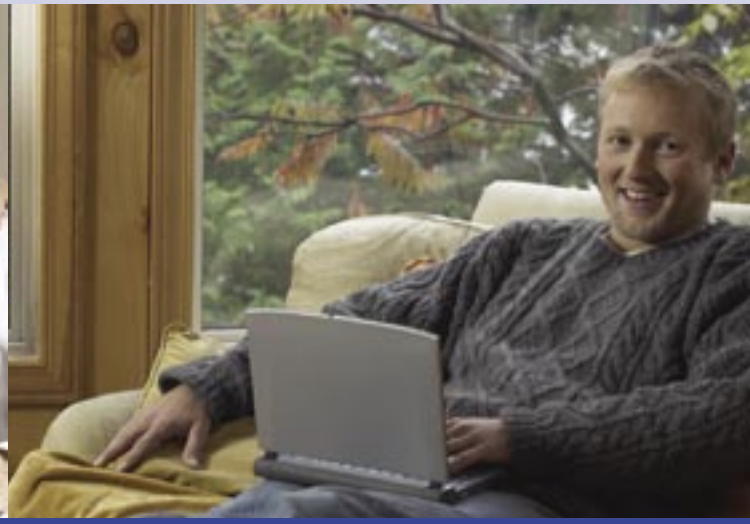




Energy conscious behaviour saves money

Average annual savings made by each household following advice:
£58 off fuel bills; 1,971 kWh energy saved; emissions reduced by 494 kgs CO_2

ENERGY EFFICIENCY
SAVE ENERGY MONEY ENVIRONMENT

Energy
Efficiency
Partnership
for Homes

Domestic energy advice – **the facts**

The Energy Advice Providers Group (EAPG) of the Energy Efficiency Partnership for Homes brings together representatives from energy advice centres, energy suppliers, local authorities and other significant providers of domestic energy efficiency advice. Its mission is to improve the effectiveness and scope of advice to consumers on domestic energy efficiency.

The EAPG defines domestic energy advice as that which is specific to individuals and their circumstances and aims to improve energy efficiency and achieve affordable warmth. Such advice may include recommendations on energy saving measures to install, or tips on changing behaviour in order to save energy, but it does not usually include leaflets alone and general information. This leaflet explores the savings arising from following advice on changing behaviour in order to save energy.

A number of studies over the past few years have explored the effects of giving advice to domestic consumers. In late 2001 the EAPG commissioned the research companies New Perspectives and BMRB International to conduct the first major study to evaluate differences in the effects of advice delivered in various ways by a variety of advice providers.

The research aimed to:

- evaluate the overall impact of advice and the relative effectiveness of different methods of delivering advice;
- determine what actions result from advice and identify the benefits of following that advice.

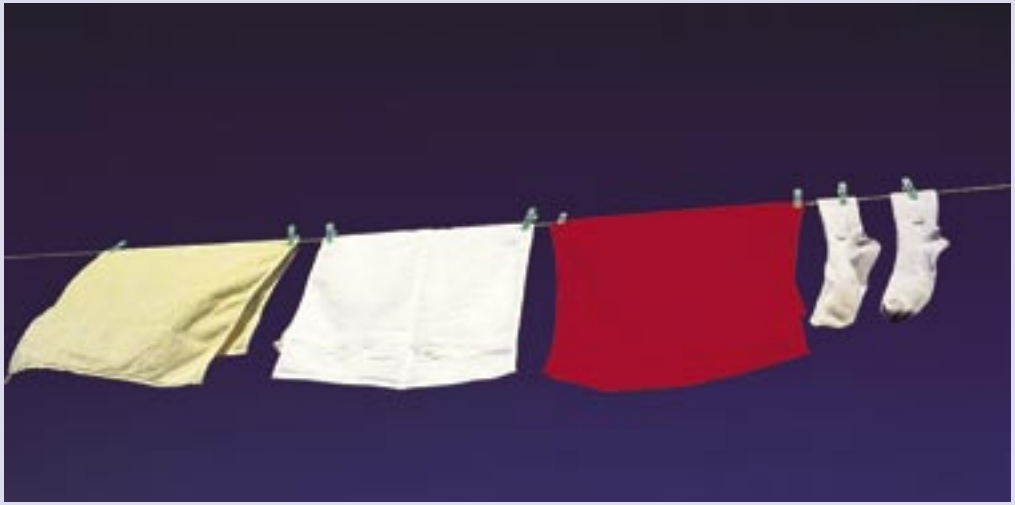
The study (which was based on 1,900 interviews with people who had received energy advice 9-15 months earlier from a wide variety of sources) was completed in February, 2002. The Energy Efficiency Partnership for Homes published the main report *Benefits of Energy Advice* in March 2002, and later an A4 leaflet – *Energy Advice – A Good Investment* – which included these main findings:

