

Energy Efficient Scotland Transition Programme Survey Evaluation

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Energy Efficient Scotland Transition Programme Survey Evaluation

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Executive Summary

The Scottish Government has set ambitious greenhouse gas emissions reduction targets. Energy efficiency of buildings is a key component of this transition (Scottish Government Climate Change Plan, 2018-2031; Scottish Government Heat in Buildings Strategy, 2021).

The Energy Efficient Scotland programme is a Scottish Government initiative aimed at improving energy efficiency in homes, businesses and public buildings. As part of this programme, local authorities were invited to conduct pilots across three phases: Phase 1 (2016-2018), Phase 2 (2017-2019) and the Transition Programme (2018-2020).

This report presents the social evaluation of the Transition Programme, which aimed to support local authorities' engagement with households and businesses expected to self-fund energy efficiency improvements. The report discusses experiences and perceptions of the Transition Programme using findings from a survey of 490 households across eight Scottish local authority areas. It does not explore the experiences of local authorities or delivery partners running the engagement activities. It does not include any technical-economic cost-benefit analysis of different engagement methods.

The aim of the survey was to investigate the impact of different local engagement strategies on the uptake of domestic energy efficiency measures. Respondents were asked whether they had upgraded energy efficiency of their property after engagement with the programme, and if so, how improvements had been financed. Opinions on future local and national government engagement in domestic energy efficiency improvements were also sought.

These findings can be used alongside other evidence to inform heat decarbonisation and energy efficiency engagement programmes in Scotland.

Key Lessons

- The Energy Efficient Scotland Transition Programme had a positive impact on Scottish households through advice, which has stimulated action. Respondents regarded advice from local authorities and Home Energy Scotland as trustworthy. The findings support that local authorities are in a position to provide energy efficiency advice. Appropriate resources, in terms of funding, skills, and staff capacity, are needed to support local authorities in order to support effective engagement and advice services, and catalyse effective change.
- Survey respondents engaged in the Transition Programme via in-home visit or home energy survey were most likely to recall receiving advice. Drop-in centres had the highest percentage of respondents who thought the advice received was useful. Those engaged via drop-in centre were

also most likely to use personal finance when taking, or planning, energy efficiency measures. The highest proportion of respondents taking or planning action were those engaged either via a drop-in centre or project website. Findings that distinct engagement strategies had different effects on the likelihood of planning or installing energy efficiency measures merit further investigation.

- Cost was the primary barrier that prevented household respondents taking energy efficiency measures. Most respondents stated that they would need a grant (as opposed to an interest-free loan) to support their uptake of efficiency measures. These findings reinforce related proposals for increased, long-term funding for retrofit by homeowners.
- Lack of new information was a barrier to household change. Whilst the provision of information through the Transition Programme was beneficial, most householders believed they were already familiar with standard information. The Scottish Government and local authorities could provide more detailed information, tailored to household type, including those in conservation areas.
- The Transition Programme research findings also highlight the difficulties of engaging the non-domestic sector in energy efficiency improvements. This suggests the potential value of an obligatory framework to secure participation.

Contents

Executive Summary	2
Key Lessons	2
List of Figures	5
List of Tables	6
Introduction	7
Background to Energy Efficient Scotland programme	7
Local authority pilots of engagement strategies	7
Aim and structure of this report.....	9
Methods	11
Data Collection and Analysis	11
Research Limitations	12
Results and Discussion	14
Participant demographics and property characteristics	14
Age	14
Gender	15
Income.....	15
Location.....	16
Property Characteristics	18
Energy efficiency knowledge	19
Engagement with Energy Efficient Scotland.....	20
Impact of Energy Efficient Scotland engagement.....	24
Financing energy efficiency improvements.....	25
Barriers to energy efficiency engagement	28
Future energy efficiency engagement	30
Conclusions	34
Engagement with Energy Efficient Scotland Transition Programme Pilots.....	34
Barriers to energy efficiency engagement	34
Key Lessons	35
References	36
Appendix 1: Transition Programme Engagement Survey Design	38
Appendix 2: Example Survey (Scottish Borders)	42
Appendix 3: Background Data	52

List of Figures

Figure 1. Example of energy drop-in centre.....	8
Figure 2. Respondents by age group.....	15
Figure 3. Respondents by local authority.....	17
Figure 4. Illustrative map of respondent postcodes.	17
Figure 5. How well informed respondents feel about ways to improve energy efficiency in their homes.	19
Figure 6. Whether respondents had received advice from the Council's Energy Efficient Scotland programme in the last 12 months.....	21
Figure 7. Proportion of respondents that recalled receiving advice from Energy Efficient Scotland by engagement strategy.....	22
Figure 8. Engagement strategy respondents recalled receiving advice from (by local authority)	22
Figure 9. Whether respondents found Energy Efficient Scotland advice useful, by engagement strategy	23
Figure 10. Whether respondents had installed or planned any measures to improve energy efficiency of their homes following advice from Energy Efficient Scotland....	24
Figure 11. Whether respondents installed or planned any measures to improve their home's energy efficiency following advice from Energy Efficient Scotland (by engagement strategy)	25
Figure 12. Actions taken or planned by respondents as a result of Energy Efficient Scotland advice.....	26
Figure 13. Types of finance for completed or planned energy efficiency projects	26
Figure 14. Energy efficiency measures taken or planned (by type of finance)	27
Figure 15. Type of finance used for energy efficiency measures (by engagement strategy)	28
Figure 16. Factors affecting respondents' decision not to go ahead with energy efficiency measures, despite receiving useful advice	29
Figure 17. Reasons why respondents did not find the advice received from Energy Efficient Scotland useful.....	30
Figure 18. Organisations/groups that households would trust when looking for advice about energy efficiency	31
Figure 19. Preferred engagement strategy of future government-run energy efficiency schemes.....	31
Figure 20. Respondents ranking on what they would find useful when deciding about energy efficiency improvements	32
Figure 21. Respondents ranking on how they would expect to pay for any future energy efficiency improvement in their homes.....	33

