Pilmeny Development Project

Climate Challenge Fund (CCF)

PROJECT H (EAT)
REPORT

Community Consultation/ Feasibility Study on Uptake of Energy Efficiency Measures with Older People & Carers in North East Edinburgh

4th December 2009

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Executive Summary

Older people and carers in North East Edinburgh had expressed concerns about their high energy use, lack of awareness of how to reduce their carbon footprint and avoid fuel poverty within their communities.

Pilmeny Development Project, NEECAG (Leith & Portobello) - older peoples forums, Changeworks and Care and Repair Edinburgh carried out a community consultation with over 75 older people (aged 50+) and their carers (including 'hard to reach', housebound, BME, physical disabilities and learning difficulties) to investigate the likely uptake of energy efficiency measures, promoted by a multi agency partnership. The initiative took place primarily in Leith and Portobello areas of Edinburgh.

The total estimated CO2 savings as a result of undertaking this project are 50.33 tCO2 which is more than double the target of 23.89 tonnes CO2 set out at the beginning of the project.

Older people and carers provided with energy diaries evidenced their gas and electricity use during the summer months. Fuel use through space heating is known to be much higher for houses which are occupied all day, and will not be reflected in this study.

Older people and carers who took part in the research and focus groups identified a number of key issues and concerns. 65% of respondents were worried about how much electricity and gas they use, but only 4% had ever contacted the Energy Saving Scotland advice centre.

Despite the fact that the research was undertaken largely through warmer weather, 29% respondents said their home is cold, damp or draughty and 48% older people and carers had concerns about being able to afford a fuel bill.

Nearly half (42%) of respondents consulted, did not know what they would do if they had a problem with their fuel and 60% could not name any organisations who could help. Respondents who were able to name organisations they could turn to for help, named local community organisations which they are already interacting with on other initiatives.

Respondents stated that face to face contact (17%), home visits (14%) and advocacy (13%) services might have helped them deal with past energy concerns.

The results of the study provide evidence for the development of a specialist ‘enabling’ initiative for older people in the community, to refer them to the Energy Assistance Package and support them in contacting the Energy Saving Scotland advice centre and fuel suppliers.

Introduction

Older people and carers in North East Edinburgh had expressed concerns about their high energy use, their lack of awareness of how they could reduce their carbon footprint and avoid fuel poverty within their communities.

Pilmeny Development Project (PDP), NEECAG (Leith & Portobello) - older peoples forums, Changeworks and Care and Repair Edinburgh[*] applied to Climate Challenge Fund to undertake a community consultation with older people (aged 50+) and their carers (including 'hard to reach', housebound, BME, physical disabilities and learning difficulties) to investigate the likely uptake of energy efficiency measures, promoted by a multi agency partnership. The initiative was to take place primarily in Leith and Portobello areas of Edinburgh and it was hoped the results of the study might provide evidence for the potential development of a larger initiative specifically targeted towards the needs of older people and carers in the community.

Aims & Objectives

Aim

To raise awareness amongst older people and carers in Leith, Portobello (NE Edinburgh) and increase their knowledge on how they can reduce their carbon footprint and address their concerns about fuel poverty

Objectives

- By undertaking a community consultation with 75 - 100 older people (aged 50+) and carers (including “hard to reach”, e.g. housebound, BME, those with physical disabilities and with learning difficulties) in Leith and NE Edinburgh, to investigate the likely uptake of energy efficiency measures

- By establishing a reference/advisory group of older people and relevant services providers.

- By organising and coordinating reference group, training (on carbon reduction and fuel poverty issues) and support of community co researchers, interpreting/translation (as required) and focus groups/feedback sessions with older people & carers.

- By training 5 community co researchers to undertake survey work.

- By developing exhibition materials and publicity appropriate to older people/carers (including those with visual impairments, BME)

[*] See Appendix 1 Partner Agency Information

- By undertaking 4 focus groups (10 older people/carers at each) and a feedback session for 50 local older people/carers and those who work with them

- By promoting the study and relevant services through a multi-agency partnership project (to include: PDP, NEECAG (older people's forums), Care & Repair Edinburgh and Changeworks)

- By producing a Research report using the results of the study to form the basis of and provide evidence for, the potential development of a larger project specifically targeted towards the needs of older people and carers in the community.

Background

Fuel consumption, Fuel Poverty and fuel billing issues: the impact on the elderly population.

The Climate Change (Scotland) Act 2009 introduces ambitious legislation to reduce Scotland's emissions by at least 80% by 2050. One of the main sources of emissions which need to be addressed is domestic fuel use. Almost 27% of the UK's emissions are caused by domestic use of gas and electricity and figures recently released by DECC (Department of Energy and Climate Change) indicate that this percentage rises to 33% of emissions for Edinburgh.[1]

According to the paper Greening the Greys- Climate Change and the over 50s by the Stockholm Environment Institute, the CO2 emissions from housing tends to increase as people get older. Carbon emissions from energy use in the home are 40% higher than the national average for individuals in the 75+ age groups. Individuals aged 65 – 74 have the second highest overall carbon footprint (12.10 tonnes) compared to other age groups with their home energy use 33% higher than the national average (4.13 tonnes CO2/year per capita). The baby boomers (aged 50 – 64) have the highest CO2 footprint of any age group emitting 13.52 tonnes of CO2 per capita each year, 1.5 to 2.5 tonnes more than any other age group.[2]

A combination of high fuel consumption and the often lower incomes of the 65+ age group, make them highly vulnerable to fuel poverty. Fuel poverty is defined as occurring when a household needs to spend more than 10% of its disposable income on domestic heating and electricity. Unfamiliarity with new systems such as call centres, complex fuel bills and controls for new heating systems adds to the problem, as does physiological issues such as hearing impairment. The 60+ age group struggle to negotiate with their suppliers or access services such as Energy Saving Scotland advice centre due to their reluctance to conduct business over the phone.

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[1] *Local and Regional CO2 Emissions Estimates for 2005-2007, by AEA for DECC –* http://www.decc.gov.uk/en/content/cms/statistics/climatechange/localco2/localco2.a.spx

[2] *Greening the Greys – Climate Change and the over 50's, Stockholm Environment Institute, University of York, February 2007*

Fuel poverty and fuel billing problems also exacerbate physical and mental health problems for this age group. Physically, they are particularly vulnerable to respiratory ailments and heart disease which can worsen from living in a cold or damp house. Mentally, they are more likely to suffer stress and anxiety over debt and fuel bills.