- energy advice works – 70% of those advised to install some measures do so, and 75% of those advised about energy saving behaviour follow some of that advice.
- following advice brings real benefits: 63% achieved warmer and more comfortable homes; 63% reported fewer draughts, less condensation or less damp and mould; 34% reported lower fuel bills; and 23% reported health improvements.
- written reports and combinations of written and verbal advice (face-to-face or on the phone) are the more effective means of communicating advice about measures to install and the availability of grants.
- verbal advice (at home or over the phone) is more effective at encouraging behavioural changes, and reports and leaflets on their own are less effective.
- client-led advice is followed more often than opportunistic advice, although opportunistic advice is still well-worth providing as 63% of recipients do follow some of it.

This leaflet now summarises the second stage of this research programme which was completed in 2004 by New Perspectives – estimation of the savings likely to be achieved by people from the 2002 Survey who;

i) received advice on behavioural changes and

ii) adopted more energy conscious behaviour.



How the savings were calculated

Estimates of the energy savings likely to arise from each change in behaviour were agreed between Energy Inform, New Perspectives and the Energy Saving Trust, based on the latest research and published findings from earlier studies. The estimated savings for each action (£, kWh and CO_2 emissions) were then applied to the households making each change in behaviour to provide estimates of the average savings achieved by each household receiving and following each type of behavioural advice:

1. Advice on cooking, use of cold appliances (e.g. refrigerators), laundry appliances, and not leaving appliances on stand-by.

2. Advice on the control and use of heating and hot water (HW) systems.

3. Advice on the control of lighting and the use of low energy bulbs.

4. Other tips on the use of blinds and curtains, internal doors, sealing gaps in floorboards and blocking unused chimneys.

Savings from behavioural changes in cooking and use of appliances

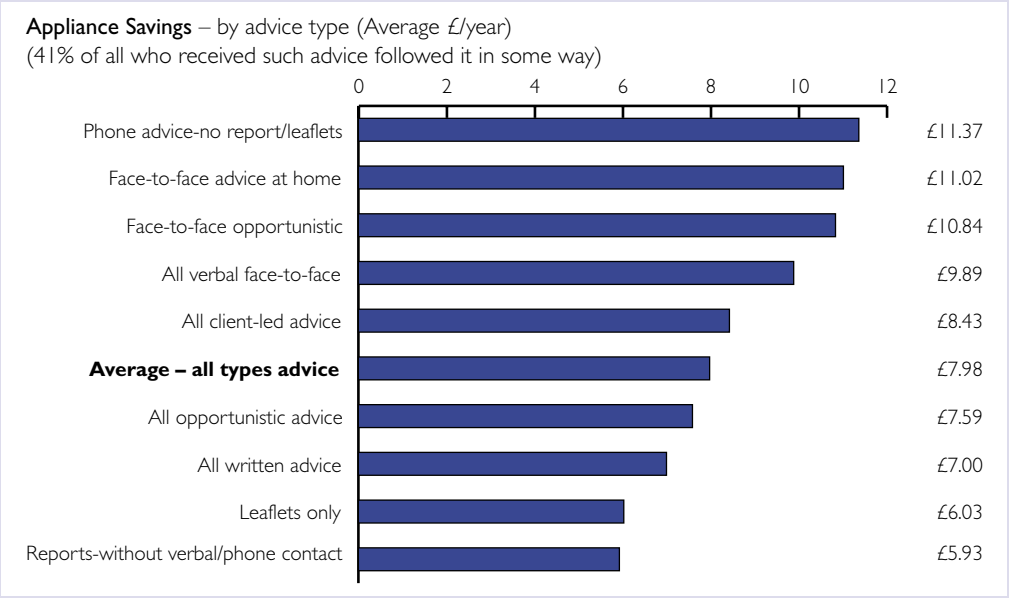
45% of our survey households recalled receiving such advice and 41% of these adopted around 4 or 5 energy conscious strategies such as only putting as much water in the kettles as they needed, putting lids on saucepans, adjusting their fridge, washing clothes at lower temperatures, using the clothes line not the tumble drier and not leaving appliances on standby. Average annual savings among all who received such advice should be around £8, and among those who followed such advice the savings could be £19.