List of Tables

Table 1. Local authority and delivery partner engagement strategies.	10
Table 2. Domestic survey summary table	16
Table 3. Percentage of respondents who recalled receiving advice from Energy Efficient Scotland by local authority and delivery partner.....	21

Introduction

Background to Energy Efficient Scotland programme

The Scottish Government has set legally-binding targets to achieve net-zero greenhouse gas emissions by 2045. Energy efficiency of buildings is a vital component of this transition, since buildings account for approximately 21 per cent of Scotland's total greenhouse gas emissions (Scottish Government, 2021). Accelerating the rate of energy efficiency retrofit and uptake of renewables in the 'self-funded'¹ domestic and non-domestic building sector is critical. As outlined in the Climate Change Plan (2018-2031) and Heat in Buildings Strategy (2021), the Scottish Government has committed to increase the energy performance of domestic buildings to at least Energy Performance Certificate (EPC) Band C by 2030, with all homes meeting at least this standard by 2033.

The Energy Efficient Scotland² programme aims to improve energy efficiency in all homes, business and public buildings. Energy Efficient Scotland was set up to test mechanisms for energy efficiency, and is now being taken forward through the Heat in Buildings Strategy. The programme is extending former legislation and support for energy efficiency, such as the Home Energy Efficiency Programme for Scotland: Area Based Scheme (HEEPS:ABS).

As part of the Energy Efficient Scotland programme, local authorities were invited to bid for three rounds of funding for pilots to support local energy efficiency and heat decarbonisation work. Pilots were conducted between 2016-2019: Phase 1 (2016-2017), Phase 2 (2017-2018) and the Transition Programme (2018-2019).

This report presents the social evaluation of the final phase of the pilot programme – the Transition Programme – that aimed to support local authorities' engagement with households and businesses expected to self-fund energy efficiency improvements.

Local authority pilots of engagement strategies

Engagement strategies were an opportunity for local authorities to pilot awareness raising and to support delivery of a 'hand-holding service' for improvement measures. Strategies targeted both domestic and non-domestic properties.

¹ Also known previously as 'Able to pay' service

² The programme was called Scotland's Energy Efficiency Programme (SEEP) at the start of the pilots, but the name was later changed to Energy Efficient Scotland.

The engagement strategies included:

- Leaflet or letter i.e. postal (mail-out) or electronic (email);
- Dedicated telephone advice line;
- Energy drop-in centre (or 'hub')³; (example in Figure 1)
- Local event (e.g. talks and presentations to local community groups);
- In-home visit or site survey;
- Webpage;
- Other (e.g. local press, social media, referrals from friends or other organisations such as Home Energy Scotland).



Figure 1. Example of energy drop-in centre. Source: Changeworks (2020) Energy Efficient Scotland Transition Programme Pilot, Changeworks in Burntisland Final Report, p.1.

In most pilots, local authorities worked with a third sector organisation; these included the Wise Group, Changeworks, SCARF and the Energy Agency. This was at the discretion of local authorities, and they generally had an existing track record of work with such organisations.

³ Whilst there may be subtle differences, the terms 'drop-in centre' and 'hub' are used interchangeably in this report. In some cases, the drop-in centre as a community engagement strategy had been established at the time of the Transition Programme, e.g. in Peebles by Changeworks. See Changeworks (2019) Scotland's Energy Efficient Programme (Energy Efficient Scotland) Stage 2 Transition Pilot Final Report. Available at: [CW in Peebles Interim Full Report.pdf \(changeworks.org.uk\)](#)

Importantly, local authorities and their delivery partners designed their own engagement strategy and determined how they managed this. Each engagement strategy was therefore unique to the local authority and variable across Scotland, as shown in Table 1 (though there may be similarities between local authorities using the same delivery partner). All engagement strategies were used *in combination*; for example, some authorities that established a drop-in centre also used other methods of engagement, such as a letter and website. Therefore, the strategies were not conducted in isolation, and this is reflected on later in discussion of the research limitations.

Aim and structure of this report

The University of Edinburgh was commissioned to conduct the evaluation of the community engagement pilots during the Transition Programme. This evaluation report follows on from the social evaluations completed in Phase 1⁴ and Phase 2⁵ of the Energy Efficient Scotland pilots.

The research team, in collaboration with local authorities, conducted surveys in eight different local authorities. Surveys were used as the main method to investigate the effectiveness of different approaches to community engagement and advice services to increase uptake of energy efficiency measures by property owners.

The findings in this report will inform the development and delivery of the Scottish Government's on-going energy efficiency, fuel poverty, and heat decarbonisation programmes, including Warmer Homes Scotland and Home Energy Scotland.

The evaluation report is structured as follows: the first section provides a background introduction and context to the Energy Efficient Scotland Programme. The second section outlines the methods used for evaluating the pilots and notes the limitations of the research. The third section presents the results and discussion, and the final section presents the conclusion and key lessons for policy-making.

