

LESS Home Energy Service

Evaluation report

Kathy New, Project coordinator

July 2012



LESS Home Energy Service Evaluation Report

September 2010-July 2012

Contents:	Page
Executive summary	2
Introduction	3
Funding	4
Staff	4
Outcomes	5
Added value	10
Lessons learned	13
Actions for the future	18
Case studies	19
Appendix 1 Resurvey form	24

Executive summary

The Home Energy Service began in September 2010 as a result of a successful bid by LESS to Scottish Power Energy Peoples trust and a Charities Aid Foundation Trust, as part of the Lancaster District Affordable Warmth Action plan. The service was developed by the staff team and modelled on a similar service running in Bishops Castle (Household Energy Service). During the life of the project, 40 volunteers were recruited and trained to visit people in their own homes and collect data for an energy report. This information was passed to the energy officer who produced a report for the householder containing information on energy saving measures and practices specific to the home, grants available, local suppliers and installers. Volunteers then contacted the householder to make sure they understood the report, and if they need any further information or help. 450 homes have been surveyed, with 956 people benefitting from the service so far (a further 58 home surveys are in progress), 26% of which are in fuel poverty. This percentage has been increasing steadily since the beginning of the project, and is now higher than the DECC figures for the area. We have established strong partnership working relations with a number of local organisations providing referrals into the service to target vulnerable people.

We have a thermal imaging camera which has been used to show people where heat is leaking out of their homes. We have delivered training to a number of organisations across the county, and put on networking events for front line staff across the North West, to share best practice.

We have run utility bills clinics in libraries and community venues to 'health check' people's bills and look at tariff options with them, and also refer people for grants, benefit checks and to fuel debt relief charities. Utility bills clinics have saved people £9990 in total, an average of £166 per household per year.

So far our recommendations total average potential savings of £246 per household per year, and 2.1 tonnes carbon. 10% of the homes we have surveyed were revisited in the last four months to determine the actual carbon and cash savings, and to look at measures installed. The response to the service was overwhelmingly positive, with everyone speaking encouragingly about the service, and its usefulness in increasing their knowledge and engagement with energy efficiency, as well as improving the comfort in their homes.

In practice, savings have been less than recommended due to a number of factors: the time of year we resurveyed, changes in peoples circumstances, adverse weather and rising fuel prices, barriers to taking up measures due to costs and changes in feed in tariffs etc. However, 79% of people surveyed have made changes to their home and behaviour as a result of the advice they have received from the Home Energy Service.

In January 2012 we were named as North West winners of the National Energy Action's Community Footprint Award, in partnership with the Department for Energy and Climate

Change (DECC), and runners up for the National Award, which rewards best practice in the areas of fuel poverty and carbon reduction.

With current government grants and energy efficiency schemes about to change in October 2012 with the introduction of the Green Deal, there is a great need for independent advice and information from trusted sources on new options and grants available, both for the public and third sector organisations working with vulnerable people.

We are currently seeking funding to secure the continuation of this successful and much needed project.

Introduction

The Home Energy Service began in September 2010 and was proposed by LESS in partnership with the North Lancashire Affordable Warmth group, as a response to high levels of fuel poverty in the Lancaster district.

According to DECC, over 20% of households in Lancaster District were predicted to be living in fuel poverty in 2006; this was considerably higher than the Lancashire average of 15%. Given recent increases in fuel poverty, due to higher fuel prices and the current financial crisis, the number of households affected in 2010 was even higher. The District has eight wards in the worst performing 10% of areas in the UK for fuel poverty; the Service was targeted in these wards. Lancaster District also has a very high incidence of Excess Winter Deaths with 272 deaths between the winters 05/06 and 07/08.¹

The Home Energy Service has a team of volunteers who visit people in their own homes, and go through an energy survey, and offer specific, in-depth energy saving advice for people on a 1-to-1 basis in their own home. This is invaluable, as people can be shown easy things such as how to use their heating systems etc. The only alternative to this is the Energy Saving Trust's energy helpline, which has limited effect, and cannot help with specific issues in the home, spot other issues people may have and refer to other local organisations.

¹ These figures, although now out of date, are included as they were used in the original bid show the extend of fuel poverty and its impact at the time the project was developed.

Funding

The project has been funded from several sources, the main ones being £51800 from Scottish Power Energy Peoples Trust (SPEPT), and £55527 from LEAST, a charities aid foundation trust (see Fig 1 below for further details).

Funders	Amount	Time Period
LEAST (CAF)	£53527	June2010-June 2012
SPEPT	£51800	June 2010-june 2012
Referral fees (payments made by installers of solar PV and insulation)and donations	£1238	Ongoing
Grant for camera (BGET)	£2895	November 2011
Inclusev networking event	£3661	June 2011
BT (for energy audit of St John the Divine)	£600	March 2011
Community Footprint Award	£2000	Jan 2012
Warm Homes Healthy People (Lancaster district)	£3600	Jan-March 2012
WHHP (Ribble Valley)	£150	Jan-March 2012
LEAF	£3400	Jan-March 2012
North Lancashire PCT	£8000	March-Nov 2012
Participatory Investment Programme (PIP) for social enterprise development from Lancaster district Local Strategic Partnership	£4880	June-Nov 2012

Fig 1 Funding table

Staff

The project has three staff members, Kathy New, Project Coordinator, Peter Wiltshire, Energy Officer and Ruth Dawson, administrator. Ruth went on maternity leave between August 2011 and June 2012, and during this time, Desna Mackenzie has been covering this post.

Outcomes

The project had six clear objectives:

1. Establish a free home energy service that can be accessed by all local residents in the area and acts as a fuel poverty referral and response point for front line staff working in the Lancaster District.
2. Survey 500 homes in the district
3. Train up to 50 volunteers
4. Deliver a publicity campaign to promote the service
5. Bills clinics and energy advice sessions
6. Development of a Home energy Service Action team (HEAT) to deliver easy interventions

Outcome 1: Establish a free home energy service that can be accessed by all local residents in the area and acts as a fuel poverty referral and response point for front line staff working in the Lancaster District.

The project coordinator was recruited in September 2010, and the other project staff shortly after that. The first group of volunteers were recruited and trained in 2010, and by January 2011, were completing their first surveys.

Members of the Affordable Warmth group agreed to act as the steering group for the project, and a referral system was established with local partner organisation such as Help Direct, the Fire Service, the Home Improvement Service and the city council.

Volunteers initially surveyed neighbours and people they knew, in order to gain confidence and develop their skills. As the referral process became established, the percentage of those surveyed in fuel poverty has been steadily increasing.