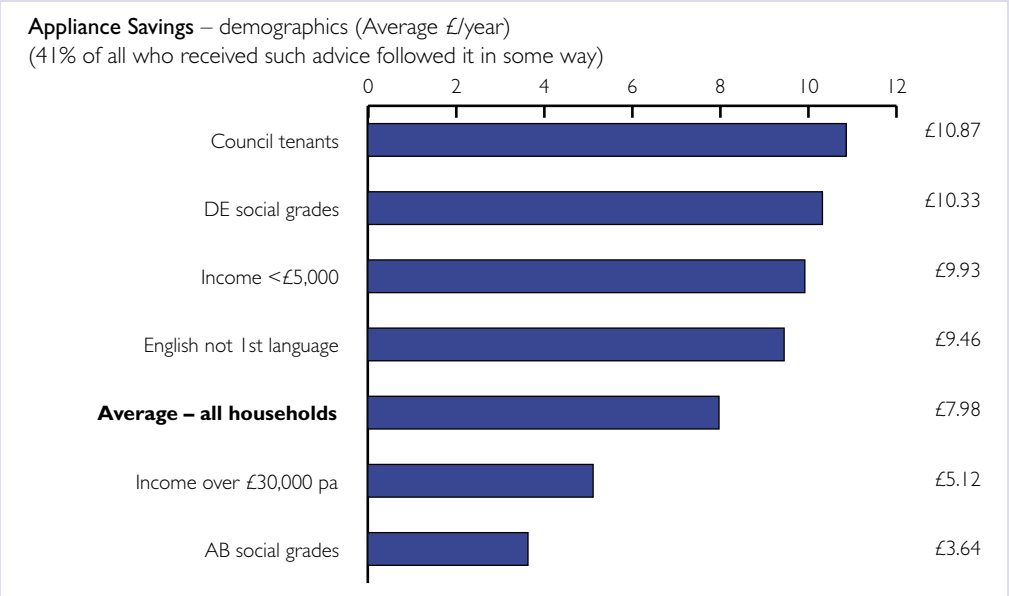
Effects of types of advice

Higher than average savings should be achieved by those who received verbal advice by phone (£11.37 per year) or face-to-face at home (£11.02), and lower than average savings by those who just received reports without verbal advice (£5.93) or leaflets only (£6.03). There was little difference in the savings from client-led (£8.43) and opportunistic advice (£7.59).

Effects among demographic groups

The demographic groups which seem likely to save more are council tenants (£10.87), DE social grades (£10.33), low income (<£5,000/year) households (£9.93) and households where English is not their first language (£9.35). High income and professional (AB) households seem likely to save less as they follow fewer tips.