⁴ Refer to: Scottish Government, Energy Saving Trust and University of Edinburgh (2018) Energy Efficient Scotland – Phase 1 Pilots Evaluation Final Report, Available at: [EES-Pilot-Evaluation-Phase-1-Final-Report1.pdf](#) (heatandthecity.org.uk)

⁵ Scottish Government and University of Edinburgh (2018) Energy Efficient Scotland Phase 2 Pilots: Final Social Evaluation Report. Available at [EES Phase 2 pilots: final social evaluation report - gov.scot](#) (www.gov.scot)

Local Authority	Delivery Partner	Strategy	Area
East Ayrshire Council	Energy Agency	Mail out; Social media; Events.	Combined scheme in East Ayrshire & Dumfries & Galloway: Wallace Street & South Hamilton St in Kilmarnock (East Ayr); Moffat Road & Edinburgh Road in Dumfries (Dumfries & Galloway) Dalrymple, Gatehead and Kilmarnock
South Ayrshire Council	Energy Agency	Mail out; Social media; Events.	Alloway and Symington (towns)
Fife Council	Changeworks	Hub; Social media; Events.	Burrtisland (rural town)
The Highland Council	None	Mail out; In-home visits; Social media; Webpage; Email.	Highland-wide and targeted action in HEEPS:ABS areas
Renfrewshire Council	Wise Group	Mail out; Social media targeting; Telephone advice line; In-home visits.	Lochfield, Paisley
Aberdeen City Council	SCARF	Social media targeting; Mail out (email and webpage); Community events; Telephone advice line.	Urban - Aberdeen
Aberdeenshire Council	SCARF	Hub; Mail out; Social media targeting; Email and webpage; Telephone advice line.	Ellon (town, population ~ 10k) & district - Aberdeenshire
Scottish Borders Council	Changeworks	Hub; Social media targeting (email and webpage).	Tweeddale (population ~ 21k) – 5 towns

Table 1. Local authority and delivery partner engagement strategies. This table only includes local authorities that were selected for the evaluation survey and is therefore not representative of all local authorities involved in the Transition Programme. The information used in this table has been extracted from the local authority pilot application submissions; the exact strategies implemented may have changed when conducting the pilots.

Methods

Data Collection and Analysis

Time and resource constraints resulted in a survey with eight local authorities participating in the Transition Programme, selected by the University of Edinburgh research team. The selection aimed to represent the variety of pilots implemented across Scotland, including the range of: engagement strategies (e.g. drop-in centre; mail outs; telephone advice line); delivery partners (e.g. Changeworks; Energy Agency; Scarf), and locations (e.g. urban, rural), as highlighted in Table 1.

The survey was designed by the University of Edinburgh research team in collaboration with local authorities. It comprised three sections, with closed, multiple response, and open-ended questions (a copy of the survey is in Appendix 2).

The surveys investigated energy efficiency engagement in two sectors – domestic (i.e. the household survey) and non-domestic (this survey was particularly targeted at small to medium enterprises). Questions were designed to establish the extent to which the engagement strategies affected domestic and non-domestic sector engagement with, and investment in, energy efficiency measures, and whether some strategies were more effective than others in stimulating action. The domestic survey was also designed to investigate any significant variations or correlations in answers based on age group, tenure type and income band.

The non-domestic survey response rate was very low (as reflected in comments on research limitations), and hence this report is based on household respondents only.

In total, the survey had 23 questions investigating four themes:

- Demographic data and property characteristics
- Householders' knowledge of energy efficiency measures;
- Householder engagement with energy efficiency within the property and sources of finance used before and after engagement with the programme;
- Opinions on local and national government engagement in domestic energy efficiency improvements at present and in the future.

Local authorities and/ or their delivery partners distributed the surveys to households that had been engaged at least once and had consented to taking part in the research. This includes householders who had approached, or been approached by, a local authority as part of engagement strategy.

Local authorities and/ or their delivery partners distributed the surveys by email and/or post, depending on participant contact preferences. The mode and time of survey distribution therefore varied. Participants were asked to

respond either online, via Qualtrics (a specialist survey software), or by returning a completed paper survey, using a pre-paid envelope. For the latter, data were entered manually into Qualtrics by the University of Edinburgh research team. A cover letter was included with the survey, and reminder emails and/or postcards were sent to each household. Incentives were provided to encourage participation (e.g. via a prize draw to win a £50 or £100 shopping voucher); these were determined by the local authority and delivery partner teams.

Data were anonymised for privacy and confidentiality. The key descriptive statistics and themes were analysed, and triangulated with data from previous Energy Efficient Scotland pilots, for example, interviews with local authority representatives conducted in Phase 1, Phase 2, and the Transition Programme. The survey data are presented and visualised using Excel.

In most cases, the data are presented for the local authority as a whole and then analysed according to engagement strategy. In some cases, data are compared across the eight local authorities. For consistency, the presentation of local authorities remains largely the same throughout the report – the sequence has been generated randomly (Table 1). The order for engagement strategy is sorted from largest to smallest number of responses to examine the effectiveness of the strategy. As with all research there were some limitations; these are described next.

Research Limitations

This evaluation focuses on understanding households' experiences and perceptions of the engagement strategies trialled in the Transition Programme. It does not explore the views or experiences of the local authorities or delivery partners running the engagement activities, nor does it assess the costs or relative value for money of different engagement activities.

The eight local authorities involved in this survey evaluation are not a representative sample of all the local authorities, which engaged in the Transition Programme, due to time and resource constraints. However, this selection does try to capture the variety of pilots implemented across Scotland.

Sending surveys to all households in local authorities was out-with the scope of this report in terms of time, cost and staff resources; therefore, a sampling technique was used. The surveys were restricted to householders that had already engaged with the local authority and had consented to take part in research. This sampling technique excluded households which had not engaged at all, or had chosen not to be contacted. Caution is used in interpreting the results, as this is not a representative sample of all local authority areas participating in the Transition Programme (as detailed in Appendix 1). In addition, due to time and resource constraints, there was no matched control group of households not engaged.

Although every effort was used to encourage participation, for example, by providing financial incentives and survey completion reminders, the response rate across the non-domestic and domestic sector varied. The response rate for the non-domestic sector was too low for quantitative analysis (7%) and responses are not included in the report. The response rate for the domestic survey was 14% (n=490) and therefore provided a reasonable dataset for quantitative analysis and descriptive statistics. This can aid understanding of household responses to engagement, but we have avoided over-generalising from the results, because of relatively low response rates.

