identified above. We recommend that a training programme for such a multi skilled professional is prepared and implemented in preparation for the roll out of the service to London as a whole.

### *The brand*

41. A further design issue is the nature of the Green Homes brand. Because of the definition of the GLA commission, we have confined the Green Homes service to a focus on energy. But we found that this was often too narrow and there was commonly an interest in other environmental lifestyle issues: recycling and composting, transport, sustainable furniture and furnishings, travel and even finance. This is reflected in the content of the newsletter.



42. But there is also an argument for positioning the Green Homes brand ~~less~~ as a lifestyle advice and support service, as a provider of access to the best technical and scientific advice at first on energy, and then in time diversifying to other issues.
43. There may not be a conflict between the two. But one of the positive features of designing the touchpoints between the householder and the service is that it raises these questions of service identity that will necessarily inform the further interface design work.

### *The Business Model*

44. The service as developed during the prototype is not financially sustainable. At an overall level, the service has cost over £3,000 per household, and estimates for an extension phase promises to reduce it but by no more than a third.
45. Some of the prototype expenditures are system investments, such as the development of software for the audit reports, the design of the website, and the development of information management systems. But even leaving these aside the per household cost would remain at a little over £1,300
46. The key components of these costs are the following:

	£ per household
Marketing	150
Audit	170
Audit reports	150
Householder support	350
Carbon Impact incentive	250
Management and admin	250
Total	1,320

47. How if at all can costs be reduced and the impact increased? Part of the answer is in the scaling of the service. Marketing spend per household for a London wide service can be greatly cut, both by using existing channels of communication (the newspapers of the GLA and the Boroughs for example, the EEACs, and potentially the medium of large employers or mass service providers.).
48. Auditing, the audit reports, and management and administration can also be potentially be halved, and there are some economies for providing the support service at scale. The challenge would be to halve the combined costs With an average fee of £100 per household, this would bring the net cost of the service down to £560. There is also the potential for raising revenue from commissions from the retrofit service providers.

49. A service cost of this order would bring the London programme in line with the Canadian experience. The Energuide model provides 50% of the cost of the audit, which is £150, plus an incentive of £250-£500 per household. For a London wide scheme aiming for 100,000 homes audited over 4 years, a public subsidy of £500 per household would require a budget of £12.5 million p.a.
50. But this is only the financial side of the service. From a policy perspective, the issue is the service effects in terms of CO2 savings. How far can an audit centred service of this kind improve the implementation of CO2 reduction measures relative to lower cost advisory services such as those provided by the EEACs and EST?
51. The critical variables in the service from this perspective can be summarised in the following equation:

$$\sum \text{CO}_2 = AxyzQ$$

Where  $\sum \text{CO}_2$  is the amount of CO2 saved, A is the total number of households aware of the service and its potential impacts, x is the coefficient of those households contacting the service (the contact rate), y is the coefficient of those requesting an audit (the take up rate), z is the coefficient of those households who have had an audit undertaking works (the conversion rate), and Q is the quantity of works undertaken per household.

52. Commercial schemes have found difficulties with each of the above variables. EAGA's Canadian scheme found it difficult to achieve take up of their audit and retrofit support service. One US scheme found that a substantial proportion of those audited did not complete the audit, and of those that did there was a low rate of conversion to action, and insufficient work done for commissions to cover the costs of the service. Self-auditing, which lowers the costs of the audit, discourages high audit take up (because of the time and trouble involved) and there is evidence that the results are far from accurate.
53. The Canadian Energuide scheme has been innovative in that they have used community groups and partnerships to raise A, and the number of households completing an audit. But they have not been able to facilitate the conversion stage other than by providing information on available tradespeople, and incentivising works completed. Initially their conversion rate was in the region of 10% but they then compensated for their difficulties in following through on the retrofitting works themselves by the substantial incentive for the CO2 savings of work completed. This raised the conversion rate to 25%, and the total works to some £1250-£2500 per household.
54. The Green Homes service seeks to improve the service outcome in the following ways:
- Investment in service design and branding to increase the awareness of the service, and the contact, take up and conversion rates.

- The provision of support services running through from the initial contact to the response to queries, to the post audit decision, the identification of suppliers, and the backstopping of works. This is labour intensive as reflected in the householder support costs, but it is aimed at increasing the conversion rate.
- The provision of continuing support in order to increase Q, the quantity of work undertaken per household, which may be spread over some years, depending on the timing of works to the house (re-roofing, conversions, or boiler replacements for example).

By targeting the rate of fall out, the proposition is that financial incentives can be reduced and the savings invested in design and service support.

55. Further savings can be achieved by concentrating audits on those households that are more likely to undertake retrofits. From experience to date, one of the most promising segments are those who have recently moved house, and who from June 2007 will have received the RDSAP audit in the home sellers pack. Not only will audit costs be cut, but we have found that those undertake post purchase renovations are particularly open to retrofitting works. This is one of the propositions to be tested during any extension phase.
56. The proposition to emerge from the prototype phase is that focussing resources on the design and continuous nature of the service rather than on financial incentives to encourage households to undertake post audit retrofits without sustained levels of support, may lead to lower costs per tonne of CO<sub>2</sub> saved than similar energy auditing programmes. At this stage it can be no more of a proposition that should be more fully tested in prototype before going London wide.