Savings from advice on how best to use heating and hot water

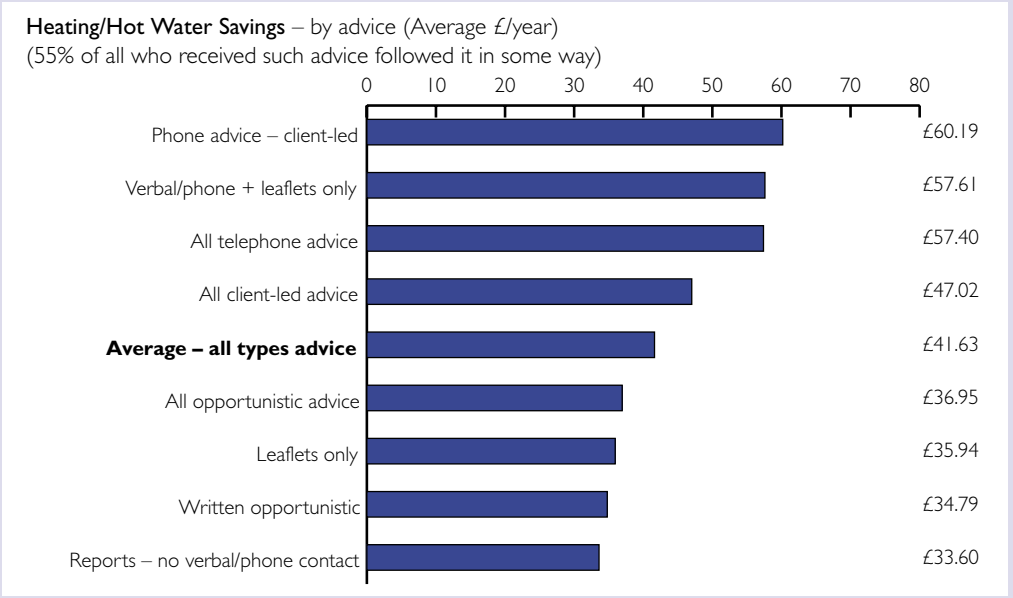
47% of our advice recipients recalled advice on these topics, and 55% then started to follow some of this advice, on average adopting 4 to 5 changes in behaviour each – e.g. adjusting thermostats and timers to suit living patterns, taking more showers, using less hot water for baths or laundry, and fixing dripping hot taps. Among those who received this type of advice the average savings were substantial (around £42 a year) as high as £76 a year among those who followed such advice.

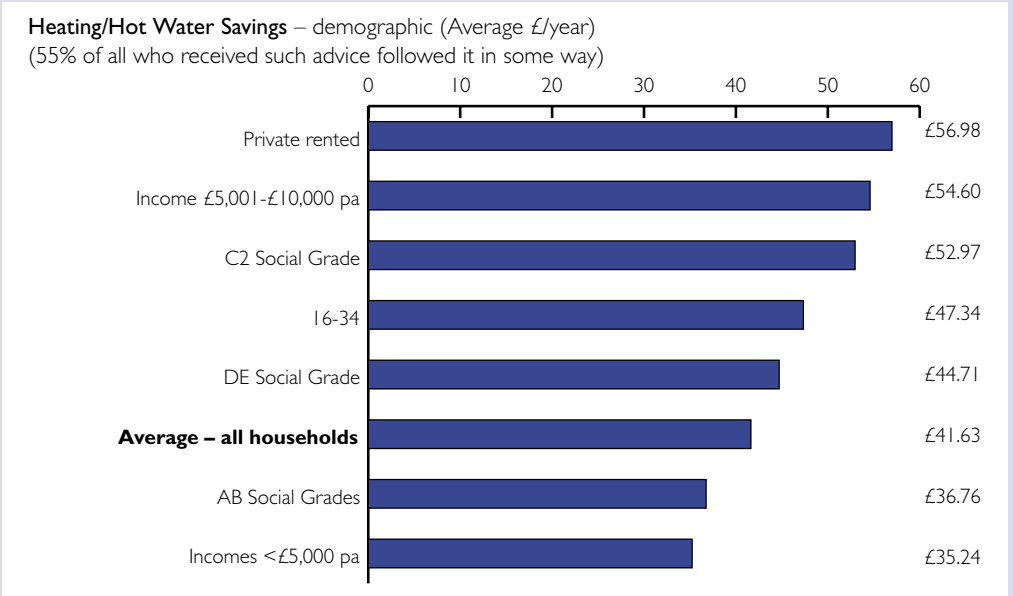
Effects of types of advice

Once again the average savings were higher than average among those who received verbal or telephone advice (£57) and lower among those who received only leaflets (£36) or only reports (£34). Differences between those who received client-led advice (£47) and opportunistic advice (£37) were smaller.

Effects among demographic groups

Those who adopt more energy conscious actions and seem likely to save more are private tenants, quite low income households (£5,001 to £10,000 a year), C2/DE social grades and the people aged 16 to 34. AB social grades and those on the lowest incomes changed their behaviour less after advice – ABs probably because they can afford not too, and low income households because some may already do much to save energy and others may have no central heating to adjust.