The pilots in each area were tailored to local priorities; therefore, the survey was not comparing the same strategy across local authorities. There were for example different delivery partners conducting various forms of engagement in different areas, as represented in Table 2. For instance, both Fife (Changeworks) and East Ayrshire (Energy Agency) held events as part of their strategies. Different delivery partners and event content, in different places and times, make them distinct. Hence, caution is needed when making comparisons between local authorities.

In addition, engagement strategies were not used in isolation, but often in combination. Therefore, indications of the relative effectiveness of different methods should be treated with caution.

Every effort was made to ensure the survey was clear, concise and flexible, however some results were ambiguous. Some 'data cleaning' was conducted (consistent with social survey methodologies), which involved removing duplicates and errors and re-formatting data for analysis.

The survey was designed for respondents to provide multiple answers to some questions; this allowed greater flexibility than 'single-option' answers. For questions which enabled multiple selections, total responses will not equal 100 per cent. Furthermore, percentages reported can add up to more or less than 100 per cent due to rounding. These instances have been noted throughout the report.

Results and Discussion

The results presented in this section investigate:

- Respondents' engagement with energy efficiency in their property before engaging with the Energy Efficient Scotland programme;
- Respondents' engagement with energy efficiency after the Energy Efficient Scotland programme;
- The impact of engagement on planned and installed measures in respondents' property;
- Opinions on local and national government engagement in domestic energy efficiency improvements at present and in the future;

By way of introduction, the participant demographics and property characteristics are discussed next.

Participant demographics and property characteristics

Age

Almost three-quarters of survey respondents were aged 56 or over. The largest age group were 66 years or over (47%), followed by respondents aged between 56-65 years (22%). Respondents aged between 46-55 years comprised 12% of the total; those aged 36-45 years totalled 9%, and those 35 years or under and those that did not disclose comprised 9% of the total (Figure 2). The proportion of older respondents is significant (with Scotland having 19% of population aged 65 and over in 2019⁶) and may explain differences in behaviour and engagement in energy efficiency. There are variations in respondent age groups between local authorities, with East Ayrshire Council having the highest proportion of respondents aged 66 or over, and Highland Council having the highest proportion of those aged 26-35 (Appendix 3, Figure 1). These results are not representative of age differences between Scottish local authorities⁷.

⁶ National Records of Scotland (2020) Mid-Year Population Estimates Scotland. Available at: Infographic Summary (nrscotland.gov.uk)

⁷ For example, like many other countries, Scotland has an ageing population with a higher proportion of those aged 65 and over residing in more rural areas like the Scottish Borders Council (which had 24.8% of its population aged 65 or over in 2019), and the Highland Council (which had 22.5% of its population aged 65 or over in 2019).⁷ This is in comparison to urban areas, such as Aberdeen City (which had 19.6% of its population aged 65 and over in 2019).

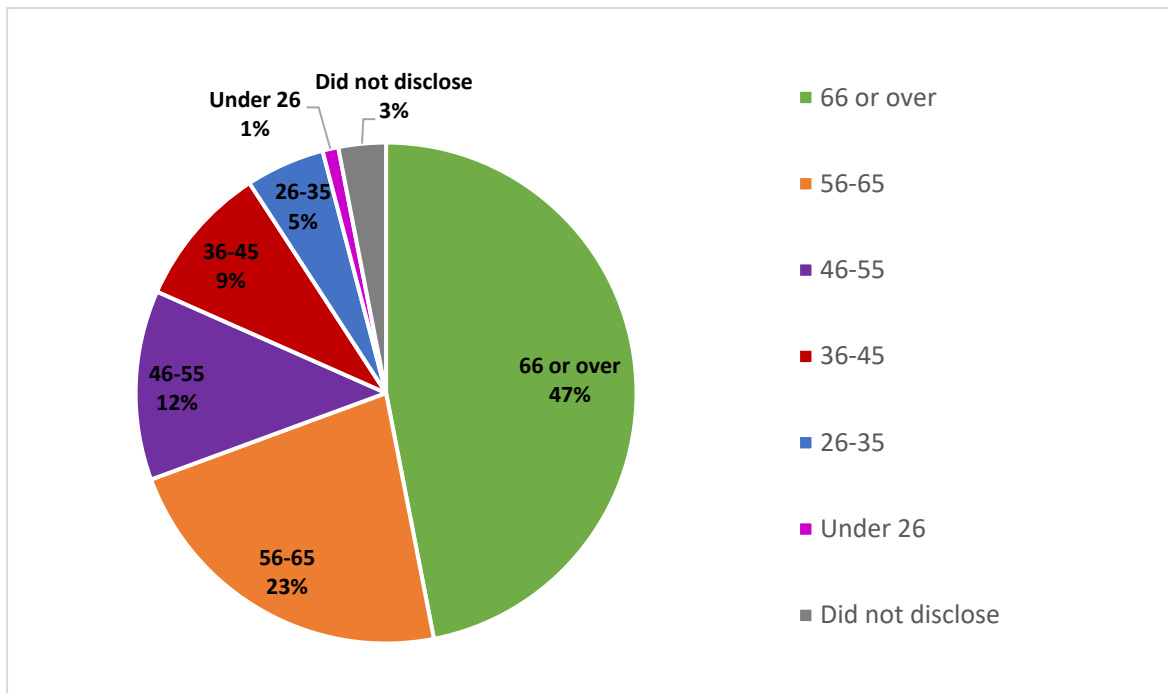


Figure 2. Respondents by age group

Gender

Overall, the survey was largely equal in terms of gender, with 54% of respondents identifying as male, 42% of respondents identifying as female; 4% did not disclose information.