In March 2012 we asked one of our volunteer students to evaluate the surveys by visiting people who had been surveyed over 6 months ago, in four of our target wards: Bulk, Castle, Dukes and Halton. An example of the survey can be found in Appendix 1. We asked questions about the following aspects of the service:

- 1) Physical and behavioural changes made since the last survey and whether the client was planning more future changes.
- 2) Changes the client would like to make and the barriers they face in not being able to implement these.
- 3) Changes to energy bills since the original survey.
- 4) The client's travel habits to help calculate the household carbon footprint.
- 5) Client's experience of the survey process and suggestions as to how LESS could improve the service.

The results from the questions about physical and behavioural changes are shown in Fig 2 over the page.

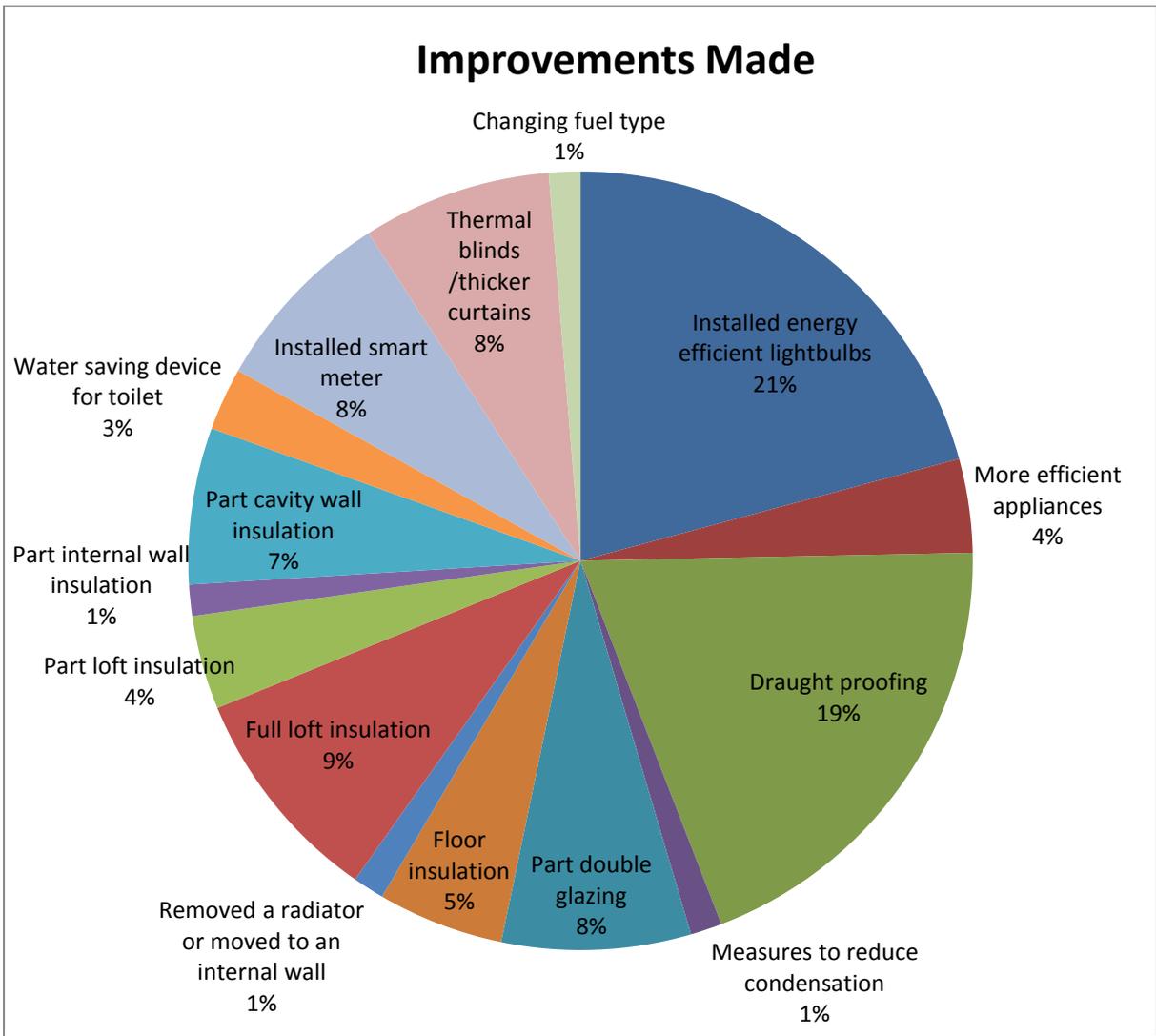


Figure 2: Physical changes made to home to improve energy efficiency

The most common improvement to increasing a household’s energy efficiency was the installation of energy saving light bulbs, closely followed by the installation of draught proofing. Curtains, thermal blinds and window replacement were also popular actions.

Behavioural changes

The most common behavioural change involved heating with most clients turning down the thermostat settings followed by clients putting the heating on less (see Fig 3 on the next page).