### **Conclusions and next steps.**

57. The GLA and LDA are in the process of preparing a tender for a London wide extension of the service. These are likely to take between 5 and 6 months after the completion of the initial prototype. From the experience of the prototype, it is advised that further work be done on a number of elements on which it will be important to make progress before the start of the London wide programme.
58. We recommend a bridging phase that scales up the prototype by a further 200 homes over 6 months – that we regard as feasible on the basis of the audit and service skills currently available, and the time taken to undertake the home assessment phase.
59. The following issues need to be explored and/or developed further either as modules or as part of an integrated package:
  - ***The Audit Reports.*** There needs to be investment and inter-institutional discussions on the nature of the audits and report. Further to the two

exempla attached to this report, it will be necessary to work with one or more of the audit organisations to revise the software behind a redesigned report, and the way in which it can be produced more cheaply and in a shorter time.

- ***The availability of auditors.*** The experience of the home visit and the need to combine environmental specialism, with the service skills of the concierge service and the technical skills of auditors, requires a skills and training strategy to put in place prior to the implementation of the tender.
- ***Environmental information and advice.*** A further research programme is required on the principal issues that come up during the retrofit diagnosis.
- ***Energy monitoring and feedback.*** The project experimented with smart meters, but there is as yet no product which meets the need for continuous monitoring of home energy consumption. This applies also to water meters, to other forms of energy trackers and the design of energy bills. The Government has recently announced a programme for the supply of smart meters, and we recommend that an approach is made to further test existing smart meters as part of the bridging phase, and to trial new prototype meters that are currently under development.
- ***The economics of the service.*** It is clear that economies can be made in how the audit is conducted, who does which bit of the work, how the home visits are programmed. The goal, again working with the audit companies, is how to bring the cost level down to that of the parallel Canadian service. Similar strategies need to be explored with respect to marketing, raising the rate of take up and conversion, and exploring the potential of commissions from suppliers
- ***Carbon calculator.*** The project explored a number of carbon calculators, which will be advanced by the results of the current Defra research. Some households we audited were attracted by the idea of a calculator but considerable design work is required if they are to be used as an element of the London-wide service..

## Appendix 1

### Concept Notes

## Concept Note 1

### Householder Recruitment

1. **Rationale.** The purpose of the recruitment element of green homes service is to:

- test out different channels of recruitment of householders to (i) purchase a home audit (ii) to engage the green homes support service as a follow up to the audit.
- Identify the channels to ensure a social and ethnic mix of the audited households

The recruitment will focus on Lewisham and be used to inform the social marketing strategy for the 5,000 homes roll out.

2. **Recruitment channels.** The following will be tested:

- Lewisham Borough Council: local networks/borough newspaper/Mayor/PR
- EAC inquiries
- Local radio
- Building Regulation applications
- Local building firms
- Local Environmental networks
- Lewisham community groups and networks
- National networks (Greenpeace, FoE, WWF, RSPB)
- Local property agents (estate agents/lawyers)
- Property managers (Owen)
- Property companies (Grosvenor)
- Banks and mortgage companies (national, via local branches) RBS, Coutts, HSBC
- DIY stores (B&Q, Homebase)
- Ten UK clients in Lewisham/ Citibank with its Lewisham offices
- Internet and websites, including project website, Sustain and other environmental sites and blogs/partners including RED web page

3. **Issues.** Particular need to assess the impact of:

- community networking (see Canadian experience)
- the web and viral social marketing
- central PR (Lewisham Council, GLA)

4. **Materials.** Prepare brochure/ media briefing/ Green Homes website/ institutional briefing.

5. **Outputs.** 40 homes recruited for auditing/ analysis of effectiveness of different recruitment channels.

6. **Delivery.** Recruitment co-coordinator/PR support/ feedback reporting by recruitment channel.

## Concept Note 2

### Home Auditing.

1. **Rationale.** The purpose of the home audit as part of the home environmental support service is four fold:
  - *Houseowner motivation.* To diagnose the energy efficiency of a house, and provide costed recommendations for improvement
  - *HIP as entry point.* To use the requirement for an energy audit, as a means of green home service contact with a class of householders (potential sellers, buyers, and renters).
  - *Sustainable lifestyle.* To provide a bridge for householder engagement with issues of sustainable living (including transport, food, water, waste)
  - *Metrics.* To make a home's energy performance tangible, and provide a base line metrics for the householder, for public/private funders, and for green mortgage loans.
  