Study

Scope

The project sought to raise awareness and increase knowledge of older people and carers in Leith and Portobello (NE Edinburgh) on how they can reduce their carbon footprint and address their concerns around fuel poverty

Methods used

This was achieved by undertaking a community consultation with 75 - 100 older people (aged 50+) and carers (including "hard to reach", e.g. housebound, BME, those with physical disabilities and with learning difficulties) in Leith and NE Edinburgh, by establishing a reference/advisory group of older people and relevant services providers to guide the work, recruiting community co researchers to undertake survey work, recruiting older people to complete energy diaries/use energy monitors to look at their energy use and by carrying out a series of focus groups.

Community involvement in project

Local older people, carers and those who work with them in this area were involved from the outset and a small multi agency steering group, involving community representatives was established to develop the study and to oversee the work overall.

Monitoring and Evaluation

Formal and informal monitoring and evaluation was undertaken with users, carers, referrers and key partners. Specific monitoring and evaluation tools were developed, which utilised qualitative and quantitative methodologies and includes views and opinions of older people participating in the project. Indicators (process, impact and outcome) were developed within the LEAP[3] Monitoring and Evaluation Framework in line with the model.

See Appendix 2 for the Community Consultation table of SMART Outputs, Targets, Outcomes, Timescales and Milestones.

[3] LEAP (**L**earning, **E**valuation **a**nd **P**lanning) is a framework that helps community groups and projects, plan and evaluate work with partners and the community. The emphasis is on self-evaluation, encouraging participants (or stakeholders) to take joint responsibility for planning and evaluation throughout a project or programme.

Impact of Study

- Over 446 older people and carers participated in the overall project and related activities
- The total estimated CO2 savings as a result of undertaking this project are 50.33 tCO2 which is more than double the target of 23.89 tonnes CO2 set out at the beginning of the project.
- A multi agency reference group was established
- 5 community co researchers were recruited and undertook survey work
- 75 questionnaires were completed by older people and carers
- 5 older people completed Energy Diaries and 10 took energy monitors.
- 4 Focus Groups and interventions, involving 107 older people and carers (including 2 black and minority ethnic elders groups), were undertaken.
- Over 250 older people & carers were provided with Energy Assistance Package information, leaflets and light bulbs at the International Older People' Day event held in Meadowbank Stadium on 1st October 2009.

Community Consultation Questionnaires

Questionnaires were developed and piloted in conjunction with Changeworks (See Appendix 3). 5 local community co researchers (some of whom were older people themselves), were recruited, undertook some induction training and went on to do survey work with 75 older people and carers in the area.
The results from the 75 questionnaires completed are detailed in Appendix 4 and a summary of the findings are detailed below.

Findings/ Analysis

- The majority of respondents were older people and carers aged between 66 – 84 years old
- 34 (45%) were older people and carers from BME backgrounds
- Of those who answered 22 (29%) respondents said their home is cold, damp or draughty
- 28 respondents have loft insulation, 34 have draught proofing and 26 have cavity wall insulation. (Others were not sure or did not have any insulation installed)
- 54 report using gas and 57 report having electricity. Some of the respondents are likely to not have gas connections or gas central heating, but we are unable to determine how many.
- 65% of respondents were worried about how much electricity and gas they use, but only 4% had ever contacted the Energy Saving Scotland advice centre.
- 32 (42%) older people and carers say they do not know what they would do if they had a problem with their fuel and 45 (60%) didn't know who to turn to.

- Most of the 30 (40%) respondents who did name an organisation they would turn to for help, named trusted community organisations who they have face to face contact with (e.g. Care & Repair Edinburgh, Pilmeny Development Project)
- 36 (48%) respondents have had concerns about being able to afford to pay a fuel bill, 32 (42%) were concerned about fuel debt and 16 (21%) had experienced billing problems
- Of those respondents who had concerns re their fuel, only 20 had contacted their fuel supplier for help.
- 13 (17%) respondents stated face to face contact, 11 (14%) stated home visits and 10 (13%) stated advocacy services provided by organisation or suppliers giving energy advice might have helped them deal with past concerns.
- Older people gave a lot of suggestions on how a specialist service could be developed to help them access energy efficiency services. This included: provision of easy to access and helpful advice, clearer explanations (8), advocacy to talk to suppliers (10), advocacy that was confidential and friendly and provided continuity, face to face advice (13), home visits (11), translation and leaflets/tapes in minority languages and provision of energy conservative advice.
- 18 respondents said they would like help accessing grants or loans and 18 said they wanted help dealing with organisations on the phone and better information and explanations.
- 6 older people and carers said they would like *'*empowering coaching and coaching on basic fuel supply and fuel billing awareness'.

Projects impact on carbon / greenhouse gas reductions

The feasibility study sought to investigate the energy use of older people and their carers re how they can reduce their carbon footprint and the risk of fuel poverty.

CO_2 assumptions and calculations

As part of the community consultation, the community co researchers worked with Changeworks and the Energy Saving Scotland advice centre to provide all the focus groups with energy awareness advice. A trained energy advisor addressed each group with an introduction and explanation of the Energy Assistance Package. In addition all attendees of the focus group received a cloth bag with the advice centre phone number on it, an Energy Assistance Package leaflet and two energy efficient light bulbs with a leaflet on how to install them or how to contact Care and Repair for help in installing them. Information, Energy Assistance Package leaflets and light bulbs were also distributed at the International Day of Older People event at the Meadowbank Stadium held on 1st of October 2009.

CO2 savings

The target set out at the beginning of the project stated that 100 respondents would receive 2 CFL light bulbs each with a cumulative lifetime saving of 23.89 tonnes CO2.

107 older people and carers received energy advice and 214 CFL light bulbs with an estimated cumulative lifetime saving of 23.21[4] tCO2. Approximately 250 older people and carers attending the International Day of older people event received a CFL light bulb with an estimated cumulative lifetime saving of 27.12 tCO2[4].