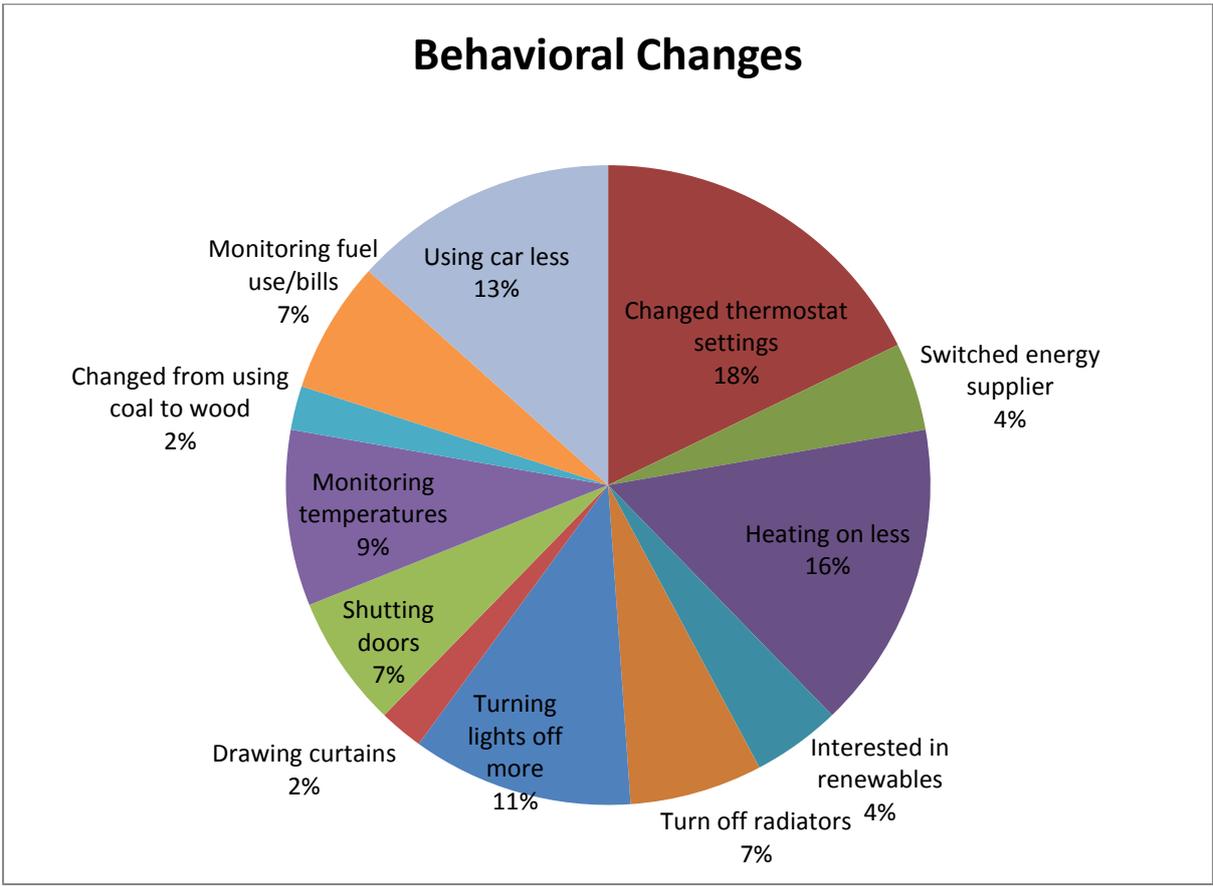


Figure 3: Behavioural changes made as a result of the Home Energy Service

Barriers to Change

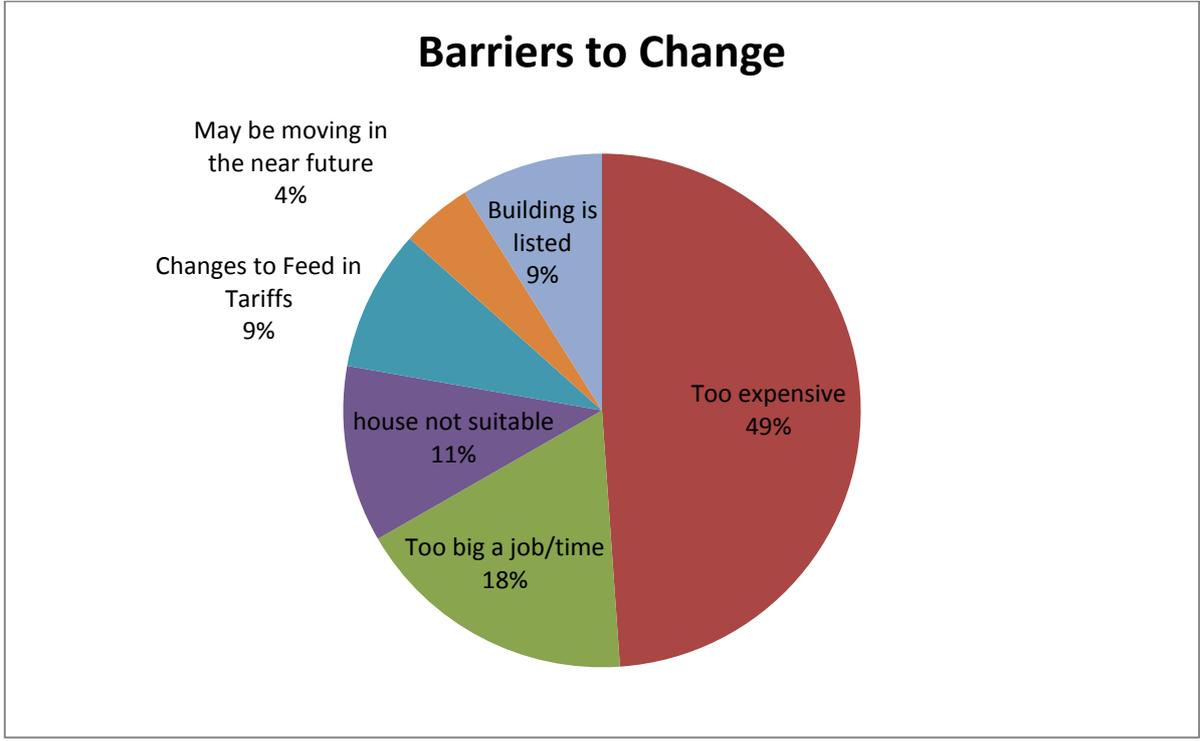


Figure 4: Main barriers to change with regard to energy efficiency

The types of barriers faced were wide ranging as shown in figure 4, however the most commonly cited by clients was the fact the improvement was too expensive at the time. This indicates that there is real scope for helping people to access Green Deal financing in order to improve the energy efficiency of their properties, when it becomes available in the Autumn 2012.

Outcome 2: Survey 500 homes in the district.

We have surveyed 450 homes in the district between December 2010 and June 2012. We have 58 more homes that are 'in process' i.e. either awaiting a volunteer visit or a report being produced. Referrals to the service slow down considerably during the spring and summer months, and increase dramatically from October to March.

Outcome 3: Train up to 50 volunteers

We have trained 45 volunteers as surveyors, and 5 other people have worked on the project with us in different roles (e.g. administration, producing the newsletter, working on insulating a demonstration dolls house), 20 of these volunteers are still active with us. Our volunteers come from a variety of backgrounds and age groups (15-73). People volunteer with us for a number of reasons, but broadly fall into the following three categories:

- Students looking for experience in the sector to increase their skills and improve their chances of paid employment.
- Retired people looking to contribute to the community and make a difference
- People wanting experience for a change of work role.

The student population is transient, but important, and very useful for forging cross generational links and increasing skills in the community. We have also recently taken on one of our volunteers in a paid capacity, and a number of our volunteers have gone on to achieve paid employment elsewhere, partly as a result of skills they have developed whilst volunteering with us.

We have a volunteer who is trained in British Sign Language (BSL), which is excellent for accessing members of the deaf community. All our volunteers provide references and are CRB checked, as we deal with vulnerable people.

As part of the evaluation for the project, we conducted 1-to-1 semi structured interviews with the volunteers, and asked what had gone well, what we could be doing better, their experience of the home energy service and reports, suggestions for the future and training issues.

Volunteers were overwhelmingly positive, with everyone saying they enjoyed volunteering with the project, and felt it made a real difference to people's lives.

Evaluation: The volunteer training programme has been very successful, with everyone stating that their knowledge of energy efficiency has increased. One of the issues we have

had is getting volunteers together for training updates, so in future we will plan a regular three monthly update meeting for all volunteers, and put this in the diary at the start of the year. Feedback will be sought from volunteers during these meetings as to any areas that they feel they need more training on, and this will be the focus of the next session.