2. **Issues to test** in the prototype.
  - The readiness of take up of a home energy audit as part of the HIP
  - Number of contacts to yield 40 households willing to pay for an audit
  - Householder response to the RDSAP audit and presentation of results
  - Take up of offer of pressure test, and value of pressure test for motivating householders and improving take up rate
  - Significance of blow door results for issue of air leakage as issue in energy saving
  - Potential (and cost) of extending audit to water, waste, travel, noise.
  - Effective means of connecting the audit with later stages of green homes service (link of surveyors and environmental advisers), and requirements for improving rate of post audit take up
  - Householder response to microgeneration opportunities
  - Types of skills and training for delivery of RDSAP plus
  - Price elasticity of demand for audit, and audit package (and marketing) to maximise audit take up
  - Means of reducing costs of audit delivery
  - Identification of other sources of funding for RDSAP Plus
  - Impact on householders of incentive linked to household performance after 2<sup>nd</sup> audit
  
3. **Outputs.** 40 homes audited, 10-20 2<sup>nd</sup> audit
  
4. **Delivery issues.** Identification of auditors/ briefing/scheduling/booking/ marketing of audit/communication of results/accompaniment of auditors by designers and/or environmental advisers.

## Concept Note 3

### Service Modules

1. **Rationale.** A primary goal of the project is to test out a range of service options, and the willingness of householders to pay for them as the basis for designing offerings for the 5,000 home roll out.
2. **The trial modules.** The GHS will initially offer three levels of service, a core energy audit, a premium energy audit, and a full green audit, at a price starting at £199. The offerings and the prices may be adjusted according to householder reaction.
3. **Issues to test in the prototype.**
  - the elements of the core package and their relative attractiveness
  - householder response to the RDSAP audit
  - link of the audit and works undertaken to the HIP
  - the willingness to pay for the blow door test
  - the design of the elements
  - the take up of the gold and platinum packages, and key elements to increase take up
  - the value of unbundling, with stand alone packages (e.g. for micro generation)
  - the free add ons that can be offered for each package (e.g. water monitoring, noise assessment, free or subsidised offers from local council)
  - the perceived value of face to face support from an environmental adviser
  - the presentation of the options, including hard and web copy design
  - the level of prices and time and means of payment (2 payments: one for audit, one for follow up service)
4. **Outputs.**
  - The development of a range of service offerings
  - A report back on the householder response during the prototype.



## Concept Note 4

### Incentives & Low Cost Finance

1. **Rationale.** The significance of design, low cost finance and grants as incentives to retrofit are an integral part of the service offering. The prototype will test a range of such incentives with a view to refining proposals for the 5,000 roll out.
2. **The incentives.** The design concept phase of the project underlined the importance of design as the primary focus in the service offering. This includes service design, and the design of the products, touchpoints, and other elements of the service. Financial incentives should be seen as supplements rather than substitutes for strong service design. Design principles should also be applied to the financial incentives themselves (user focussed, customised, innovative, emergent, aspirational, low transaction costs,) including the offer of low cost finance.
3. Some of the financial incentives to be explored with householders include cheap or free offers, the carbon incentive payment, on bill repayments, mortgage links, and council tax rebates.
4. **Test issues** in the prototype.
  - the sensitivity of take up to the carbon incentive payment
  - the rate of service take up to the level of carbon incentive
  - the trade off between personal service support (through an environmental adviser) to increased financial incentives
  - the value of access to low cost products and services through personal environmental advice, relative to the cost of environmental advisers
  - the significance of the financial returns of environmental investment to non financial features of sustainable domestic investment and lifestyle issues
  - the feasibility of a green add-on to existing mortgages, and of green element in new mortgages
  - the impact of a link between the availability of a green mortgage and the results of a second audit to demonstrate the impact of energy saving investment
5. **Outputs.**
  - Development of practical incentive propositions, including offers of cheap finance
  - Householder feedback on alternative incentive offers
  - Report on the impact of the carbon impact incentive, and potential of other forms of incentive.

## Concept Note 5

### Green Mortgages and Home Improvement Finance

1. **Rationale.** The purpose of the green mortgage/financial package as part of the home environmental support service is to encourage investment in home improvements in three ways:
  - *Readily available finance*, as an addition to an existing mortgage or to be included in a new mortgage
  - *Ease of repayment*. Through the bundling of the capital servicing and repayment cost into the overall mortgage payments
  - *Improve saleability of the house*. The fact of receiving a favourable mortgage, reinforces the impact of the EPC on the added value from an energy efficient house.
2. **Issues to test in the prototype.**
  - The form of financial package which would be attractive to householders and the mortgage industry
  - The naming of offer (green, home improvement, draught reduction, home insulation) and the attraction of specific names to different household segments
  - The potential for providing initial and post works energy auditing as an adjunct to a green homes mortgage, that requires proof of work completed.
  - The possibility of linking green finance to longer term mortgages, to reduce customer churn for the lenders, and encourage a long term view of the improvements
  - The extent to which mortgage brokers could be incentivised to promote a green mortgage product
  - The potential for targetting those seeking to re-mortgage (c. 120,000+ households p.a. in London) with the Green Homes service
  - The possibility of involving other sectors in financial provision for green home improvements (loans through the utilities for example, or incentives on house insurance).
  - The scope for the insurance industry to extend their package of restoration works to green makeovers
3. **Outputs.** 2 alternative financial packages to be integrated into the green home service offer
4. **Delivery issues.** Identifying suitable partners in mortgage industry, insurance and utilities

## Concept Note 6

### Green Web Portal

1. **Rationale.** A Green Homes website would have four purposes:
  - A communication link to the green homes service, including a call back feature
  - A platform for people to register their interest, say what they would like, ask questions, register for the service. Include space for free text.
  - A high touch back up to the service
  - An open source site for others to contribute comments and ideas on products and ideas for sustainable living.
  