Total estimated cumulative lifetime savings as a result of the project are 50.33 tCO2.

Energy monitoring data

The initial project proposal intended to help volunteers from the target community to monitor their electricity consumption with the help of 'current cost monitors' provided by Changeworks. These monitors are a form of Smart Meter which comes with a transmitter, enabling the display monitor to be placed at a suitable location in the house. However, due to problems documented in 'Challenges faced' section of this report, all volunteers struggled to utilize the monitors.

Volunteers were then asked to note meter readings and provided with printed energy diaries as a substitute. The diary enabled them to document their gas and electric meter readings, along with their use of certain common domestic appliances. Five volunteers in the 60+ age group completed energy diaries over a 3 week period.

Table 1 Average weekly use of energy and use of household appliances

Activity	**IW** 3 week average	**JL** 3 week average	**JC** 2 week average	**CQ** 3 week average	**SW** 3 week average
People in house	1	2	1	1	1.5[5]
Gas used (kWh)		4.66	2.66	3.6	13.33
Electricity used (kWh)	29.33	33.66	48.5	39.33	107.66
Cooker in minutes		179.33	411	310.33	295.33
Grill in minutes	69.66	128.66	12.5	40	109.66
Oven in minutes	364.99	100		353.33	165
Microwave	12	70.67		19.50	87.33
Number of washing loads	2.33	3.67	7	4.33	21.33
Tumble Dryer in minutes	66.67	51		13.33	
Dishwasher					
Kettle boiled Full	8.33	7	10.5	17	28.33
Kettle boiled Half	15	15.33	29.5	23.33	49.33
Hours TV left on	53.67	52.67	14.87	45.17	72.67
Hours TV left on standby	114.33	24		35.33	

The energy use recorded by four of the five volunteers appears to be much lower than the Scottish average of 79 kWh per week for a working couple and 59 kWh for

[4] Figures are based on the document 'Average UK savings for standard insulation measures, boiler replacements, some heating control upgrades, and replacement of old appliances with new Energy Saving Recommended ones of a similar size', prepared by the Knowledge Services Team, Energy Saving Trust, 24/06/2009. Yearly kgCO2 savings have been extrapolated by a life span of 10.85 years (Half the life span estimated in the document- due to an accompanying flyer advising the installation of the bulbs in frequently used fixtures) and divided by 1000 to get the estimated tonnes of CO2 saved in 10.85 years.

[5] 2 individuals were in the house an average of 4 days a week

a single person[6]. However it should be kept in mind that the Scottish average figures are based on a three bedroom house during the winter months. Even when the data is extrapolated over a year and adjusted for heating use (see table 2) the estimated combined (gas and electricity) annual CO2 emissions appear to be lower than the average annual Scottish household emissions from only electricity, 1693.62 kgCO2.[7] The reasons for this could include:

- The Scottish average data is based on a three bedroom house during the winter months and does not represent one or two bedroom homes during the summer.
- The extrapolation according to average consumption patterns cannot be applied to older people who spend most of the day and night at home and consequently have a heating period two or three times as long as the average household.
- Under use of energy by the householders due to fears of affordability and fuel debt.
- Information and communication technology and consumer electronics (entertainment gadgets) account for 34.2% of average household electricity use whereas for this target group the levels of ownership will be much lower than the national average.
- Since the study was conducted during the summer months, lighting use would have been minimal.

Table 2 Per capita energy use and CO2 emissions

Initials and people in the house	**Avg Electricity use /week /person (kWh)**	**Avg gas use /week /person (kWh)**	**kgCO2 from electricity[8] /person /week**	**kgCO2 from gas[8] /person /week**	**kgCO2 /person /week**	**Annual** *(52 weeks)* **kgCO2 without space heating**	**Total annual household kgCO2[9]**
IW (1)	29.33		8.74		8.74	454.50	841.66
JL (2)	16.83	2.33	5.02	0.43	5.44	283.04	524.15
JC (1)	47	2	14.006	0.37	14.37	747.40	1384.08
CQ (1)	39.33	3.66	11.72	0.67	12.39	644.40	1193.33
SW (1.5)	71.77	8.89	21.39	1.63	23.02	1197.03	2216.73

[6] University of Strathclyde, Energy Systems Research Unit (ESRU), http://www.esru.strath.ac.uk/EandE/Web_sites/01-02/RE_info/hec.htm , assuming 52 weeks in a year
[7] University of Strathclyde, Energy Systems Research Unit (ESRU), http://www.esru.strath.ac.uk/EandE/Web_sites/01-02/RE_info/C02.htm
[8] CO2 conversion values from Defra guidelines, last updated in September 2009. The (2007) grid rolling average for electricity is 0.29800. Natural gas emits 0.18358 kgCO2 per kWh (Gross CV)
[9] Volunteers reported not using their heating at all during the monitoring period. Therefore the total annual household kgCo2 has been calculated assuming the data collected accounts for 54% of the total household kgCO2 and heating would be 46% the total. Percentage distribution of fuel use is based on the document Energy Use and Carbon dioxide emissions in the UK, Knowledge Services Team, Energy Saving Trust, 23/09/08. These figures are rough estimations only and actual consumption can vary significantly.

Table 3 Estimated cost of energy per household and fuel poverty risk

Household and people present	Weekly average gas use (kWh)	Weekly average electricity use (kWh)	Cost of gas/ week* (£)	cost of electricity/ week* (£)	Total summer weekly fuel cost (£)	Avg weekly fuel cost with winter adjustment**	% of full basic state pension spent on fuel (weekly)
IW (1)	0	29.33	0.00	4.24	4.24	7.19	7.55 %
JL (2)	4.66	33.66	0.18	4.87	5.05	8.56	5.62 %***
JC (1)	2.66	48.5	0.10	7.01	7.11	12.05	12.67 %
CQ (1)	3.6	39.33	0.14	5.69	5.83	9.88	10.37 %
SW (1.5)	13.33	107.66	0.53	15.57	16.10	27.28	28.64 %

* Fuel costs calculated on average unit costs of credit tariffs in Edinburgh (Source: Quarterly Energy Prices, Department of Energy and Climate Change, September 2009)

**Volunteers reported not using their heating at all during the monitoring period. Therefore the average weekly household fuel cost has been calculated assuming the data collected accounts for 59% of the total household fuel use and heating would be 41% of the total. (Percentage assumptions taken from- Percentage distribution of fuel use is based on the document Energy Use and Carbon dioxide emissions in the UK, Knowledge Services Team, Energy Saving Trust, 23/09/08)

*** Full basic state pension calculated on a couple basis for JL

Based on the meter readings noted in the energy diaries, Table 3 estimates the weekly cost of fuel for the households in the summer time as well as the average weekly cost likely if space heating is included. When comparing the average weekly cost of energy for the households with the full basic state pension, it is estimated that three of the households, JC, CQ and SW are at a high risk of fuel poverty.