Volunteers also felt that shadowing should be a formal part of the training. This was difficult in the early stages as we had no one experienced enough to do this, but now that we have an established set of volunteers it is a great opportunity for improving the quality of future volunteer training

We need to recruit volunteers from a wider section of society, for example, only one of our volunteers is from Morecambe, and we have no Polish speaking volunteers, even though we have a relatively large Polish speaking community. We will concentrate efforts to recruit Polish speaking volunteers through developing better links with the community through the Polish church and the Polish Centre in Lancaster.

Outcome 4: Deliver a publicity campaign to promote the service

Promotion of the service has been very successful, and taken the form of posters, leaflets distributed via community centres and partner organisations. Using the council's thermal imaging fly over data, we leaflet dropped areas with 'red roofs' indicating thermally inefficient homes. This approach was not very successful, and only two households responded. Much more successful has been attending events such as lunch clubs, children's centres and partnership events. This is in part due to the bombardment of 'too good to be true' offers coming through peoples doors, and through cold calling on the phone and door knocking by insulation and energy companies.

Several press releases have been issued and appeared in the Lancaster Guardian, as well as appearance on BBC radio Lancashire, the Bay radio station and Diversity FM. Magazine articles in 'Your district council matters' delivered to all homes in the district, have been more successful. Bills clinics have also been a good vehicle for promotion of the service.

We have also redeveloped the website, and developed a presence on Facebook and Twitter as an organisation generally. We receive several enquiries through our website, as well as offers from volunteers. This has been a successful tool, and more time could be invested into marketing and promotion through the website and social media generally.

More work could be done to celebrate the service, e.g. our 500th survey would be a great article in the paper, radio and publicise through social media.

Outcome 5: Bills clinics and energy advice sessions

We have exceeded our targets of six energy advice sessions, and have run 43 bills clinics to date, and 12 training sessions with groups other than our volunteers. Bills clinics have saved people £9990 in total over the 18 months we have been running them.

Outcome 6: Development of a Home energy Service Action team (HEAT) to deliver easy interventions

This outcome was dependant on the Service accessing future jobs funding for the second year of the project. Sadly, the funding for this was withdrawn. However, in February we secured funding to develop a thermal imaging service for businesses in the local area, and future plans involve the person in this post installing draught proofing measures in the summer, when thermal imaging is not effective.

Added value

When we started the project, as well as delivering the outcomes which we were funded for, we also identified community needs in other areas, and responded by adding other aspects to the project.

Thermal imaging

At a steering group meeting a member of Lancashire County Council mentioned they had a thermal imaging camera we could borrow for a week. After some initial training, we used the camera on our home energy survey visits, to show people where heat was leaking out of their homes. This was a really successful tool for making energy loss visible for people, and home energy staff worked day and night to visit people and make full use of the camera. We specifically targeted one of the rural wards in the district (Halton) and completed 10 surveys in that ward alone during this week. We later applied for funding for a camera of our own, which we secured and purchased in November 2011. This is a really useful tool for engaging people in their energy use, and identifying areas of heat loss in the home, and making this easily understandable for people.

Utility Bills Clinics

At one of our steering group meetings a number of partner organisations (CAB, AGE UK, Help Direct), as well as staff members within the team expressed concerns people have about tariffs, how confusing choosing a tariff is, and how difficult it is to get independent advice. There was also concern about people having high bills and not having the confidence or the knowledge to challenge these and make sure they were correct. We decided to run Utility Bills clinics to meet this need, and have run 43 over the life of the project in venues such as Morecambe, Lancaster and Heysham Libraries, Carnforth Fire station, the Rainbow

Centre, Friendship centre, community centres and schools. So far 70 people have been given independent information on the different tariffs available for them through uswitch, and we have saved people an average of £166 per year, ranging from £24 to £486. These figures do not include some of the more interesting cases we see such as one of our case studies; a vulnerable elderly woman who visited our clinic as she was worried about her bills, and we identified that her day and night tariffs were connected the wrong way round. She subsequently received a cheque from her energy company for £865.

LEAF

We were successful in obtaining a LEAF grant from DECC to develop a demonstration ecohouse in January 2012 in Skerton, one of the wards in the lowest Super output areas in the country. From our tracking of take up of Home Energy Surveys by ward, which we review each month, we recognised that there was a low take up in Skerton, and as part of the LEAF project we worked with the community centre and a local school offering them free energy audits, training for staff and running engagement events in the area including open days for the house. Measures installed in the demonstration house included internal solid wall insulation, cavity wall insulation in a ground-floor extension, loft insulation, draught-proofing and low-energy lighting. Thermostats and monitors were installed to measure changes over time.

We also commissioned two animated explainer videos which are now on our website, aimed at providing an accessible engaging way to spread information on preventing draughts, mould and condensation, and improving health generally. These have been very well received and allow us to engage different groups in the community.

Halton Carbon Positive

Halton Carbon Positive is a project that aims to help the rural community of Halton to reduce their carbon emissions, through energy advice and other activities as requested through community consultation, and is funded through feed in tariffs (FITs) from a solar panel array on the roof of an industrial building in Halton. The Home Energy Service has provided surveys for 33 households in Halton, and is planning to continue delivering energy saving advice in the parish.

Networking event Inlusev

In July 2011 we were asked to run a networking event for front line practitioners across the North West by Inlusev, a research cluster linked to Lancaster University. The event included workshops to share good practice on finding the fuel poor, problems with the definition and

issues with hard to heat homes, and was attended by 30 delegates from organisations across the North West.

Community Footprint Award

In February 2012 we were named as winners of the North West Community Footprint Award, which recognises best practice in the fields of fuel poverty and carbon reduction, and gave us £200 to add to the project. The award is given by the NEA in partnership with DECC and British Gas. We were also named as runners up for the National Award, which enabled us to raise the profile and awareness of affordable warmth in the district, and represent fuel poverty issues in the North West during an audience with Ed Davey, Secretary of State for Energy and Climate Change, at Westminster in June 2012.

Training

The Home Energy Service has developed training courses around the causes, effects and recognition of fuel poverty, energy efficiency awareness and options available for help. Training has been delivered to many different groups across Lancashire, aimed at raising awareness of the issues, increasing skills in front line staff and promoting energy awareness as widely as possible. Groups we have visited include Private housing council staff, Schools and community groups in the district, job clubs, Help Direct, Age UK and landlord forums. As well as our 45 volunteers, we have delivered training to 112 other people.