2. **Issues** to explore in the prototype.
  - Value of the site for each of the four purposes
  - The adequacy of current green web sites as potential links to the portal
  - The degree of response to the open source scope of the site
  - The degree of hosting necessary for effective interaction on the site
  - The cost of servicing the site
  - The potential use of the site for on line purchase of green products
  - Possible use of the site as generator of revenue for service
  - Value of particular content on site (e.g. Sim City type game for energy efficiency as developed by RED for future currents)
  - The extent to which a local sub domain – a community front end – would provide a local focus for environmental community groups, as well as providing a resource for the provision of local information and advice
  
3. **Outputs.**
  - A service website, available for launch of service on December 4th, with add ons and updates during the 16 weeks of the prototype.
  - Report on effectiveness of website, and outline of possible paths for the development of the site in preparation for the 5,000 home roll out.

## Concept Note 7

### Local Authorities

1. **Rationale.** Through a partnership with the London Borough of Lewisham, the prototype wants to explore the way in which a green homes service can support the policies of a local authority, and the EAC which is administered by the Borough, and at the same draw on the resources of that authority and its EAC.
2. **Issues to test** in the prototype.

#### Support for the Borough

- The inclusion in the home visits of issues particular to Lewisham, in addition to those already identified.
- The provision of data on auditing, take up and CO2 impact of an environmental support service
- The trialling of metrics for personal carbon accounting
- Training of local residents in supply of green homes advice

#### Support from the Borough

- The Borough's role in identifying potential households through:
    - Building control applications
    - EAC referrals
    - The Council newspaper, website and other resident communications
    - The Mayor
    - The Council's PR department
    - Local partnerships of which the Council is a member
    - Its employees
    - Postcode knowledge to ensure diversity of sample
  - The Borough's knowledge of local trades people who could supply services to households in the post audit phase, and of local sources of green products for the web site.
  - The availability of grant or loan finance for some of the works to be undertaken by the green home programme.
  - The development of new incentive schemes (e.g. Council tax rebates)
  - The Borough's knowledge of local environmental groups who could play a role in support of the Green Homes Programme.
  - Joint work in identifying factors in determining the post audit take up rate
3. **Outputs.** An identification of the value of a partnership, the successes and difficulties, as a basis for the involvement of other London boroughs in the scaling up stage.

1. The Green Homes contract was finalised on October 16<sup>th</sup> and the preparation phase completed in the scheduled six weeks by early December. Details of each element of the preparation and the proposed outputs are given in the appendix to this report.
2. The key question in this phase became the nature of the package offered, the price and the target households. To get a better handle on this we decided to 'prototype the prototype' by conducting 10 trial audits, that would allow testing of the audit itself and assess the energy and wider environmental concerns of householders, and the capacity of the service to address them.
3. There were six main conclusions from these trials:
  - most of the houses visited had single cavity walls, and the recommendations generated by the RDSAP audit had only limited impact on the SAP ratings.
  - the households were aware of the issues of climate change, and interested in actions that could contribute to carbon reduction, not only in their domestic energy use, but in lifestyle more generally. There was considerable interest from a number of those visited in the idea of personal carbon accounting
  - a basic service would have to provide more than the audit, certainly for those households not considering selling their homes and thus requiring an Energy Performance Certificate
  - the basic service could not be priced at the original target level of £199, even for those proposing to sell their homes, because discussions with the conveyancing industry suggested that the original estimated cost of £200 for an RDSAP audit would be likely to come down to the region of £50, and – now that the HIP survey was no longer to be compulsory - could well be provided free by estate agents.
  - service design and the quality of service delivery were crucial where the nature of the service and the motivations of householders were so varied and widely defined. This applied to all the 'touchpoints' of the service, from the design of printed material, and the website, to the personal interactions during the initial visit and the follow up.
  - the initial concept of the service built round the energy audit and the implementations of its recommendations should therefore be extended, with the role of auditor and environmental adviser being merged, in order to extend the scope of the home visit, and the range of recommendations and types of back up.
4. The overall goal of the project remains that of exploring whether there is a business model that can deliver substantial domestic carbon savings for able to

pay households, and if not what level of public support would be necessary to make the service sustainable. The view of the project team following the trial audits is that there is very considerable potential, and the challenge is to refine the service offerings, and tailor them to particular segments of the able-to-pay sector.