Conclusions of the monitoring exercise

- The sample group of volunteers represent 6% of the target number of older people and carers involved in the overall consultation
- Volunteers noted that heating accounts for most of their energy use, and that behaviour will not be reflected in this monitoring exercise. Table 2 attempts to predict this use but their heating regimes are likely to be two or three times the duration of national averages which has been used for extrapolation.
- If there is under use of electricity it may indicate anxiety about fuel bills.
- A similar diary keeping exercise, with the provision for noting other appliance and gadget use, conducted during the winter months would provide complimentary data and build on the study.

- Double or multiple occupancy does not always produce a lower per capita use compared to single occupancy households.

Challenges faced

Current Cost Monitors

A major challenge of this work was the problems with technology experienced by older people and carers. The initial project intended to help older people monitor their electricity consumption with the help of 'current cost monitors' provided by Changeworks. Older people were told 'These nifty little devices consist of a screen and a transmitter. The screen is around the size of an A5 photo frame. The transmitter has a clamp which goes around one of the cables that go into your electricity meter. It will not interfere with your meter in any way. The screen can be plugged in anywhere in your house and once it is activated will display the amount of electricity you are using. You can even watch the numbers change when you switch an appliance on or off. At the end of the 3 weeks we will collect the Diary and take a final meter reading. We would also welcome any feedback on your experience of this study.'

It was hoped the monitors would help older people to address the following issues:

- Electricity and gas use
- Cold, damp or draughty homes
- Problems older people face related to gas and electricity in the home

However, all the older people who volunteered to take part struggled to use the monitors. This was partly due to the complexity and time consuming nature of setting up and operating the monitors (some of which were faulty at the outset!), as well as poorly located meters which made it really difficult to attach lead to monitors.

One volunteer gave us some very helpful thoughts and detailed feed back on his experience in trying to use the monitor:

"The monitor appears to be reasonably accurate in terms of power consumption for 'resistive devices such as electric heaters and incandescent bulbs but overestimates the power taken by 'electronic' devices such as long life bulbs, TVs etc…. Looking at the power consumption of a whole house is interesting but can be very confusing. The instrument is not 'simple' to set up although the instructions seem to be correct as printed. It is intended to be set up once and then left switched on permanently in the one location. There have to be safety concerns about asking untrained people to place the transmitter 'sensor jaw' around one of the wires coming out of the electricity meter. That worries me!"

See appendix 7 for the full volunteer feedback.

Energy Diaries

Volunteers were then provided with printed energy diaries as a substitute. The diary enabled them to document their gas and electric meter readings, along with their use of certain common domestic appliances. Five volunteers in the over 60 age group

completed diaries over 3 weeks. However not all older people were comfortable with doing written work and felt unable to participate further.

Language Barriers

Throughout out the project, the challenges of providing services for BME elders were highlighted. In particular, the lack of energy specific information, forms, leaflets in any community languages (either written or in oral form) was a considerable difficulty and highlighted an inequity that should be addressed if the government and utilities companies are really trying to ensure the most difficult to reach communities are included.

Recommendations

1. Current Cost Energy Monitor are of great interest to older people but can be very confusing and complex to operate. There is a need for simple, easy to operate monitors to be developed for use by older people.

2. An Energy Diary keeping exercise, with the provision for noting other appliance and gadget use, would provide interesting complimentary data to this study and should be conducted during the winter months

3. All energy specific information, forms, leaflets should be available in community languages (either written and in oral form) to address inequities currently faced by BME elders.

4. To seek involvement of older people and carers in the development, monitoring (e.g. as 'mystery shoppers') and implementation of energy efficiency schemes such as EAP to ensure they are accessible to 'hard to reach' groups.

5. The Research report should use the results of the study to form the basis of and provide evidence for the development of a specialist initiative specifically targeted towards the needs of older people and carers in the community to address their Climate Challenge and Energy Efficiency issues.

6. The Research report should be an example of good practice in how to engage older people/carer in future Reduction of Carbon Emissions initiatives

Conclusion

Over 446 older people and carers in North East Edinburgh have, through their involvement with this invaluable initiative, an increased knowledge and awareness about their high energy use and how they can reduce their carbon footprint and avoid fuel poverty within their community. The work and the publication of this report will ensure the improved awareness of key Health, Social Care and voluntary sector service providers in NE Edinburgh of older people and carer concerns around carbon footprint reduction and fuel poverty. There are six key recommendations

resulting from the Community Consultation work itself and ways now need to be found to ensure they are fully implemented.

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Appendices

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Appendix 1 Partner Agency information

Pilmeny Development Project
Pilmeny Development Project (PDP) is a locally run Community Development project which has operated in the Leith area since 1979. PDP primarily works with Older People, Young People and Adults. PDP has a proven track record of working with inequalities groups of older people including black and minority ethnic elders (BME), Lesbian, Gay, Bisexual and Transgender (LGBT), older people with dementia and those with mental health needs. PDP has also carried out local research/feasibility studies and has extensive experience in developing intergenerational initiatives. PDP Key activities with older people include: provision of direct and indirect services, support/development of a range of 50+ activities, clubs and services for local older people (e.g. older people's weekly 'drop in' group , 2 older peoples forums (NEECAG Leith & Portobello), day care for housebound/frail older people and those with dementia, specialist services for minority ethnic older people and carers, older people with learning disabilities, care home residents, development of North East Edinburgh Ageing Well (peer mentoring project), N. E. Edinburgh Older Men's Mental Health & Wellbeing Project as well as intergenerational work.