Referrals and wider social impact

It cannot be overstated how important it is to have someone visiting people in their own home, being able to deliver 1-to-1 specific in-depth targeted advice for people. This also has a huge benefit in volunteers being able to spot other issues that people may be having, and refer them to agencies to help with this. From these referrals, we have helped people with benefit checks, successful applications to fuel debt relief charities, referrals for free loft and cavity wall insulation, and to the Home Improvement Service for help installing energy efficiency measures at no cost. We have received 94 referrals from Help Direct alone, as well as others from agencies such as the CAB and DISC, and made 95 referrals to organisations such as Help Direct and the CAB for benefit checks and debt advice, Warm Front, Warm Homes insulation schemes and the Home Improvement Service.

As a result of one of our bills clinics in the rural village of Hornby, we were contacted by a 77 year old gentleman who had been given one of our leaflets after complaining about electricity bills of £1400 to one of the staff in the Hornby Institute. After speaking to the client, the project coordinator visited his home (his first visitor in a number of years) which was privately rented and had no central heating, just electric fan heaters, mould

everywhere and holes in the ceiling. The housing conditions were having a serious impact on his health and he was concerned about long term effects of continuing to live in the property, but did not want to move as he had been there for 40 years. After discussion with the client, they agreed to be referred to Help Direct and Private Housing in order to help improve their living conditions. We also spoke to his energy company and got them out to check his meter to make sure it wasn't faulty, and look at cheaper tariffs for him, given his vulnerable status. This is just one example of the wider social impact of the project.

Attendance at events

LESS has attended a number of events over the past 18 months including:

Lunch clubs, children's events, Alzheimer's events, carer's events, affordable warmth events, community events, housing association events, faith groups, parish events and many many more. These events have not only been useful for promoting the service, but for raising the profile of affordable warmth in the district generally.

Energy Audits for community buildings

We have completed energy audits on St John the Divine Church and Church Hall at Heysham (funded by British telecom), Skerton Community Centre, and St Luke's Primary School in Skerton (funded by LEAF). These were Thermal imaging of Halton School and Community Centre. After discussions and advice sessions with the Rainbow Centre in Morecambe they installed PV panels on their roof.

PV advice for householders

At least eight households installed solar PV as a result of our advice, investing over £100,000 in renewable technologies in the area.

Lessons learned

- Data base

It became clear that the database we bought from the Bishops Castle Household Energy Service project was not fit for purpose, as it only dealt with owner occupiers and focussed on carbon rather than cash savings, had no measure of fuel poverty and did not fully represent the housing stock for our area. We have 'tweaked' it until it has become a Frankenstein's monster that generally manages to give us the information we need, but for the next phase of the project, we would like to redesign the survey forms, reports and database to take into account the needs of our local community.

- Need two energy officers to avoid bottleneck and quality control

Another issue has been having one energy officer producing reports and providing specialised visits and advice, and running bills clinics. Although volunteers have been great

at helping out with these things, there has been a bottle neck with regard to energy officer time, particularly during the cold winter months when referrals are at a high volume. We have time delays of up to 6 weeks for some reports during our busy times, which we would like to reduce to make the service more relevant and effective. There is the issue of quality control and it would be a good idea to have two officers so that they could check each other's work.

- Volunteer training

It has been difficult to get volunteers together for update training, as they are often free at different times, and despite our best effort with feeding people and home baking, we have had poor attendance at some events and on another occasion had to cancel some planned training. After consultation with our volunteers we have decided to plan a regular quarterly update meeting so that these can be diaried during initial training, and hopefully more people will be able to attend. It would also be better to concentrate the training aspect of our work in the Spring/Summer months, when there is less pressure on time due to a lower number of referrals.

- Targeting communities for volunteer recruitment

After consultation, we realise we have a lack of representation from some areas of the community in our volunteers, and would like to target some minority communities such as rural areas and the Polish community.

- Bills clinics

Running bills clinics in community venues when other sessions were already in place proved more effective overall than putting on clinics and expecting people to come to us.

- Redesign report format

From consultation with our volunteers, and from informal feedback throughout the project, we would like to redesign the report to make it more user friendly. A recent Consumer Focus report on best practice in planning energy efficiency from a customer perspective describes the importance of making sure information is relevant to the person, and that one size does not fit all. We currently have two reports which we send out to people, an in depth survey report containing recommendations, potential savings and grants available, carbon savings and local suppliers. Due to the complex nature of some of the issues, it has a relatively high level of literacy requirement. We also send out a summary report which contains a clear image of the suggested measures, a phrase describing why it has been suggested, potential savings and potential costs. This is much more accessible for people with lower literacy levels. It would be useful to redesign the main survey report to include a 'local directory' of suppliers at the end, which could be included with the summary report, should people only be interested in accessing that level of information. A number of volunteers have expressed concern regarding the limitations of the report, and it would be good to develop a working group to redesign the reports, and make them more relevant

and accessible for people. Three volunteers have expressed willingness to do this. It was also suggested during our volunteer consultation that householders should be encouraged to set their own goals with regard to energy improvements, once they had received the report explaining what they could do, and that volunteers could help them with this when they recontact them. This ties in with recommendations in Consumer Focus' 'Planning energy efficiency behaviour change from our customer's perspective' best practice guidance 2012, which recommends encouraging consumers to set their own goals as a way of motivating behavioural change.

- More time spent developing relationships in some wards

We monitor the number of clients accessing the service on a monthly basis, via the pie chart below which is linked to our database, in order to make sure we are reaching the most deprived wards in the district. However, it is clear that some of the rural areas such as Upper Lune Valley are in need of a more targeted approach, and extra effort is needed to engage those communities. We have found that running bills clinics in rural districts is a good way of raising awareness of the service generally in those areas, and future bills clinics will be targeted accordingly.