5. For the operational phase the plan is to target the following:
  - Upper income
  - Lower income
  - Environmentally aware
  - Households with children under 16
  - Households over retirement age
  
6. In conjunction with the Borough of Lewisham, four wards have been identified with contrasting housing types and income levels, and door drops undertaken in four streets offering the service. This approach will be supplemented by posters, information on the Borough of Lewisham website, contacts through local community groups, visits to neighbourhood schools, and contacts through membership organisations such as TenUK.
  
7. We intend to test out two overlapping approaches. The first is to offer a set of modules, each with a price tag, which allows the householder to pick and mix according to their concerns and budgets.
  
8. The second will be to group these modules into discrete packages, for the sake of simplicity and marketing. As outlined in the Business Plan, the offer will be of three levels of service, but redefined and at a lower price, as follows:
  - i. Your House. This focuses on the fabric of the house, and the basic issues to resolve. It provides the householder with best practice recommendations for simple energy saving, plus support in the follow up. Price £49.99
  - ii. Your Home. This focuses on life in and around the home, and includes appliances, micro generation, elements of transport, waste and food, a regular newsletter and phone in service. Price £99.99, plus £60 p.a. subscription
  - iii. Your world. The wider picture on sustainable lifestyles, including a carbon footprint estimate, and covering not only domestic energy, water and waste, but travel, finance, investments, and carbon trading. Price £199 plus £600 p.a. subscription.
  
9. It is on this basis that the project is proceeding to the operational phase. One thousand cards have been hand delivered in the four designated wards, and a further thousand will be delivered early in the New Year. The web site is now operational and with minimal publicity has already received 100 hits. The first responses are being received, and a programme of home visits with an audit has been arranged for January and early February.

December 19<sup>th</sup> 2006

#### Appendix 4 Householder queries received and responded to

U\_GH\_draught proof windows and doors and area behind kitchen cabinets  
HANNAH\_GH\_Matthew is thinking about a new door. Can we advise him on this (to include double glazed panels)  
HANNAH\_GH\_Handyman to repair jammed bathroom window that is creating draughts  
Lori\_GH\_Low energy lighting  
HANNAH\_GH\_Can we shed some light on energy saving bulbs? (currently have downlighters\_tungsten, normal light bulbs for central and plugged i  
Hannah\_GH\_Energy saving alternatives to spotlights  
Hannah\_GH\_Can we send Miranda some information on low energy lighting  
Lori\_GH\_Source halogen light protective surrounds.  
HANNAH\_GH\_Source halogen light protective surrounds.  
HANNAH\_GH\_Can we shed some light on energy saving bulbs?  
HANNAH\_GH\_Can we shed some light on energy saving bulbs? (specifically downlighters)  
HANNAH\_GH\_Please send Mark details on solar garden kits  
HANNAH\_GH\_Can we shed some light on energy saving bulbs?  
HANNAH\_GH\_Joachim has no low energy bulbs currently. Please can we send some details on this  
HANNAH\_GH\_Low energy lighting. Sam and lain would like information on candle bulbs for a chandelier, spotlight and downlighter bulbs  
Lori\_GH\_Low energy lighting information  
Hannah\_GH\_Investigate installation and costs of TRVs  
HANNAH\_GH\_Information on curtain lining to improve draught insulation  
HANNAH\_GH\_Can we look into Ethiscores for washing powder & washing liquids?  
HANNAH\_GH\_Information on curtain lining to improve draught insulation and possible samples  
HANNAH\_GH\_Please can we send details on hot water, cylinder thermostats  
HANNAH\_GH\_Suggestions for A rated tumble dryers  
U\_GH\_Find our about solar pumps for a garden pond  
U\_GH\_Can we take a look at models of hob kettles to be used as alternatives to electric kettles?  
U\_GH\_Research thermal blinds for conservatory  
HANNAH\_GH\_Can we send Toni some details on organic and recycled shopping bags?  
HANNAH\_GH\_Can we send Sarah details on Ethical Consumer magazine and websites to help her source new appliances  
HANNAH\_GH\_Please can we send Mark details on Ethiscore  
Lori\_GH\_Dan is decorating and would like to know what green paints, finishes, stains and varnish is considered 'green'?  
U\_GH\_Please send details for cost effective solutions for draughty floorboards~20/02/2007 16:12:43  
Lori\_GH\_Information on Quattroseal  
Jackie\_GH\_Can we offer tips and advice on draught proofing a front door and understairs area  
Lori\_GH\_double glazed windows and draught proofing solutions  
Lori\_GH\_Thermostat and TRV information  
Lori\_GH\_Can we send Dan more info on TRVs?  
Hannah\_GH\_Investigate installation and costs of TRVs  
Lori\_GH\_Please organise a test and quote for cavity wall insulation  
Lori\_GH\_Home insulation information  
Lori\_GH\_Internal wall insulation and plasterboards  
Lori\_GH\_Internal Wall insulation  
HANNAH\_GH\_Roof insulation options  
Lori\_GH\_Cut price loft insulation  
Jackie\_GH\_Information on Loft insulation  
Hannah\_GH\_Loft Insulation Advice  
Lori\_GH\_Information on Loft insulation  
Lori\_GH\_Advice on Gas heating as a focal point for the sitting room  
U\_GH\_Research carpet underlay solutions  
Jackie\_GH\_Research carpet underlay solutions  
Lori\_GH\_What energy saving floor covering options can we suggest?  
Lori\_GH\_Can we suggest environmentally friendly kitchen floor tile solutions?  
Lori\_GH\_New boiler information and product comparison  
Lori\_GH\_Information on costs and installations of a Japanese baths \_ are these energy efficient?  
Lori\_GH\_Information on wormeries  
Lori\_GH\_Please send Alex details on Organic seed suppliers  
Lori\_GH\_New boiler post RDSAP results  
Lori\_GH\_Information on sedum roofs  
Lori\_GH\_Community Composting in South East London  
Lori\_GH\_Infor on reflective panels for behind radiators  
Lori\_GH\_Getting Matthew a second opinion for new boiler, PV's and overall plumbing from AGP (Jane and Rupert)  
Lori\_GH\_Would geo thermal or solar solutions work for Dan?  
Lori\_GH\_Can we investigate the potential for underfloor heating in the kitchen and bathrooms?  
Hannah\_GH\_Can we suggest energy efficient and aesthetically pleasing window solutions?  
HANNAH\_GH\_Send Andrew some info on double glazing for sash windows  
Lori\_GH\_Information on windows  
HANNAH\_GH\_Advise Sarah on replacing her Crittall window and a greener alternative  
U\_GH\_Please investigate double glazed stain glass for a front door.  
HANNAH\_GH\_Please can we suggestion green architects in the Lewisham area  
Lori\_GH\_Can we recommend a green architect?  
HANNAH\_GH\_Information on Loft insulation  
Lori\_GH\_re. Kitchen surfaces, how environmentally friendly are Terazzo and Corian? Are there friendlier alternatives?  
Lori\_GH\_Advice on energy efficient boilers~07/02/2007 12:19:24  
Hannah\_GH\_Can we send Andrew more info on TRVs?  
Lori\_GH\_Information on designer radiator solutions for Andrew's living room  
Hannah\_GH\_Information on TRVs  
HANNAH\_GH\_Investigate installation and costs of TRVs  
HANNAH\_GH\_Research installation and costs for a condensing boiler  
Lori\_GH\_Post audit follow up on boiler advice