Income

Of those respondents who did disclose annual household income, the highest number of respondents stated they were in the £0-£29,999 category, which is in line with the general statistics for Scotland⁸. The number of respondents decreased as income increased, with the exception of those in the £80,000 and above category who comprised 6% of the total (Appendix 3, Figure 2). This general pattern is repeated across local authorities, with the exception of the Highland Council having a larger proportion of those with a household income of £40,000-£49,999 per annum, and the highest proportion of those earning £80,000-£89,999 (Appendix 3, Figure 2).

⁸ Refer to: Scottish Government (2020) Poverty and Income Inequality in Scotland 2016-2019, Table 1, Available at: Poverty and Income Inequality in Scotland 2016-19 - gov.scot (www.gov.scot); The Scottish Public Health Observatory (2021) Older people: Scottish population demographics. Available at: Scottish population demographics - ScotPHO

Location

In total, 490 domestic surveys were returned for analysis, which amounts to a 14% response rate across eight local authority areas (Table 2). The response rate varied across authorities; in terms of the sample size, the highest percentage of responses were from the Highland Council (24%, n=18), and the lowest percentage were from Aberdeenshire Council (10%, n=55). Overall the highest number of responses were from East Ayrshire (18%, n=89), and the lowest number from the Highlands (n=18, 4%) (Figure 3).

Regarding type of locality⁹, more than half of respondents identified as living in a town (63%) and 14% of respondents identified as living in a city; with the exception of Aberdeen City, the local authorities included in the survey were out-with Scotland's main city conurbations (e.g. Glasgow City, Dundee City, Edinburgh City). There were 14% of respondents who identified as living in a village; 5% of respondents stated that they lived in a dispersed rural area and 3% did not disclose this information (Appendix 3, Figure 3). Respondents also provided postcode information and therefore their location is represented in Figure 4. This map indicates only the location of respondents and not the proportion of respondents from that location.

Local authority	Delivery partner	Sample size (number of surveys sent out)	No. of surveys returned	Response rate of survey per local authority (%)	Proportion of all survey responses received (%)
East Ayrshire Council	Energy Agency	535	89	17%	18%
South Ayrshire Council	Energy Agency	409	54	13%	11%
Fife Council	Changeworks	310	67	22%	14%
The Highland Council	None	75	18	24%	4%
Renfrewshire Council	Wise Group	451	50	11%	10%
Aberdeen City Council	SCARF	617	79	13%	16%
Aberdeenshire Council	SCARF	529	55	10%	11%
Scottish Borders Council	Changeworks	454	78	17%	16%
TOTAL		3380	490	14%	100%

Table 2. Domestic survey summary table

⁹ A degree of discretion is required here as formal definitions of what constitutes a city, town, village and dispersed rural area were not provided to respondents.