NEECAG Leith & Portobello - Older Peoples Forums

North East Edinburgh Care Action Group (NEECAG) - Leith & Portobello older people's forums were formed in 1995. The main purpose is to give older people, carers and those who work with them, the opportunity to discuss Health and Community Care issues in a more organised way to make their views known to relevant bodies. Aim: To improve services for older people in Leith area through increased consultation and involvement of older people and their carers.
Objectives: To enable older people in Leith to gain information on Community Care and other services for older people and to raise issues and concerns with relevant professional bodies, as well as helping older people to gain access to services by giving help, advice and encouragement. To establish a means of making regular contributions to service planners and providers

Changeworks
Changeworks is an environmental charity which exists to improve quality of life and to protect the environment. We deliver innovative projects and services to cut carbon, prevent waste, promote sustainable energy and transport and support people at risk of fuel poverty. Changeworks hosts the Energy Saving Scotland advice centres for the South East and the Highlands and Islands. The Energy Saving Scotland advice centres provide free and impartial energy efficiency advice to businesses, householders and communities. Other Changeworks projects cover a wide range of themes from general energy efficiency, affordable warmth and microgeneration for listed buildings to community waste prevention schemes, business recycling services and waste and energy information services.

Care and Repair Edinburgh
Care and Repair Edinburgh, Ltd is an independent charity, which assists older people and people with disabilities, with house repairs, improvements and adaptations, enabling them to remain in their own homes in more comfort, security and independence. We run a number of services to assist the elderly and disabled, from carrying out small repairs and improvements. Our Handyperson service, which is carried out by volunteers can assist with small tasks like fitting lightbulbs and hanging curtains. We also provide a Project Management service to help clients with improvements such as bathroom adaptations, and assist with helping to find finance for such improvements; a Home from Hospital Service which helps with small adaptations and fitting keysafes where requited as part of the Care

package, and we provide a Trades Referral Service which we can give you the name of a reliable tradesperson who can carry out work to your home.

Appendix 2

Community Consultation on uptake of Energy Efficiency measures with (50+) Older people and Carers in Leith and NE Edinburgh 2009

Outputs	Target Area	Target Group	Outcomes	Indicator	Indicator Target & Milestones
1. Community Consultation By undertaking a community consultation with 75 - 100 older people (aged 50+) and carers (including "hard to reach", e.g. housebound, BME, those with physical disabilities and with learning difficulties) in Leith and NE Edinburgh, to investigate the likely uptake of energy efficiency measures (April – July 2009) **2. Reference/Advisory group** By establishing a reference/advisory group of older people and relevant service providers. (3 sessions to be held beginning(April 09), middle (June09) and end of consultation (July 09)) **3.** By organising, and coordinating reference group, training and support of community co researchers, interpreting/translation (as required) and focus groups/feedback sessions with older people & carers – 2 sessional workers (20 hours) (April - July 09)	North East Edinburgh primarily within Leith and Portobello	75-100 (50 older people /carers within Leith, Portobello and NE Edinburgh This will include older people who maybe, on low incomes, or who may be deemed Socially isolated. It will also target Black & Minority Ethnic (BME) older people and those with physical disabilities or learning difficulties.	Increased knowledge and awareness of older people/ carers' in Leith, Portobello (NE Edinburgh) on how they can reduce their carbon footprint and address their concerns around fuel poverty. Improved awareness of key service providers (Health, Social Care and voluntary sector) in NE Edinburgh of older people/carer issues and concerns around carbon footprint reduction and fuel poverty.	1. Number of older people participating in the Consultation process 2. Records kept on range of older people included in process (e.g. BME, physical disabilities etc) 3. Reference/ advisory group established and actively involved in process. Minutes/records kept.	1. 75 - 100 older people (aged 50+) and carers participate by July 09 2. "hard to reach", (e.g. housebound, BME, those with physical disabilities and with learning difficulties participate) between April – July 09 3.Reference/ Advisory group established and meet 3 times(April June and July 09)

Community Consultation on uptake of Energy Efficiency measures with (50+) Older people and Carers in Leith and NE Edinburgh 2009

Outputs	Target Area	Target Group	Outcomes	Indicator	Indicator Target & Milestones
4. By training 5 community co researchers to undertake survey work. (15 hours x 5 = 75 hours) – to undertake and complete at least 15 questionnaires each = 75 respondents (April-July 09) 5. By developing exhibition materials and publicity appropriate to older people/carers (including those with visual impairments, BME etc) (April – June 09) 6. By undertaking 4 focus groups (10 older people/carers at each) (April –June 09) and a feedback session for 50 local older people/carers and those who work with them (July/August 09) 7. By promoting the study and relevant services through a multi-agency partnership project (to include: PDP, NEECAG (older people's forums), Care & Repair Edinburgh and Changeworks) (April – July09) 8. By undertaking assessment of demand for energy advice services aimed at older people and their carers and production of a research report. (July /Aug 09)	North East Edinburgh primarily within Leith and Portobello	75-100 (50 older people /carers within Leith, Portobello and NE Edinburgh This will include older people who maybe, on low incomes, or who may be deemed socially isolated. It will also target Black & Minority Ethnic (BME)older people and those with physical disabilities or learning difficulties.	Increased knowledge and awareness of older people/ carers' in Leith, Portobello (NE Edinburgh) on how they can reduce their carbon footprint and address their concerns around fuel poverty. Improved awareness of key service providers (Health, Social Care and voluntary sector) in NE Edinburgh of older people/carer issues and concerns around carbon footprint reduction and fuel poverty.	4. Sessional support workers and community co researchers engaged in research process. 5. Relevant Publicity and Exhibition materials (Carbon emission reduction and fuel poverty) available 6. No of Focus groups, feedback session and no of older people participating. Participant evaluations undertaken. 7/8. Research report produced, disseminated and promoted	4.Sessional staff undertake training (April 09) and research work by July 09 5. Exhibition materials and publicity (April – June 09) 6. 4 focus groups (10 older people/carers at each) (April – June 09) and a feedback session for 50 local older people/carers and those who work with them (July/August 09) 7/8. Report production/dissem ination (July/August09)

Appendix 3

Pilmeny Development Project

PROJECT H(EAT) RESEARCH QUESTIONNAIRE

1. Household information

a. House type — Tenure o/o ☐ Council ☐ Private ☐
H/A Tenant ☐ Other ☐

b. Age group — 50 – 65 years ☐ 66 – 84 years ☐ 85+years ☐

c. Gender — Male ☐ Female ☐

d. Ethnicity

……...

e. Address

……..

f. Post Code ……..

g. Tel no …….