Lori\_GH\_Upgrading your boiler  
Lori\_GH\_Guidance on bathroom work to include dual flush loo info  
U\_GH\_RDSAP Report issue and distribution  
HANNAH\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
Lori\_GH\_RDSAP issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_Guidance on costs and installation of solar panels (ideal timing as Matthew is thinking about a new roof)  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
Hannah\_GH\_RDSAP Report issue and distribution  
Hannah\_GH\_RDSAP Report issue and distribution  
Hannah\_GH\_RDSAP Report issue and distribution  
Hannah\_GH\_RDSAP Report issue and distribution  
Lori\_GH\_Please send details of aerated shower units  
Lori\_GH\_Guidance on dual flush loos  
Lori\_GH\_Please send details of aerated shower units  
Lori\_GH\_Information on aerated shower unit for bathroom and aerated fixtures for bathroom AND kitchen taps  
Lori\_GH\_Please send details of aerated shower heads  
Lori\_GH\_Please send details of aerated shower heads  
Lori\_GH\_Guidance on dual flush loos  
Lori\_GH\_Please send details of aerated shower units  
Lori\_GH\_Please can we send Dan advice on water saving devices and tips?  
U\_GH\_Water saving products  
Lori\_GH\_Information on Ecotricity  
Lori\_GH\_Information on Ecotricity  
Lori\_GH\_Investigate bill switching services and advice  
Lori\_GH\_Can we shed some light on energy saving bulbs (specifically downlighters in Dan's bathroom)?  
Lori\_GH\_Dan is interested in finding out more about 'grey water' collection  
Lori\_GH\_Investigate funding and initiatives in Lewisham that Sam and Iain might be entitled to  
U\_GH\_Investigate Warm Front grants and top ups  
Lori\_GH\_Grant availability for energy saving measures in the home  
Lori\_GH\_Investigate Green Annuities for interest  
Lori\_GH\_Can we suggest environmentally friendly kitchen floor tile solutions (please investigate porcelain)  
U\_GH\_Info on Construction Resources  
Lori\_GH\_Info on Construction Resources and Natural Resources  
Lori\_GH\_Send Alex info on Natural Resources in Hither Green  
Lori\_GH\_Info on Construction Resources and Natural Resources  
U\_GH\_What is the procedure regarding installing solar panels on the roof of a combined council/private owned block?  
HANNAH\_GH\_Can we look into Ethiscores for washing powder & washing liquids?  
Lori\_GH\_Flight offsetting options  
U\_GH\_Research Carbon Offsetting  
U\_GH\_Research Carbon Neutralising and Investments  
Lori\_GH\_Send Sam and Iain the number for EEAC, Construction Resources and NRG  
Jackie\_GH\_Investigate permissions and rules governing the installation of PVs on listed buildings  
Jackie\_GH\_Research Blower Door Test  
U\_GH>Contact details for Sue Welland  
U\_GH\_RDSAP Report issue and distribution  
U\_GH\_RDSAP Report issue and distribution  
Lori\_GH\_Info on Construction Resources and Natural Resources  
U\_GH\_RDSAP Report issue and distribution  
HANNAH\_GH\_Please send details for cost effective solutions for draughty floorboards  
Cavity Wall Insulation  
Jackie\_GH\_Investigate permissions and rules governing the installation of solar panels on listed buildings  
U\_GH\_RDSAP Report issue and distribution  
Lori\_GH\_Send Andrew information on boiler options as well as CHP  
HANNAH\_GH\_Information on wood burning stoves Versus gas alternatives (advise on suitability in relation to her own home)  
Hannah\_GH\_Source new boiler and investigate scope of this working in conjunction with solar thermal and PVS  
HANNAH\_GH\_What kind of boiler might work well with solar panels?  
Hannah\_GH\_Guidance on costs and installation of solar panels in a conservation area  
HANNAH\_GH\_Guidance on costs and installation of solar panels, and advice on suitability, given that Sam & Iain do not have a south facing roof  
Jackie\_GH\_Research Wind Turbine Assessment