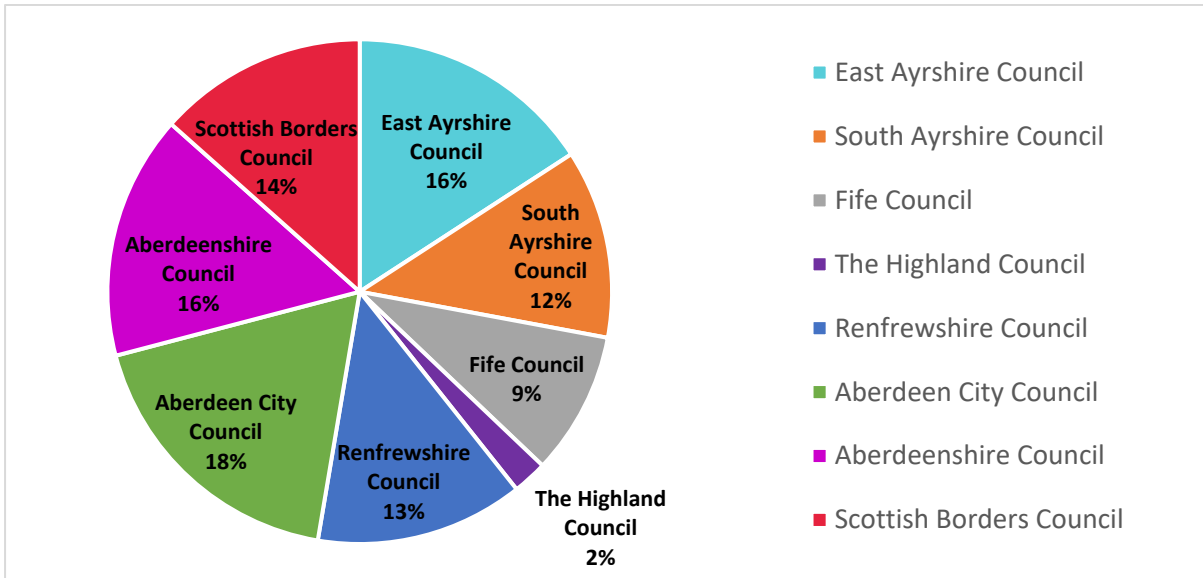


Figure 3. Respondents by local authority

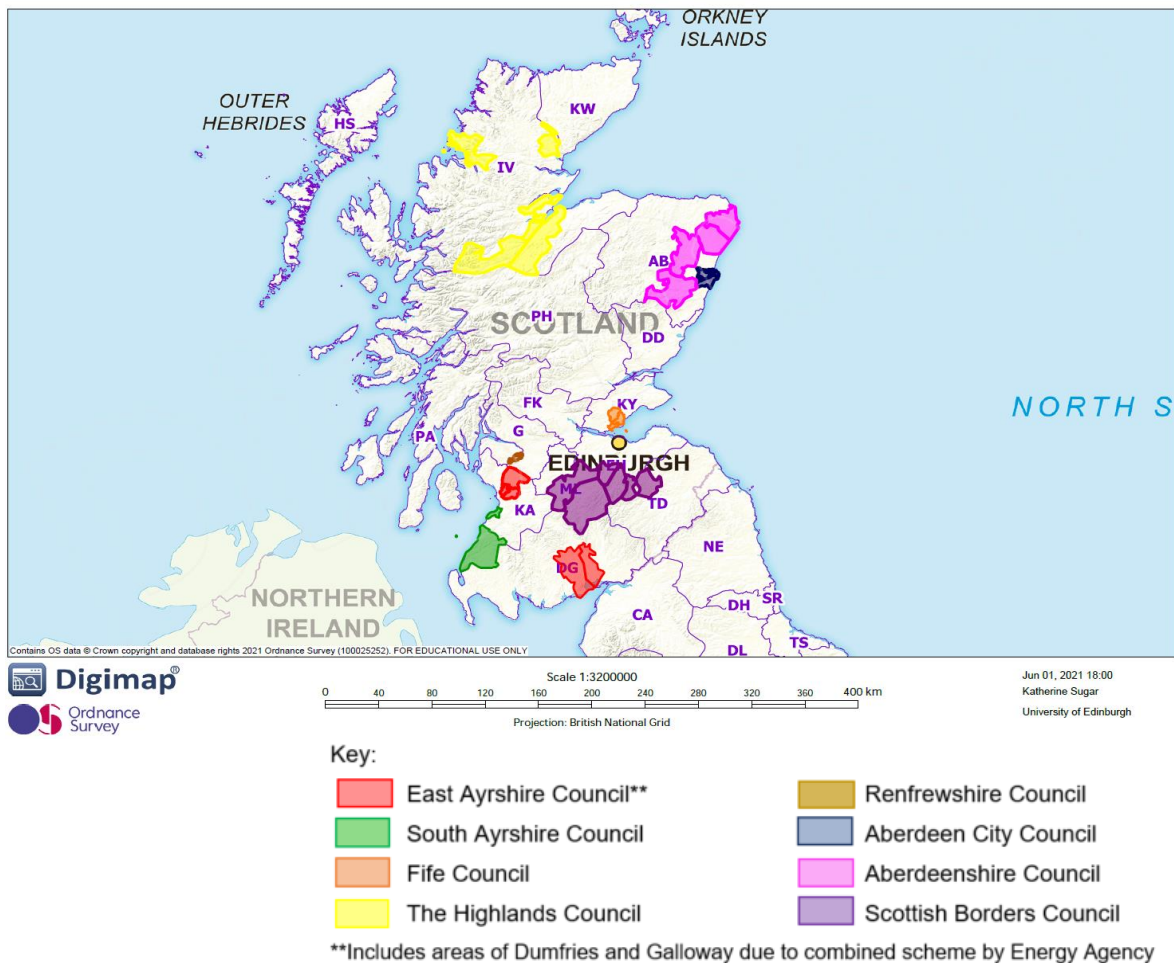


Figure 4. Illustrative map of respondent postcodes. N.B. 14% of respondents did not disclose/specify their postcode information are therefore not included.

The majority of respondents (91%) lived in owner-occupied properties. This was the primary target group for the household survey as they were considered most likely to be in a position to self-fund energy efficiency measures (tenants are unlikely to have responsibility for the fabric of the property) (Appendix 3, Figure 5). Responses correlated with data from the Scottish Household Survey, which shows that the largest proportion of owner occupiers is in East Renfrewshire, followed by East Dunbartonshire and Aberdeenshire - some of these local authorities were included in this survey. Of the remaining respondents, 2% were private-renters, 2% were social-renters, 1% were owners of property-to-let (i.e. landlords), and 1% classified as other (e.g. lived with another family member who owned the property)¹⁰.

Property Characteristics

The most common form of existing energy efficiency measure in respondents' homes was double glazing (93%), followed by loft insulation (82%). Only a quarter of respondents had cavity wall insulation, and the least common forms were solid wall insulation (13%) and renewable technologies (e.g. solar PV) (11%) (Appendix 3, Figure 6). The differences in energy efficiency measures may be due to the age of the property (e.g. older versus newer buildings), the tenure type (e.g. semi-detached versus terraced), tenancy type (e.g. rented versus owner-occupied), or a general lack of respondent knowledge about energy efficiency.

The type of heating used most frequently was gas central heating with radiators (76%) (Appendix 3, Figure 7). No respondents used portable gas heaters (calor gas or paraffin heaters), and warm air central heating, fixed gas fire/gas convector and heat pump systems were also rarely used (1%). These results are expected as the majority of UK households use mains gas as their primary source of heat.

Scotland has a higher proportion of domestic properties that do not use mains gas as primary heating source (22%), than the average in Britain (16%)¹¹. As expected, the most frequent forms of heating vary between Scottish local authorities (Appendix 3, Figure 8). Whilst most respondents used gas central heating, the Highlands Council respondents are an exception, with higher rates of electric, oil, LPG or biomass central heating, and solid fuel. In addition to the Highlands, a higher proportion of respondents in the Scottish Borders and Aberdeenshire used these forms of heating. These results are in line with

¹⁰ This is expected since the engagement services targeted owners, and the largest proportions of tenant households in Scotland are in Dundee City, Glasgow City, Orkney Islands and West Dunbartonshire, which were areas not included in this pilot.

¹¹ Refer to: Ofgem (2015) Insights paper on households with electric and other non-gas heating, Table 1 (p.10) [pdf] Available at: [insightspaperonhouseholdswithelectricandothernon-gasheatingpdf](https://www.ofgem.gov.uk/insights/papers/insights-paper-on-households-with-electric-and-other-non-gas-heating) (ofgem.gov.uk)

studies showing that non-gas dependent households (i.e. using high carbon fuels like oil, LPG and coal) are more common in remote and rural areas¹².