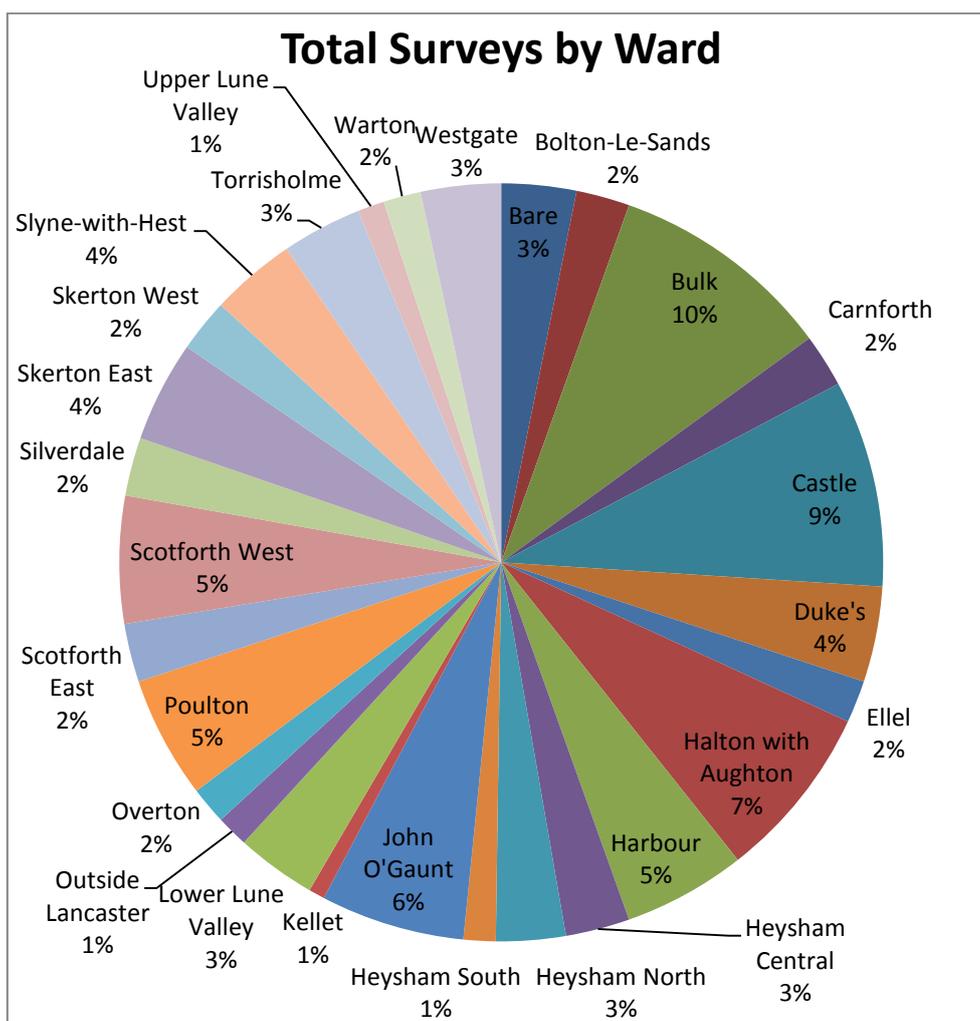


Fig 5: Percentage of surveys completed in each ward in the Lancaster district

- Gaps in provision

We have identified a number of gaps in provision of energy efficiency services. One of these is for people living in park homes, of which there are at least 600 in the Lancaster District.

Many people in these homes are elderly, having downsized from conventional dwellings in order to live more economically. Loft and cavity wall insulation are not appropriate, and many other grants such as warm homes discount do not apply to Park Homes. There are also issues with tariffs, as many people buy their electricity from the park owner, but gas is bottled, which means people are ineligible for dual fuel discounts. There is a real need for advice and information for people living in these communities. There is also a gap in provision with regard to grants for solid wall insulation, which makes up 31% of the homes in the district. Hopefully, this will be dealt with in the Government's Green Deal and Energy Company Obligation (ECO), which will provide a funding mechanism for solid walled homes. There is however, a real need to provide accurate, up to date information about this to people, and to publicise the availability of the finance so that local people are well informed and able to access the finance.

- Partnership working

Establishing and maintaining strong links with partner organisations has been key to the success of the service, and has enabled successful referral pathways to develop and target the most vulnerable people in the district. This has taken time to develop, and the percentage of people we have been reaching who are in fuel poverty has been steadily increasing during the life of the project. Working together, and being aware of services offered by other organisations such as Help Direct, Age UK, the Home Improvement Service, and how to access them, is an important training point for staff and volunteers, and all people involved in the project need regular updating on this. The project has also identified the need to focus specifically on energy and tariff advice, and to leave other specialised services such as benefit checks, fuel debt application forms and wider financial capability issues to other partners operating in the area, so as to maintain a manageable workload, a high degree of specialised up to date advice, and not to duplicate services already operating in the area. This is why a smooth and effective referral system is crucial to meeting the varied needs of vulnerable people in the district and beyond.

- Need for the service in rural areas outside the district

Through attending events across the district and beyond, we are often approached by people wanting to access the service outside of the district, and would like to offer this service across other areas of Lancashire, as there is a real need for people in rural areas to have access to 1-to-1 energy efficiency advice in the home, due to high levels of fuel poverty in rural communities. From the Lancaster City Council Housing Strategy 2008/9, rural areas of the district have the lowest energy efficiency SAP rating, highest CO₂ profile accompanied by the highest annual fuel costs. Across tenures, the private rented sector had the worst SAP rating of 49 whilst the RSL sector had the highest rating of 72. The average fuel costs in the district were £783 per year, with rural areas being most costly at £939, followed by the West End at £817. There is a similar picture in rural communities across the North West,

which also have a higher than average number of elderly occupants at risk from health conditions exacerbated by cold, and a higher proportion of people in fuel poverty. Lancaster District has 17,722 solid walled properties (31% of the housing stock), 4,677 of which are off gas (8% of the housing stock) [Rural Fuel Poverty website, 2012] In comparison, 58% of Pendle's housing stock is solid walled, and 44% of Ribble Valley, which also has 15% of its properties of the gas grid.

- Resurveying shown disappointing financial gains, but high proportion of measures installed from advice given

In March this year, we asked one of our volunteer students to conduct some resurveys in order to evaluate the project so far, and to find out what people have done as a result of our advice, what they have not done, and any barriers they may have come across to installing energy efficiency measures. We also looked at their fuel consumption and expenditure. The figures were disappointing for a number of reasons: The winter covered by the resurvey was much colder than that covered in the original survey, so fuel use had not decreased, even when energy efficiency measures had been installed. Some people's circumstances had changed; elderly relatives may have moved in, people may have moved out, or become ill, or not been away as much this year. Also, some of the figures we had from people were for a shorter time period than a year, and due to the seasonal nature of energy use, we need figures over a full year to get a better picture of what is really happening. In the future, a three year project rather than a two year one would be better for monitoring energy changes. From our resurvey with people who have had surveys, and from activity spikes in our website, emails and telephone calls, there is repeated interest in energy efficiency as a result of our newsletter. This is very well received, and indicates the value of continued contact with people rather than one off advice. It is really useful to have a database of over 500 homes who have received some energy advice from us, and to keep them engaged in energy efficiency issues.

- More work with landlords

We have started to make inroads with private landlords in the area through the landlord forum run by Lancaster City Council. This is still a great deal to be done in this area, and there are tensions between landlords wanting advice on their property and thermal imaging, and behavioural advice to tenants. In the past, we have been approached by landlords and asked to survey the property, which we are reluctant to do as our advice focuses on behaviour as well as property issues. However, accessing private landlord properties is a very positive step towards reducing fuel poverty in the district.