## Appendix 5

### Client Feedback

“...every time I think about the loft insulation, I realize that it has been done, and a problem job that has been preying on my mind for about 3 months has suddenly vanished...So thanks for the work to insulate our house – no longer the wind tunnel that it was” *Mrs LN*

“I have now read the report and have found it really, really useful. I especially like the way that the advice pack is tailored to my house and my own needs. As you know some of the recommendations are being taken forward imminently. The boiler room stat and individual radiator stats are being put in tomorrow - so that should move me up the energy efficiency rating and save some money. Thanks for your help.” *Mr L*

“GREENhomes were thoroughly reassuring in suggesting obtainable goals that were also cost effective...They are committed to meeting householders expectations, however small the changes they are able to make.” *Mr M*

“A really great service – seems a shame more people don’t know about it. I’ve shown everyone the report, including my Mum” *Mrs C*

“It seems that there’s really not much I can do – I suppose I wish we’d known all this before we bought the house” *Mr L*

“I have now replaced all my spot-light bulbs in my kitchen with energy-savers because the electricity meter was telling me it doubled my normal consumption. This gadget even makes my husband raise an eyebrow – “0.6kw – what’s (who’s) causing that!”. *Mrs L*

“Many thanks for your help - I have been really impressed with the service so far.”  
*Mr H*

“I have installed a new thermostat and a new jacket on the water tank. Can I have a pat on the back?” *Mr P*

“I found the audit extremely interesting and helpful - I was very impressed with what I learned of the service. I look forward to receiving the report” *Mr W*

“A lot more information than I had expected – it’s going to take me a while to absorb before I can make a decision on what to do first” *Mr S*

“The initial report was very depressing and didn’t motivate me to do anything. I’m glad you persevered and came back to do other tests as I can take some action now”  
*Mr P*

“You just want to be comfortable in your own home. Not being an energy expert, we just weren’t sure where to start, so this is really helpful. And the results in the report are not as bad as I thought they might be” *Mr B*