Savings from changes in the use of lighting

More people recall advice on this topic (67% of all who received advice) and many of those who received such advice later followed it (80%), each following two or three suggestions on average – e.g. using more low energy lamps (71%), turning off lights in empty rooms or unneeded lights and making more use of daylight (all over 50%). Among those who received this advice the average savings could be around £12 a year, and among those who followed it they could be £15 a year.

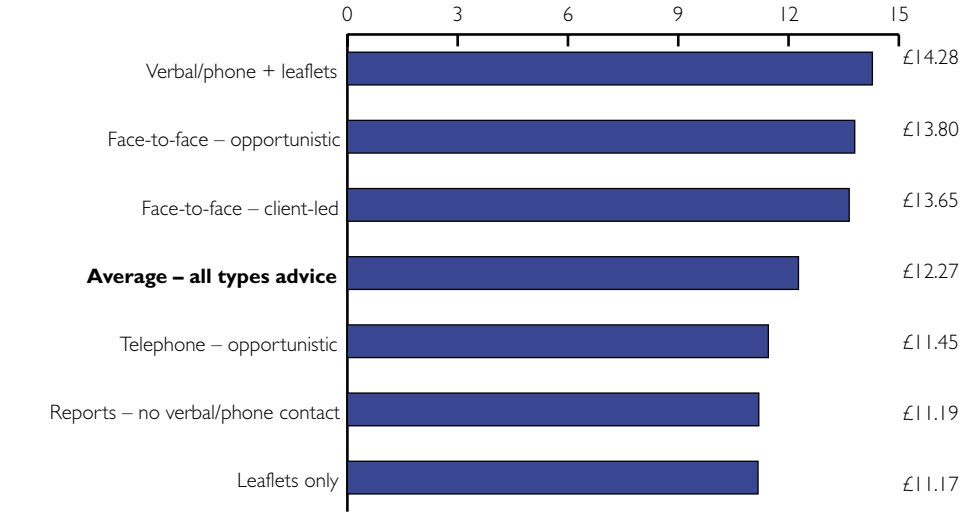
Effects of types of advice

Average savings were higher among those who received some verbal advice (£14) and lower among those who received leaflets or reports alone (£11). Opportunistic advice helped recipients save only slightly less (£11) than client-led advice (£14).

Effects among demographic groups

Savings among various demographic groups were similar, although quite low income households seem likely to save more (£13) than high income households (£11).

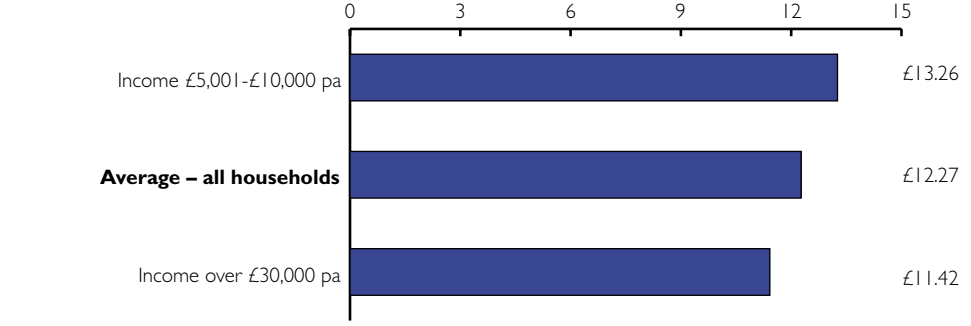
Lighting Savings – by advice type (Average £/year)
(80% of all who received such advice followed it in some way)



Case History 1

Ms X is a single mother with three children (one of whom is disabled) who rents her late 1960s end of terrace home from a housing association. She was initially given opportunistic written advice (a report on her home) by an energy advice centre after she filled in a Home Energy Check, and later received a home visit from a grant scheme surveyor who gave her verbal advice before loft and cavity wall insulation were fitted. But Ms X also made 22 energy conscious changes in her behaviour and now finds her (winter) quarter fuel bill some £80 lower than it used to be, even though her home is warmer. She has also found that draughts, cold spots, dampness and mould have been eliminated and that her family now feels fitter and stronger.