Actions for the future

1. Develop a new data base to measure the outcomes we need and to store data relevant to the North West and fuel poverty
2. Employ two energy officers to cope with the demand and to provide quality control with reports through internal checking systems
3. Running bills clinics in existing groups rather than putting them on in places and expecting people to come to us.
4. Ensure regular training is planned in at the beginning of the year.
5. Make shadowing a formal part of volunteer training.
6. Adapt the report to allow more flexibility and response to specific client issues. This must be balanced with time taken to produce the reports, and links to the second energy officer appointment.
7. Encourage clients to participate in their own goal setting with regard to energy efficiency improvements and practices.
8. Develop information tailored to Park Home communities.
9. Build on relationships with Private landlords, and develop this advice service further.
10. Measure outcomes in terms of behaviour change and measures installed, not money spent on energy.
11. More work in neighbouring areas such as Ribble Valley and the AONB's with high numbers of solid walled off-gas properties.
12. The project to run over three years not two to allow adequate comparison of data, and to allow referral pathways to develop and strengthen.

Case study 1

Name: Isabella Curwen

House Type: Victorian Stone Built Terrace, Owner Occupied

Location: City Suburbs, Bowerham, Lancaster

HES Support: Utility Bills Clinic & Home Energy Survey

Main Issues: High energy bills, storage heaters

HES Utility Bills Clinic Support

Isabella had been worried about the size of her electricity bills for some time, but was too embarrassed to tell family and friends how much she was paying to run storage heaters.

She said: *'I thought that was the price I had to pay for a lovely warm house. But it seemed strange that the size of the bills didn't go down in the summertime.'*

After picking up a leaflet advertising the regular HES Bills Clinics she was first in the queue for the next one at Lancaster Library.

HES Advice

Isabella Curwen was delighted when, after consulting the HES team she was able to reclaim a massive £865 from her electricity provider. Isabella has also had a Home Energy Survey of her house to see if she can make any further savings in her home. As a result she will be having her house insulation upgraded very soon. Then we hope that next winter will be both cosy AND affordable for her.

Feedback

I was there on the dot clutching my electricity bills. They hadn't looked at it for more than 5 minutes when they realised what the problem was. The electricity company were charging the top rate for the night-time use of the heaters and the lower rate for daytime use – a very expensive mistake! They contacted the company and it was all sorted out by the time I left the library. I was really pleased about that.

Isabella Curwen, February 2012



Case study 2

Name: Paul De Rome
House Type: Flat above shop, Private Rented
Location: Town centre, Morecambe
Utility Bills Clinic & HES Survey: February 2012
Main Issues: Uneconomical heating, poorly maintained rented property



Home Energy Survey Findings

Ex-serviceman Paul De Rome was stressed and struggling to pay his electricity and heating bills after moving from Salford (where he experienced social harassment) to a cold and draughty flat above a shop in Morecambe.

Paul asked for advice at an HES Bills Clinic event held at Morecambe's Arndale Shopping Centre. He said: *'I am definitely in fuel poverty. A combination of uneconomical electric heaters, Calor gas heaters and a coin operated electricity meter is very expensive and not very effective.'*

An energy survey of Paul's rented flat revealed that it was very badly insulated and heated by faulty and expensive electric heaters.

Energy Saving Recommendations

His energy report recommended some cheap and easy ways to draught-proof the flat and explained how he could apply for a grant for insulation, even though he is not the owner of the flat.

He has also been referred to Help Direct for more help, such as fire safety checks and advice on how to change his electricity supplier in order to move to a more affordable tariff.

Feedback

After the initial contact with the HES team at the Bills Clinic and a subsequent Energy Survey, Paul felt, for the first time since his move from Salford, that he was in control of his environment and his finances. He has now recommended the service to his parents.

Case study 3

Name: Joyce Whalley
House Type: 1850s Stone End Terrace Cottage, Owner Occupied
Location: Rural Village, Overton, Lancaster
HES Survey: July 2011
Main Issues: Inefficient Boiler, Draughts



Home Energy Survey Findings

Joyce Whalley had an inefficient and unreliable boiler and her 1850s cottage was proving difficult to heat. A volunteer surveyor from LESS visited her and talked through several options and carried out a full Home Energy Survey. The LESS Energy Officer carried out a search on the SEDBUK database and found that her boiler was only 70% efficient.

Energy Saving Recommendations

Joyce tried to get a new boiler via Warm Front but was unsuccessful, but has since installed a new condensing boiler that has an efficiency rating close to 90%. This should create considerable savings in energy bills. Joyce has also been directed to Lancaster City Council's Handyperson scheme for items such as draught proofing.

Feedback

Joyce said of her experience with the Home Energy Service:

It was interesting and informative; the volunteer surveyor had good knowledge of the issues which concerned me.

*I haven't carried out the draught proofing yet, the front door has distorted a bit and is letting cold air in. I will now contact the Handyperson Scheme to get this and other small jobs done. **I would certainly recommend the LESS Home Energy Service to anyone!***

Joyce Whalley, Feb 2012

Case study 4

Name: Keith & Jadwiga Hanley
House Type: Listed Large Victorian House, Owner Occupied
Location: Rural village outskirts, Halton-with-Aughton, Lancaster
HES Survey: January 2012
Main Issues: Listed building, off-gas grid, oil heating system, high fuel bills.



Home Energy Survey Findings

Keith and Jadwiga live in a large early Victorian house outside the village of Halton with Aughton near Lancaster. It is part of a listed country mansion which was divided several years ago before building regulations focussed much on energy efficiency. The property does not have a gas connection and has an oil fired heating system with large bore pipes and a 65% efficient boiler which is approximately 30 years old. The house is frequently very cold in winter despite extremely high fuel bills.

Energy Saving Recommendations

The HES Energy Report made several energy saving recommendations. Including:

- boiler replacement
- upgrading and flushing the heating system
- improved heating controls
- draughtproofing
- secondary glazing
- chimney balloons
- reflective radiator panels

Feedback

They found the report useful and the independent advice has helped them focus on measures to improve the comfort and efficiency of their home.

We are considering all the measures and have already appointed an engineer to give us a quote for boiler replacement and the general upgrading of the heating system. We are looking at various methods to reduce draughts and will probably also consult the Lancaster City Council's handyperson scheme to find out if they can also help and advise on the best methods. We are replacing most of our lighting with energy saving types and we may fit reflective radiator panels in the most appropriate places. We are also trying to find a suitable craftsman to look at double glazing.

We would definitely recommend the LESS Home Energy Service to friends and relatives.

Keith Hanley, March 2012

Case study 5

Energy debt relief:

Mrs C was referred to us in January 2012 by Help Direct. She had fuel debt of over £200, was living on disability benefits and was having financial difficulties. She was not receiving any money from her husband and could not afford to heat their home adequately.

She was visited by Kathy and Peter from the Home Energy Service on 2nd February 2012. The heating at the time of the visit was set to a very high level. Peter discussed the correct use of thermostats and controls with Mrs C, while Kathy sat and discussed Mrs C's debt situation with her.