2. Current awareness level

a, Is your home cold, damp or draughty? Yes ☐ No ☐

Do you have already in your house

b. loft insulation Yes ☐ No ☐

c. draughtproofing Yes ☐ No ☐

d. cavity wall insulation? Yes ☐ No ☐

e What fuel types do you use in the house- gas, ☐ electricity, ☐ solid fuel ☐

f. Who is you supplier for (a) Gas ……. (b) Electricity……

g. How often do you receive a bill?

……

h. What would you do if you had a problem with your fuel supply or fuel bill?

……

……

.

i. Can you name any organisations, which can help you if you are experiencing problems with your fuel supply or fuel bills? Yes ☐ No ☐

(if yes which ones)

……..

3. (Areas of concern)

What concerns have you experienced with your fuel?

a. Being able to afford to pay a fuel bill Yes ☐ No ☐

h. How much electricity or gas I am using Yes ☐ No ☐

i. Fuel debt: owing money to the fuel supplier Yes ☐ No ☐

j. Billing problems: bills addressed to other people, or the wrong addresses on the bill Yes ☐ No ☐

k. Other (please state)……...

……

4. (Available support)

Have you ever done anything to address your concerns?

a. Contacted your fuel supplier YES ☐ NO ☐

b. Contacted another fuel supplier YES ☐ NO ☐

c. Contacted citizens advice YES ☐ NO ☐

d. Contacted an organisation which provides energy advice YES ☐ NO ☐

e. Contacted an Energy Saving Scotland Advice Centre YES ☐ NO ☐

f. Other (please state)

……...

……

If you have not tried anything to address your concerns, <u>please tell us why</u> (and then go to Question 9)

……...……

……...……

5. (Gaps/ inadequacies in the support available)

What was the <u>outcome</u> of any of the actions taken in Q4? <u>(Ensure the original problem has been noted in Q3</u>)

a. The problem was resolved YES ☐ NO ☐

b. The problem was made more manageable YES ☐ NO ☐

(e.g. An affordable debt repayment plan was agreed) YES ☐ NO ☐

c. You fully understood the problem and what you need to do to resolve it YES ☐ NO ☐

d. Unsatisfactory progress was made YES ☐ NO ☐

e. No progress was made YES ☐ NO ☐

f. Other (please state)

…….

6. If no or unsatisfactory progress was made, what were the main stumbling blocks:

a. Did not understand what needed to be done YES ☐ NO ☐

b. Thought the next move was up to the (external) organisation YES ☐ NO ☐

c. Did not trust the advice/information I was given YES ☐ NO ☐

d. Did not have the funds to follow through YES ☐ NO ☐

e. Progress was stopped by external factors YES ☐ NO ☐

f. (eg, landlord refused permission)

g. Did not want strangers in the house YES ☐ NO ☐

h. Other (please state)

……..

7. (Additional support needed)

If progress was dependant on an external organisation, what could they have done to help move things forward?

a. Offered me the chance to talk to someone face to face YES ☐ NO ☐

b. Visited me at home YES ☐ NO ☐

c. Provided advocacy: offered to talk to the supplier on my behalf YES ☐ NO ☐

d. Provided clearer explanations YES ☐ NO ☐

e. Shown more understanding/sympathy YES ☐ NO ☐

f. Other:

8. If progress was dependant on you taking action, what could have helped you move things forward, and what services would you have opted for?

a. A follow-up reminder YES ☐ NO ☐

b. Help accessing grants YES ☐ NO ☐

c. Help accessing low cost loans YES ☐ NO ☐

d. Help with dealing with organisations on the phone YES ☐ NO ☐

e. Better information and explanations YES ☐ NO ☐

f. Empowering coaching: Coaching on basic fuel supply and fuel billing awareness YES ☐ NO ☐

9. We are hoping to develop a service to provide advice and support in using and paying for fuel. The service will be specifically aimed at people over 60 years old and in some cases over 50 years of age. In an ideal world, what would you like this service to look like?

……

10. Would you like any further information/support? YES ☐ NO ☐

If yes how would you like to be contacted?

……...

11. Any other information

……

……

……

For Further information contact:

Anne Munro, Pilmeny Development Project 19-21 Buchanan St, Edinburgh EH6 8SQ Tel: 553 2559

Appendix 4

CHANGEWORKS
RESOURCES FOR LIFE

CARE & REPAIR EDINBURGH
encouraging independence

Pilmeny Development Project

PROJECT H(EAT) RESEARCH QUESTIONNAIRE
Summary Results
Total = 75

2. Household information

a.	House type	Tenure o/o	16	Council	7	Private	37
		H/A Tenant	10	Other	5		
b.	Age group	50 – 65 years	21	66 – 84 years	47	85+years	7
c.	Gender	Male	19	Female	56		

d.	Ethnicity	White Scottish	24	British	11	Pakistani	21
		Bangladeshi	2	Indian	6	Muslim	3
		Irish	1	Asian	1	No info re ethnicity	6

e.	Post Code	EH2	2	EH3	1	EH4	3	EH5	3	EH6	20
		EH7	18	EH8	5	EH10	1	EH13	2	EH14	2
		EH15	13	EH16	3	EH21	1	EH32	1		

2. Current awareness level

a,	Is your home cold, damp or draughty?	Yes	22	No	40		
		No answer	13				

Do you have already in your house

b.	loft insulation	Yes	28	No	28	No Answer	19
c.	draught-proofing	Yes	34	No	29	No Answer	12
d.	cavity wall insulation?	Yes	26	No	29	No Answer	20
e	What fuel types do you use in the house-	Gas	54	Electricity	57		
f.	Who is you supplier for:						

GAS:	Scottish Gas	31	British Gas	4	Scottish Hydro	5
	Scottish Power	11	Atlantic	1	Staywarm	2
	E-On	2	National Power	1		
ELEC	Scottish Gas	4	British Gas	1	Scottish Hydro	3
	N Power	2	Atlantic	1	No answer	3
	Staywarm	1	Scottish Power	7		

g How often do you receive a bill?