**APPENDIX 6 GREEN HOMES PROTOTYPE AUDITS**

Client first name	Client surnames	Fee Due	Payment Processed	Address	RDSAP/NHER	Initial RDSAP/NHER Energy Rating	Energy Efficiency Band	Current CO2	Potential CO2	Total Savings	Improvements committed to
<b>FIRST TRANCHE</b>											
Jeremy	Priestley	FREE		0 8 Macaulay Road, London, SW4 0QX	RDSAP	29	F	26.53	25.04	1.49	Cylinder jacket & stat
Dai	Williams	FREE		0 8 Ashburnham Grove, London, SE10 8UH	RDSAP	27	F	15.3	14	1.3	
Richard	Hurford	FREE		0 116, Amblescote Road, London, SE12 9TS	RDSAP	41	E	12.3	12	0.3	
John	Hingston	FREE	0	33, Manor Mount, Forest Hill, Lewisham, SE23 3PY	RDSAP	66	C	4.8	4.3	0.5	Boiler
Robin	Stott	FREE	0	15 Egerton Drive, London, SE10 8JS	RDSAP	40	E	10	9.5	0.5	
Imogene	Russell	FREE	0	11 Ashburnham Grove, London, SE10 8UH	RDSAP	50	E	7.25	7.23	0.2	
Harriet	Drake	FREE	0	6 Egerton Drive, London, SE10 8JS	RDSAP	31	F	13.5	12.4	1.1	
Steve	Bullock	FREE	0	6 Tyson Road, Forest Hill, London, SE23 3AA	RDSAP	44	E	9.4	8.3	1.1	
Peter	MacLeod	FREE	0	Oak House, 109 Amblescote Road, London, SE12 9TR	RDSAP	39	E	11.6	11.2	0.4	
Worku	Lakew	FREE	0	54 Tresillian Road, London, SE4 1YX	RDSAP	27	F	21.7	21.4	0.3	
<b>SECOND TRANCHE</b>											
Ola	Britten	FREE	0	Basement Flat, 48 Aberdeen Road, London, N5 2XD	RDSAP	62	D	4.4	3.4	1	
Sarah	Chisholm	FREE	0	52 Belmont Hill, Lewisham, SE13 5PN	RDSAP	45	E	13	7.6	5.4	Double glazing and new boiler
Joachim	Fleury	FREE	0	Flat 4, 17-18 Great Sutton Street, London, EC1V 0DP	RDSAP	71	C	4.82	4.8	0.02	Boiler
Miranda	Ludden	FREE	0	24 Westwood Park, London, SE23 3OF	NHER	51	E	7.4	2.5	4.9	Insulation & draughtproofing
Alex	Bonham	FREE	0	70 Pagoda Gardens Blackheath London SE3 0UY	NHER	62	D	3.8	1	2.8	
Geoff	Sutton	FREE	0	107 Langton Way London SE3 7JU	NHER	67	D	6.42	1.026	5.39	
Widiane	Moussa	n/c	0	Flat 3, Ruskin Mansions, Queens Club Gardens, W14 9TN	RDSAP	71	C	2.47	1.82	0.65	
Mark	Watts	n/c	0	39 Bakers Avenue, Walthamstow, London E17	RDSAP	67	D	3.6	3.6	0	
Miles	Montgomerie	n/c	0	37 Anhalt Road, London, SW11 4NZ	RDSAP						awaiting tests results
<b>THIRD TRANCHE</b>											
Sam Starbuck & Matthew	Iain Fletcher	£49.99	TO BE PAID	78 Pepys Road, Lewisham, SE14 5SD	RDSAP	31	F	13	12.4	1.4	Boiler
Janet	Lodge	£99.99	PAID	193 Manwood Road, London, SE4 1SF	RDSAP	58	D	5.4	3.4	2	Boiler
Scott	Currier	£49.99	TO BE PAID	15 Ommaney Road, London, SE14 5NS	RDSAP	42	E	11	7.0	4	Boiler
Tomas	Ford	£49.99	TO BE PAID	58 Killyon Road, London SW8 2XT	RDSAP	25	F	15	8.4	6.6	Boiler
Geoffrey	Sloane	£49.99	PAID	67 Belmont Hill, Lewisham, SE13 5AX	RDSAP	67	D	4.4	3.4	1	Insulation & draughtproofing
Andrew	Burgess	£99.99	PAID	21 Baalbec Road, Islington, N5 1QN	RDSAP	53	E	12	11.4	0.6	Draughtproofing
Dan	Thomas	£49.99	PAID	109, Tresillian Road, London SE4 1XZ	NHER	68	C	3.3	0.68	2.62	2nd visit to be done
Kerena	Tallis	£49.99	PAID	60 Francemary Road, Brockley, London, SE4 1JS	RDSAP	61	D	4.9	3.5	1.4	2nd visit to be done
David	Richards	£49.99	PAID	1 Sibella Road London SW4 6JA	RDSAP	36	F	13	10.1	2.9	Boiler
	Sandbach	£49.99	PAID	9 Westbourne Road, London, N7 8AR	NHER	49	E	4.4	0.99	3.41	Boiler
<b>FOURTH TRANCHE</b>											
Jennifer	Moses	£99.99	PAID	4 Upper Terrace, London, NW3 6RH	RDSAP	46	E	35.31	34.53	0.78	
Kay	Avila	£49.99	TO BE PAID	39 Tetherdown, London, N10 1NH	RDSAP						2nd visit to be done
Stella	Farrar	£99.99	TO BE PAID	45 Coopers Close, off Cephas Street, London, E1 4BB	RDSAP						2nd visit to be done
Julie	Ford	£99.99	TO BE PAID	11 Turret Grove, London, SW4 0EX	RDSAP						2nd visit to be done
Julinka	Doenhoff	£149.99	BOOKED	47 Holland Park, London, W11 3RS							
Theresa	Villers	£99.99	BOOKED	13 Barnet Gate Lane, Barnet, EN5 2AA							
Roxanna	Macklow -Smith	£99.99	BOOKED	4 Rectory Road, Barnes, SW13 0DT							
Dan	Johns	£49.99	BOOKED	65A Ingelw Road Wandsworth London, SW8 3PE,							
Paul	Tabor	£99.99	BOOKED	24 Settrington Road, London, SW6 3BA							
Tom	Altken	£99.99	BOOKED	26, Norfolk Mansion, Prince of Wales Drive, SW11 4HJ							
Carole	Cox	£99.99	BOOKED	30, King Henry's Road, London, NW3 3RP							
									<b>TOTAL CO2 SAVINGS POTENTIAL</b>	<b>53.28</b>	<b>1.68 tons per household</b>