After completing a Home Energy Survey, Peter and Kathy returned to the house with reflective radiator panel material, and energy efficient light bulbs. They also provided details of the Charis Trust and explained how to make an application.

Peter contacted Mrs C in May 2012, by which time she had received a grant of £240 from the Charis Trust which paid off the fuel debt. Mr C had left the home some weeks earlier to live elsewhere. Mrs C was very upset and stated that he had left a great deal of general debt and that she could not cope. We referred her to the C.A.B at this point.

Peter Phoned again on 21st June 2012. Mrs C stated that the C.A.B. had been very helpful, that her general debts and costs were under control
She said 'I couldn't have coped without you, Help Direct, LESS and the C.A.B. are wonderful.'

Appendix 1: Resurvey form

Resurvey form Volunteer:.....Time spent on survey.....

Client name		Address			Client N°	Date
					ReSurv N°	
N° people in house	N° over 70	N° over 65	N° over 60	N° under 16	Changed? Yes No	

Have you installed any of the following in the last 12 months:
(tick all that apply and add depths)

Cavity wall insulation		Draught proof: Doors	
External wall insulation		Skirting boards	
EWI depth	cm	Floor	
Internal wall insulation		Chimney	
IWI depth	cm	Windows	
Loft insulation		Secondary glazing (%age)	
Loft insulation depth	cm	Double glazing (%age)	
Sloping ceiling insulation		New main space heating	Old New
SCI depth	cm	Main heating fuel	Old New
Floor insulation		New secondary space heating	Old New
Floor insulation depth	cm	New secondary heating fuel	Old New

Have you changed any of the following, or are they now adjusted?:

Thermostatic radiator valves		Installed any renewable:	PV
Hot water Jacket			Solar thermal
Hot water timer			Heat pump

N° of light bulbs		N° Reflective radiator panels	
N° low energy			
N° halogens?			
N° LED's			

Changed your car?	Old model	New model
-------------------	-----------	-----------

Have you changed anything else e.g. put up curtains,

Has your behaviour changed as a result of any of our energy advice?

Are you planning any more changes?

Is there anything you would like to do but can't?

If not why not?

(Barriers e.g. money, disruption etc.)

If any alterations were made, who did the work? How much did it cost? Would you recommend them?

Have you noticed any changes in your bills since the survey?

Do you feel you are struggling to pay your bills? Yes No

Are you spending more than 10% of income on bills? Yes No

Are you receiving any benefits? E.g. Pension credit, job seekers allowance, incapacity benefit etc

Would you consider giving out some leaflets to your friends and neighbours?

Yes

No

Would you consider becoming a volunteer with LESS?

Yes

No

What was your experience of the survey process?

Any suggestions as to what we could do to make it better?

We send you a newsletter every few months- Do you read it?

Yes

No

Is it useful?

What would you like to see in it?

Is there anything else you think the Home Energy Service should be doing to help you save money on your energy bills?

**OPTIONAL QUESTIONS.
CARBON FOOTPRINT**

If you want to make notes re the carbon footprint please use one of the earlier boxes or add an additional sheet.

Do these figures include business use? Y N

If so can they estimate this? Y N

Are they buying 100% Green Electricity? Y N

Electricity? percent
 Heating? percent
 Car? percent
 Train/bus? percent
 Plane? percent

Electricity	Off Peak	On Peak	Amount	Units	CO ₂ factor	CO ₂ Kgs	CO ₂ %
	(night)	(day)					
Totals	<input type="text"/>	<input type="text"/>	<input type="text"/>	kwh/year	x 0.55 'normal' =	<input type="text"/>	<input type="text"/>
					x zero 'green' =	<input type="text"/>	<input type="text"/>

Amount spent if other figures aren't available
 pounds

Mains Gas Total kwh/year x 0.19 =

pounds

Heating Oil	<input type="text"/>	litres	x 2.68 =	<input type="text"/>	<input type="text"/>
Heating Oil	<input type="text"/>	litres	x 2.68 =	<input type="text"/>	<input type="text"/>
Bulk LPG by the cu. M.	<input type="text"/>	litres	x 1.51 =	<input type="text"/>	<input type="text"/>
Propane (in red bottles)	<input type="text"/>	kg	x 1.96 =	<input type="text"/>	<input type="text"/>
Butane (in blue bottles)	<input type="text"/>	kg	x 1.75 =	<input type="text"/>	<input type="text"/>
Coal	<input type="text"/>	kg	x 2.42 =	<input type="text"/>	<input type="text"/>

pounds
 pounds
 pounds
 pounds
 pounds
 pounds

	Actual	+or- 20%		Car size		
Car Petrol	<input type="text"/> m	<input type="text"/> m	x 0.36 =	<input type="text"/>	<input type="text"/>	<input type="text"/>
Car-Diesel.....	<input type="text"/> m	<input type="text"/> m	x 0.26 =	<input type="text"/>	<input type="text"/>	<input type="text"/>
Car with 50% biodiesel*	<input type="text"/> m	<input type="text"/> m	x 0.16 =	<input type="text"/>	<input type="text"/>	<input type="text"/>
LPG Car	<input type="text"/> m	<input type="text"/> m	x 0.29 =	<input type="text"/>	<input type="text"/>	<input type="text"/>
Motorcycle*	<input type="text"/> m	<input type="text"/> m	x 0.18 =	<input type="text"/>	<input type="text"/>	<input type="text"/>

Train (return distance x no. travelling) m x 0.1 =

Bus (return distance x no. travelling) m x 0.15 =

*if doing th
deduct 20%
in actual m
and we'll v

For small car = mileage x 0.8
 For large car = mileage x 1.2

Plane (return distance x no. travelling)

Short Haul (europe)	<input type="text"/> m	x 0.78 =	<input type="text"/>	<input type="text"/>
Medium Haul	<input type="text"/> m	x 0.6 =	<input type="text"/>	<input type="text"/>
Long Haul (Far East, U.S.A.)	<input type="text"/> m	x 0.46 =	<input type="text"/>	<input type="text"/>

Slow Ferry.....	<input type="text"/> m	x 0.1 =	<input type="text"/>	<input type="text"/>
Fast Ferry.....	<input type="text"/> m	x 0.4 =	<input type="text"/>	<input type="text"/>
Cruise Ship.....	<input type="text"/> m	x 1.0 =	<input type="text"/>	<input type="text"/>

For office use	
Pers. kg	<input type="text"/>
Bus. Kg	<input type="text"/>

Total Co2 Kg

Divide total CO₂ by 100 to get 1% = Divide this figure into individual totals to find their % contribution to the total

Are any of these figures untypical
 i.e. do they usually fly or drive more or less
 if so please estimate typical amount.

Note: the carbon factors used for the calculation will be **the same** as those used in the original survey – please mark changes to the carbon factor on this form