Lighting Savings – demographics (Average £/year)
(80% of all who received such advice followed it in some way)



Savings from following other energy saving tips

38% of our sample recalled other energy saving tips such as closing curtains or blinds at dusk and opening them at daylight, fitting heavier curtains, and blocking up unused chimneys and gaps in floorboards. Most recipients (85%) followed some of this advice (each doing three or four things) and the average savings among all who received such advice should be around £14 a year, or £17 a year among those who followed it.

Effects of types of advice

Once again verbal and telephone advice seemed to have produced more action and greater savings (£16 to £17 a year) whereas reports without verbal advice were less influential (£11 a year).

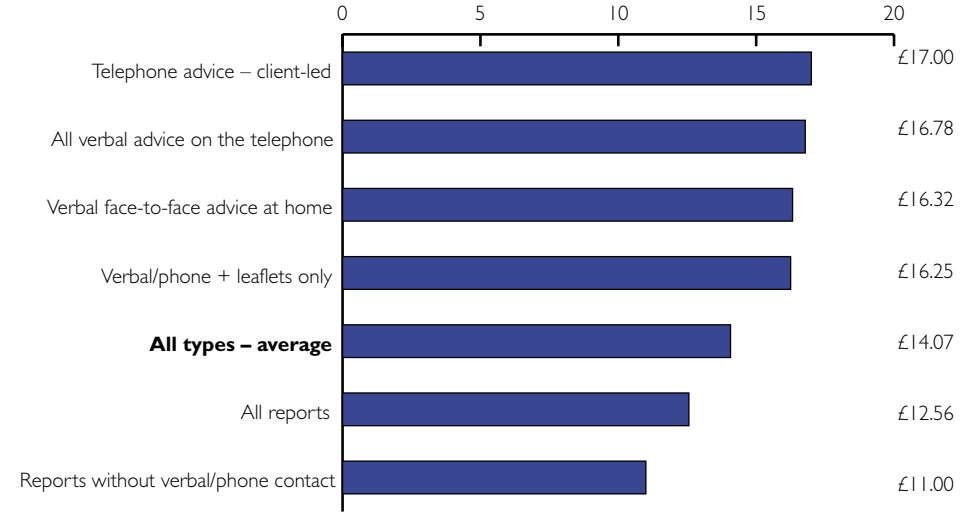
Effects among demographic groups

Higher than average savings should be made by those on modest incomes, those whose first language is not English, C2/DE social grades, and 16-34 year olds (each household saving £15 to £17 a year).

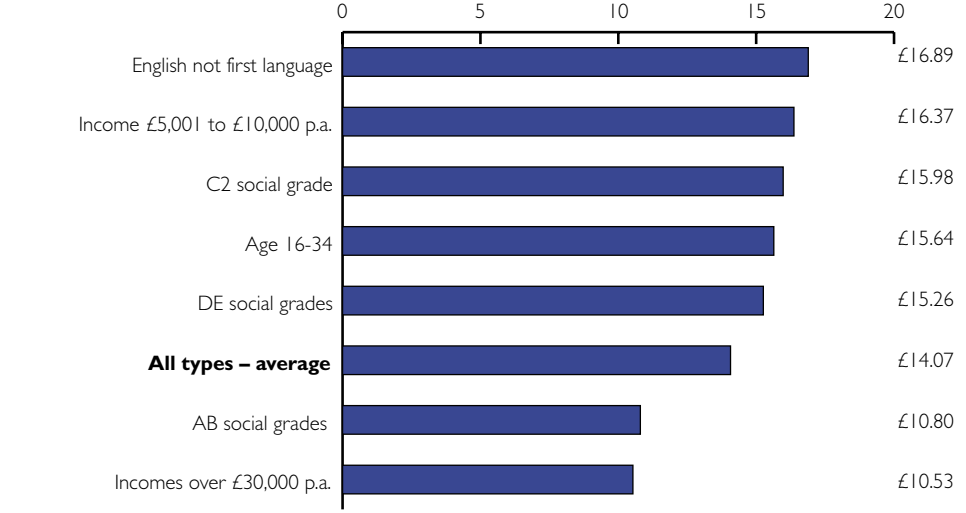
Case History 2

Mr and Mrs P are Gujerati speakers who live in their own detached home in the Midlands. They are both aged over 60. They asked an energy advice centre for help and received a written report, from which they have adopted 21 of the recommended energy conscious behaviour changes, and also fitted a room thermostat, radiator foil and low energy lamps. Since then they have found that their fuel bills are over £70 a quarter lower, while their home is warmer and more comfortable than before.