Quarterly	43	Monthly	7	2monthly	1	
Direct Debit	8	½ yearly	2	Yearly	2	Don't know 2

h What would you do if you had a problem with your fuel supply or fuel bill?

Don't know	32
Phone Supplier	18
Family Help	10
seek professional help	4
Change Supplier	3
Nothing	2
Own action	2
CAB	1
Send correct meter reading	1
Assistance from Home Help	1
Care & Repair	1

i. Can you name any organisations, which can help you if you are experiencing problems with your fuel supply or fuel bills? Yes 30 No 45

(if yes which ones) Milan	19
Age Concern	3
Energy Supplier	2
CAB	2
Pilmeny Development Project	1
Care and Repair	1
Scottish Gov/Civil Service	1
Council Advocacy Service	1

3. (Areas of concern)

What concerns have you experienced with your fuel?

a.	Being able to afford to pay a fuel bill	Yes	36	No	39
b	How much electricity or gas I am using	Yes	49	No	26
c.	Fuel debt: owing money to the fuel supplier	Yes	32	No	43
d.	Billing problems: bills addressed to other people, or the wrong addresses on the bill	Yes	16	No	59

e. *'no one reads meter therefore bills are incorrect'* 1
'*Can't afford to pay bills'* 1
'*Meter should be positioned at eye level'* 1

4. **(Available support)** Have you ever done anything to address your concerns?

g.	Contacted your fuel supplier	YES	20	NO	55
h.	Contacted another fuel supplier	YES	5	NO	61
i.	Contacted citizens advice	YES	4	NO	70
j.	Contacted an organisation which provides energy advice	YES	4	NO	70
k.	Contacted an Energy Saving Scotland Advice Centre	YES	3	NO	72

l. Other (please state)

Contacted Milan 9
Supplier-never had reading 1
Fuel Agent Visit 1

If you have not tried anything to address your concerns, <u>please tell us why</u>

Did not know help available 7
Don't understand who is in my best interest 1
No one will supply electricity for storage white meter 1
New combo boiler so under guarantee 1
Pass to daughter 1
Total 11

5. (Gaps/ inadequacies in the support available)

What was the <u>outcome</u> of any of the actions taken in Q4?

<u>(Ensure the original problem has been noted in Q3</u>)

g.	The problem was resolved	YES	14	NO	3
h.	The problem was made more manageable	YES	5	NO	3
	(e.g. An affordable debt repayment plan was agreed)	YES	0	NO	3
i.	You fully understood the problem and what you need to do to resolve it	YES	4	NO	3
j.	Unsatisfactory progress was made	YES	6	NO	7
k.	No progress was made	YES	2	NO	5

l. Other (please state)

‘*Home Help reads meter therefore bills are accurate’* 1

‘I*nformation about different fuel prices’* 2

‘*Pensions check*’ 1

‘*2 years to sort out!’t* 1

7. If no or unsatisfactory progress was made, what were the main stumbling blocks:

i.	Did not understand what needed to be done	YES	4	NO	3
j.	Thought the next move was up to the (external) organisation	YES	4	NO	1
k.	Did not trust the advice/information I was given	YES	2	NO	4
l.	Did not have the funds to follow through	YES	1	NO	3
m.	Progress was stopped by external factors	YES	1	NO	2
n.	(eg, landlord refused permission)				
o.	Did not want strangers in the house	YES	0	NO	4
p.	Other (please state)				

‘Ran out of patience’ 1

7. (Additional support needed)

If progress was dependant on an external organisation, what could they have done to help move things forward?

g.	Offered me the chance to talk to someone face to face	YES	13	NO	2
h.	Visited me at home	YES	11	NO	3
i.	Provided advocacy: offered to talk to the supplier on my behalf	YES	10	NO	5
j.	Provided clearer explanations	YES	8	NO	4
k.	Shown more understanding/sympathy	YES	12	NO	5
l.	Other: *‘No further action taken’*				

8. If progress was dependant on you taking action, what could have helped you move things forward, and what services would you have opted for?

g.	A follow-up reminder	YES	11	NO	1
h.	Help accessing grants	YES	11	NO	2
i.	Help accessing low cost loans	YES	7	NO	4
j.	Help with dealing with organisations on the phone	YES	8	NO	2
k.	Better information and explanations	YES	8	NO	1
l.	Empowering coaching: Coaching on basic fuel supply and fuel billing awareness	YES	6	NO	3

9. We are hoping to develop a service to provide advice and support in using and paying for fuel. The service will be specifically aimed at people over 60 years old and in some cases over 50 years of age. In an ideal world, what would you like this service to look like?

Face to Face advice	4
Home Visits re problems and translation and leaflets in minority languages and employment of minority ethnic staff	6
Leaflets/tapes in Urdu/Punjabi	8
Funding to alleviate problems re damp	1
Abandon use of jargon	1
Energy conservative advice	1
Provision of simple service with continuity of adviser	2
Much more explicit fuel bills as proposed in the media	1
Translator/Bilingual Worker	4
Worker who is able to understand problems	1
Funding for Milan	2
Home Visits	3
Free heating installation and help with paying bills	1
Easy access to fuel company	1
Clear language in bills	2
NEECAG Meeting	1
Real help with problems	1
Concerns not problematic	1
Easy to access, helpful advice, informative form of advocacy that was comfortable and confidential and friendly	2
Easy to use	1
Be able to phone someone for simple advice	1

10. Would you like any further information/support? YES 32 NO 24

If yes how would you like to be contacted?

Via Milan	16	Contact at home	4	Letter	3	Home Visit	3
Phone call at home (in own language where necessary)	3	Leaflet	1				
No information re mode of contact	1	Via family	1				
Information re paying bills	1	Translator	2				

11. Any other information

Questionnaire too complicated 11

Staywarm (now owned by E-on) was originally set up by TXU Europe for the Elderly. Costs

are based on the number of occupants and number of bedrooms in a house and not on energy used (although meters are read at least once a year). This can be a good deal for a single occupant with one bedroom. Unfortunately I think E-on want rid of this scheme. Price increases are always reflected when the annual adjustment is made but never price reductions. Maybe other Power Companies should be encouraged to adopt such a scheme.