Energy efficiency knowledge

Overall, respondents felt adequately informed about energy efficiency; with 85% stating that, they were either 'quite well informed' (60%) or 'very well informed' (25%), in comparison to those who felt they had limited knowledge (15%) (Figure 5). Across local authorities, the highest proportion of respondents who felt well informed were in the Scottish Borders (38%), Fife (31%) and South Ayrshire (30%) (Appendix 3, Figure 9). The highest proportion of respondents who felt uninformed were in the Highlands (6%) and Aberdeenshire (4%).

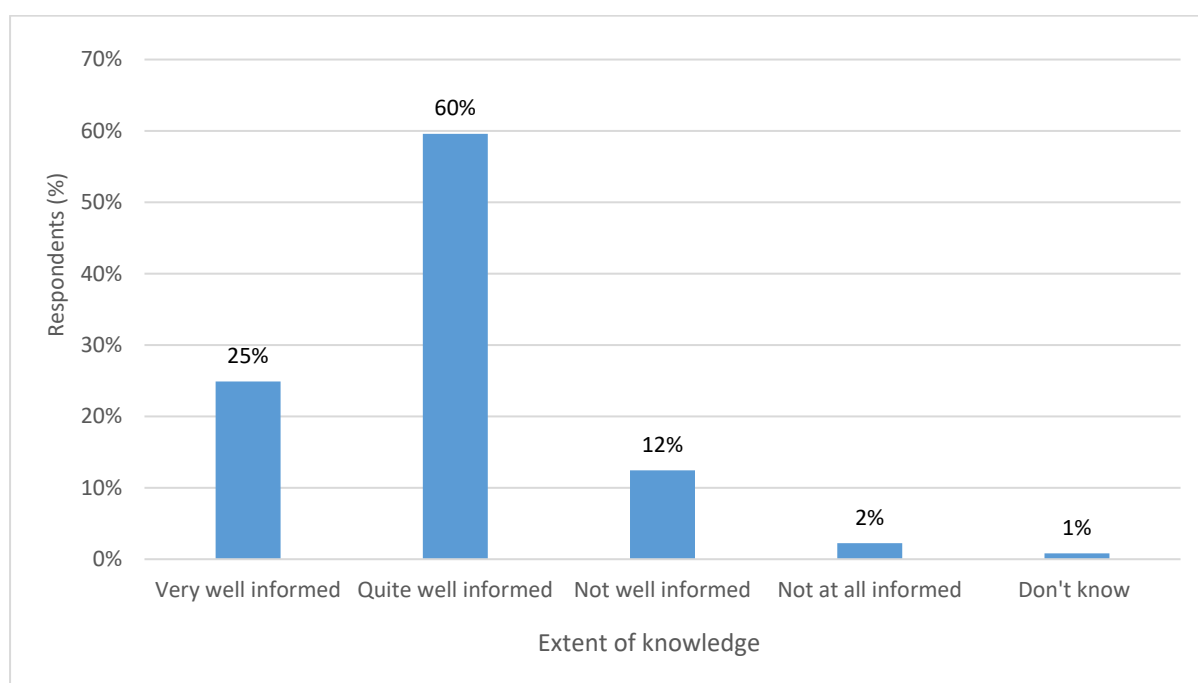


Figure 5. How well informed respondents feel about ways to improve energy efficiency in their homes.

Respondents were asked whether they have ever purposely sought advice for improving efficiency in their homes. Sixty-three per cent of respondents said they had deliberately sought advice; 7% said they had received advice by chance, and 29% said they had not sought such advice (Appendix 3, Figure 10).

The high proportion of respondents who had deliberately sought advice demonstrates proactive engagement and is evidence of the kind of positive behaviour required for net-zero targets. The fact that over a quarter of

¹² EES: the future of low carbon heat for off gas buildings - call for evidence - gov.scot (www.gov.scot)

respondents had not sought advice is conversely indicative of the challenges faced by governments.

There was variability between local authorities in the proportion of respondents who deliberately sought energy efficiency advice (Appendix 3, Figure 11) with Fife and the Highlands having the largest proportions who had deliberately sought advice (84% and 83% respectively) in comparison to Aberdeenshire, which had the lowest proportion (44%). Most respondents who found advice *by chance* were in Aberdeen City (11%).

Engagement with Energy Efficient Scotland

As stated previously, surveys were sent only to households who had some initial engagement with their local authority and had consented to follow-up research.

Just over half of survey respondents (54%) recalled receiving energy efficiency advice in the last 12 months, although 40% did not, and 6% answered that they could not remember whether they had or had not received advice.

Those that recalled receiving advice were asked whether this was from the council's Energy Efficient Scotland project. As shown in Figure 6, more than three-quarters (87%) of these respondents recalled that the advice was from the project. This demonstrates a strong presence, memorable engagement and strong public awareness of the Council's Energy Efficient Scotland programme across all local authority areas. Comparatively, the highest proportion of people recalling advice were from Fife and the Scottish Borders (Table 3).

Lack of recollection of engagement with Energy Efficient Scotland is likely to stem from multiple, inter-related factors. These include the differential strategies adopted by Councils, the different geographies, housing types and population demographics, and the interactions between Councils, delivery partners and the local population, all influencing capacity to promote the project, and to create a memorable, material impact. Understanding the differential impact of strategies, and their material consequences, hence needs more research.