Other Tips Savings – by advice type (Average £/year)
(85% of all who received such advice followed it in some way)



Other Tips Savings – demographics (Average £/year)
(85% of all who received such advice followed it in some way)



Savings from following combinations of advice

Where households follow a combination of several of these different types of advice, savings can be quite substantial – up to £150 a year for households which more carefully control cooking, lighting, heating and follow other tips, but rather less for households which only adopt one or two types of behaviour change – with £58 the average saving.

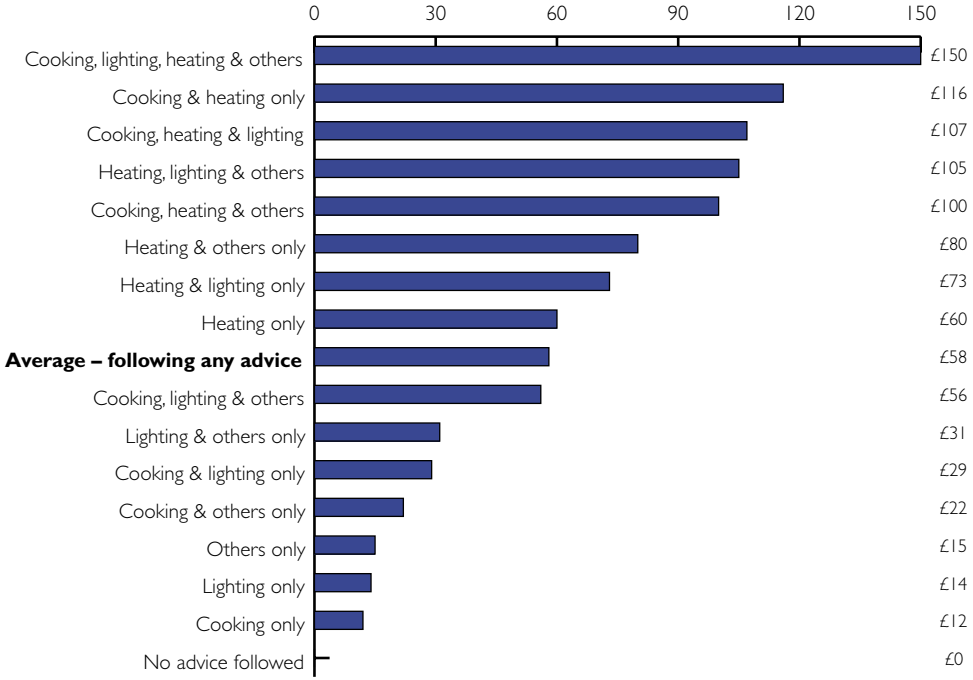
This illustrates the importance of encouraging households to adopt a wide spectrum of energy conscious behaviour changes to achieve maximum savings, which could exceed £185 where households have not been at all energy conscious previously.