Appendix 6

Your new energy saving lightbulbs

You now have 2 energy saving lightbulbs for your home!

Tips to install your lightbulbs:

1. For the highest savings use the lightbulbs in light fixtures you use often. This could be in the living room, a light left on through the night or a security light left on when you're away.

2. These bulbs last longer than regular light bulbs, so it might be handy to put them in fixtures that are hard to reach.

3. Follow safety precautions and do not try to install the lightbulbs if you find it difficult. **Call Care and Repair and request assistance.**

4. Energy saving light bulbs cannot be used in fixtures that have a dimmer switch.

5. If you have poor eyesight, you may find the light emitted by an energy saving light bulb isn't suitable for some purposes. If so, use the bulb in places that do not need bright lighting, such as a hallway.

Each bulb will save you £3 a year and is designed to last 10 years or more.

If everyone in the UK switched all remaining traditional light bulbs to energy saving ones, the electricity saved in one year would run the UK's street lighting for 5+ years!

For help with installing your lightbulbs
call Care & Repair on: 220 7630

Pilmeny Development Project

PROJECT H(EAT)!

Many older people are very concerned about their fuel bills, to the extent that they feel compelled to cut down on spending on food. A new project to investigate these issues is being promoted through a multi agency partnership including Pilmeny Development Project, Care and Repair Edinburgh and Changeworks, (funded by a grant from the Scottish Government's Climate Challenge Fund).

This project aims to raise knowledge and awareness among older people and carers about energy efficiency, keeping their fuel bills down, and reducing their carbon footprint. A consultation is being undertaken in the North East Edinburgh to investigate the prevalence of fuel poverty and the likely take up of energy efficiency measures among older people & carers (including "hard to reach", housebound, BME, people with physical disabilities and learning difficulties). The results of the study may provide evidence for the potential development of a larger initiative specifically targeted towards the needs of older people and carers in the community.

For further information contact:

Anne Munro – Pilmeny Development Project **Tel: 0131 553 2559**

Prithika Nair – Changeworks **Tel: 0131 538 7957**

Jan Souter – Care and Repair Edinburgh **Tel: 0131 220 7630**

Other Useful Information/Contacts

- Social Care Direct - (City of Edinburgh Council Health & Social Care) Tel: 0131 200 2324
- Pension Service: 0845 606 0265
- NHS 24: 08454 242424
- Scottish helpline for Older People: 0845 125 9732

Appendix 7

Complete feedback on Current Cost Monitor

'Current Cost Energy Monitor
I have done some tests on the energy monitor

Summary
The monitor appears to be reasonably accurate in terms of power consumption for 'resistive devices such as electric heaters and incandescent bulbs but overestimates the power taken by 'electronic' devices such as long life bulbs, TVs etc…. Looking at the power consumption of a whole house is interesting but can be very confusing.
The instrument is not 'simple' to set up although the instructions seem to be correct as printed. It is intended to be set up once and then left switched on permanently in the one location. There have to be safety concerns about asking untrained people to place the transmitter 'sensor jaw' around one of the wires coming out of the electricity meter. That worries me!

Test of accuracy

Energy Usage
I checked the accuracy of the monitor in terms of the energy displayed as against the real energy used which I determined by measuring the current through and the voltage across various test loads. In all cases the supply voltage was about 240V which is fairly normal in the UK.
60W incandescent bulb – monitor indicated 59W and I measured 62W (but see below)
1KW electric fire – monitor indicated 1.08KW and I measured 1.06KW
2KW electric fire - monitor indicated 2.23KW and I measured 2.10KW
Small fan heater - monitor indicated 253W and I measured 275W

These are all acceptable in my view. However, when I was measuring a fairly low wattage like the 60W bulb it gave readings for that bulb of 52W to 63W on different occasions. This is probably because the resolution of the monitor is about 5W to 10W. The other problem area is when you try to measure something which is not a simple resistive load (such as an incandescent bulb or heater). For example, I measured 2 long life bulbs – a Philips 14W indicated 31W and a Philips 18W indicated 52W, both of which are much more than the true energy consumption. Measuring the standby current on a modern TV, DVD player, computer, etc. would often give similarly misleading results, probably suggesting a higher than true standby or operating current in most cases.

Temperature
I didn't have a very good 'standard' thermometer available but against my usual test thermometer the monitor I tested was reading low by about 1 degree C to 2 degree C. This is probably within expected limits.

Instrument Operation
I did not have any problems setting up the instrument, apart from finding a suitable wire to clip round at the electricity meter. Our meter is quite well boxed in with wood and I expect that may be a common problem. It makes very little difference which one of the four

meter wires is used. Unfortunately, the clock 'freezes' when you power down the display so users will have to know how to set it if they want the clock related information. If they are simply checking how much power a kettle, or whatever takes, then the clock is not required. The display retains information about costs per unit so that could certainly be set up beforehand from the information on an electricity bill.

Would I want to have one?

With the unit connected to our electricity meter, the power level is always changing as things are switching on and off and this is very confusing. Even if you turn off everything, except one particular item such as (for example) the washing machine, you still get lots of very different readings depending on whether the motor is running, the water is being heated, water is being drained from the machine or it is simply waiting for a few minutes to let clothes soak. These readings for a given washing machine during a wash can vary from effectively zero to about 3KW. Watching the changes in monitor readings for a normal complete house with several people living in it is quite interesting (even mesmerising!) and often worrying as you try to decide who or what caused it to jump from a steady 0.5KW to 3KW..'

Appendix 8

References

The Climate Change (Scotland) Act 2009

DECC (Department of Energy and Climate Change) *(Local and Regional CO2 Emissions Estimates for 2005-2007, by AEA for DECC –* http://www.decc.gov.uk/en/content/cms/statistics/climatechange/localco2/localco2.aspx

Greening the Greys – Climate Change and the over 50's, Stockholm Environment Institute, University of York, February 2007
'Average UK savings for standard insulation measures, boiler replacements, some heating control upgrades, and replacement of old appliances with new Energy Saving Recommended ones of a similar size' - Knowledge Services Team, Energy Saving Trust, 24/06/2009.