Validating these savings estimates

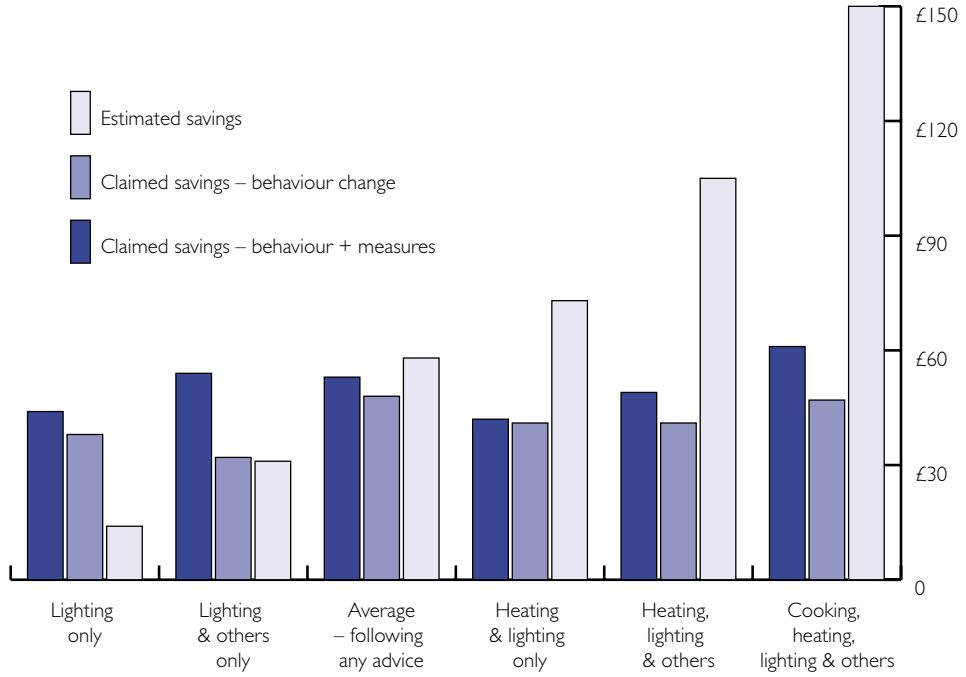
When we compared the overall average savings estimated from these data (£58 a year for all following any advice) with the average savings on fuel bills already noted by some respondents who have only changed their behaviour and not installed energy saving measures (£48), the closeness of these figures suggests that many households are indeed making these savings in practice.

The sample bases are rather too small for the other comparisons to be reliable, but they suggest that people who only change their lighting habits may in practice be making a much bigger saving (£38) than was estimated from this research (£14).

Savings – by combinations of advice followed
Average yearly £ saving for all following advice



Estimated and claimed savings compared



Conclusions – how to improve the quality of advice

The Average Saving being made by advice recipients who change their behaviour following advice is around £58 a year. But much higher savings (e.g. well over £150 a year) can be achieved where households try to be more energy conscious in all four of these areas: cooking and appliances, heating and hot water, lighting, and other tips.

Advice therefore needs to be carefully planned so that recipients are encouraged to adopt more energy conscious behaviour in all areas of their daily domestic life, rather than simply making a few (token?) changes as many advice recipients do at present.

The data clearly show the important influence of verbal advice (either face-to-face in the home, or over the telephone) in encouraging higher than average savings. Home Energy Reports and leaflets on their own are less effective at encouraging energy conscious behaviour changes, and ways of improving their effects in this area need to be developed.

At present advice about behavioural changes to save energy is heeded more often by households on lower incomes (who really need to save) and less often by richer households who can more easily afford their fuel bills. Advice needs to be designed to be more effective among the Fuel Rich, who can potentially make bigger savings and help more to reduce CO_2 emissions.

The environmental benefits of this type of advice are great. Although only £ savings have been shown for clarity in this leaflet, for every £1 saved on fuel bills, energy consumption is reduced by about 34kWh and CO_2 emissions by around 8.5 kgs of CO_2 .

If all 25 million households in the UK reduced their annual fuel bills by £100 through energy conscious behaviour, then together they would save 21 million tonnes of CO_2 emissions each year.

Average yearly savings – all receiving advice	**£**	**kWh**	**kgs CO_2**
Cooking/Refrigeration/Appliances	8	123	52
Heating & Hot Water	42	1,514	343
Lighting	12	185	80
Other Tips	14	930	193

Average yearly savings – all following advice	**£**	**kWh**	**kgs CO_2**
Cooking/Refrigeration/Appliances	19	292	124
Heating & Hot Water	76	2,740	621
Lighting	15	231	100
Other Tips	17	1,129	234
Average: all combined	**58**	**1,971**	**494**

Caveat: The behavioural savings listed and used in this report are provided solely for the purpose of evaluating the effectiveness of different methods of energy efficiency advice provision and should not be used in the evaluation of actual behavioural measures.

Further information

You can access further information about this research:

From the Energy Efficiency Partnership for Homes website:

www.est.org.uk/partnership or **www.eeph.org.uk** where you can download:

- the full report on this research in Word format
- a copy of this leaflet in black and white pdf format

From the Energy Efficiency Partnership for Homes team:

e-mail: **Partnership@est.org.uk** – you can obtain:

- a printed copy of the full report
- further details about the work of the Energy Advice Providers Group

Energy Efficiency Partnership for Homes
21 Dartmouth Street
London SW1H 9BP

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