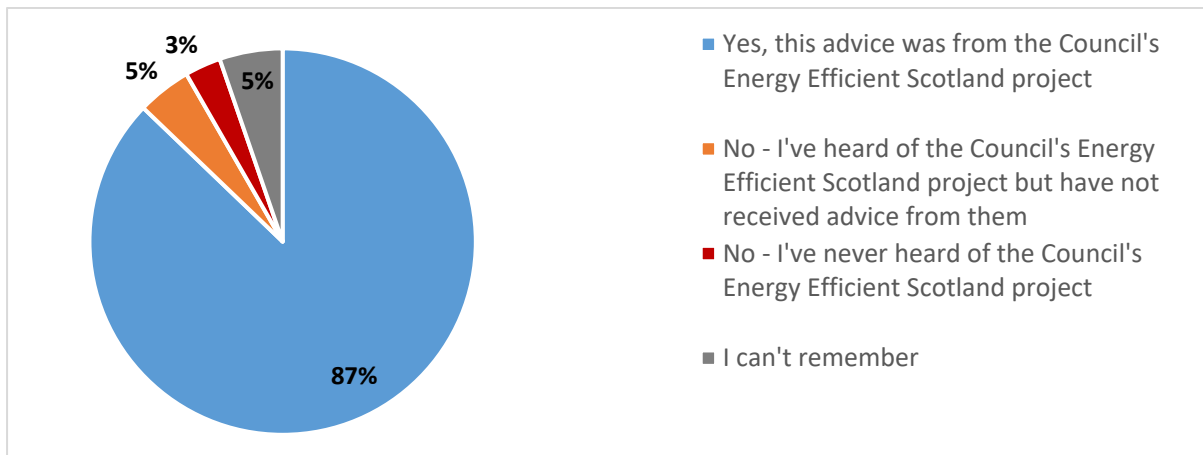


Figure 6. Whether respondents had received advice from the Council's Energy Efficient Scotland programme in the last 12 months

Local authority	Delivery partner	Proportion of respondents who recalled receiving advice from Energy Efficient Scotland
Fife Council	Changeworks	98%
Scottish Borders Council	Changeworks	93%
South Ayrshire Council	Energy Agency	88%
Renfrewshire Council	Wise Group	87%
East Ayrshire Council	Energy Agency	86%
Aberdeen City Council	Scarf	84%
The Highland Council	None	78%
Aberdeenshire Council	Scarf	57%

Table 3. Percentage of respondents who recalled receiving advice from Energy Efficient Scotland by local authority and delivery partner

Those respondents who did recall advice from the local authority's Energy Efficient Scotland project, were asked what form this took (Figure 7). This question was open to multiple responses, because multiple engagement strategies were used in each pilot. For all local authorities, the most common engagement strategy recalled by respondents was in-home visit and/or home energy survey (38%), followed by drop-in centre (or 'hub') (31%), and leaflet or letter (31%). Engagement methods such as drop-in centres and in-home visits require in person interaction, which may be more memorable. In this sample however, recall of leaflet or letter contact was equal to recall of drop-in centre contact. Website and advice lines were far less commonly recalled¹³.

¹³ Refer to: Scottish Government and University of Edinburgh (2018) Energy Efficient Scotland Phase 2 Pilots: Final Social Evaluation Report, p.33. Available at EES Phase 2 pilots: final social evaluation report - gov.scot (www.gov.scot)

Strategies that do not require face-to-face contact, such as telephone advice lines or websites may therefore be less memorable.

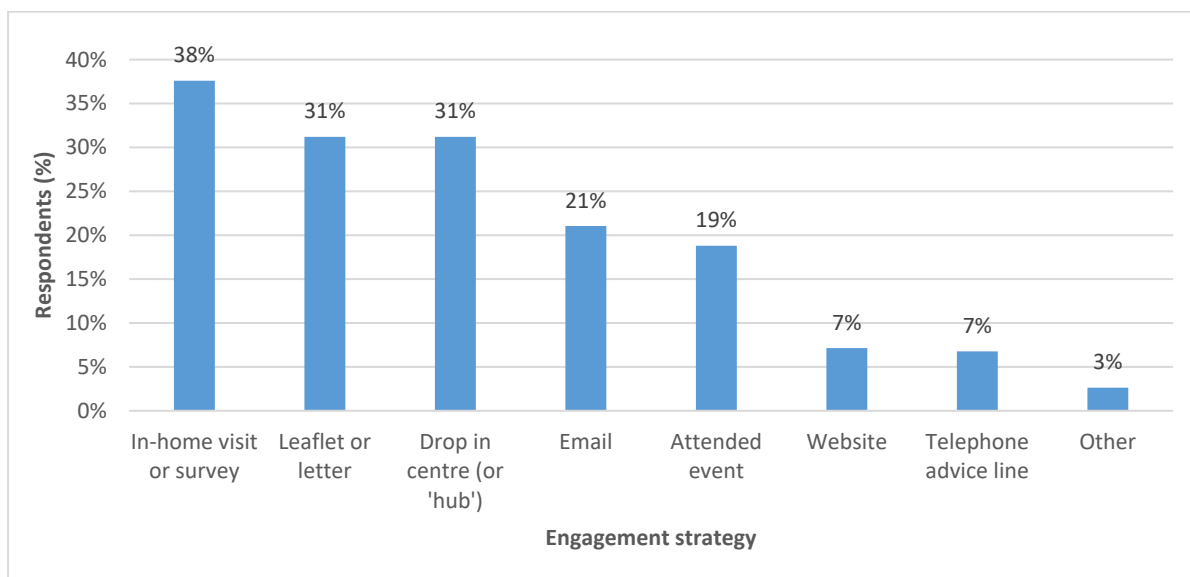


Figure 7. Proportion of respondents that recalled receiving advice from Energy Efficient Scotland by engagement strategy. N.B. For this question, respondents had the option to select more than one option from the list provided, therefore the total does not add up to 100%.

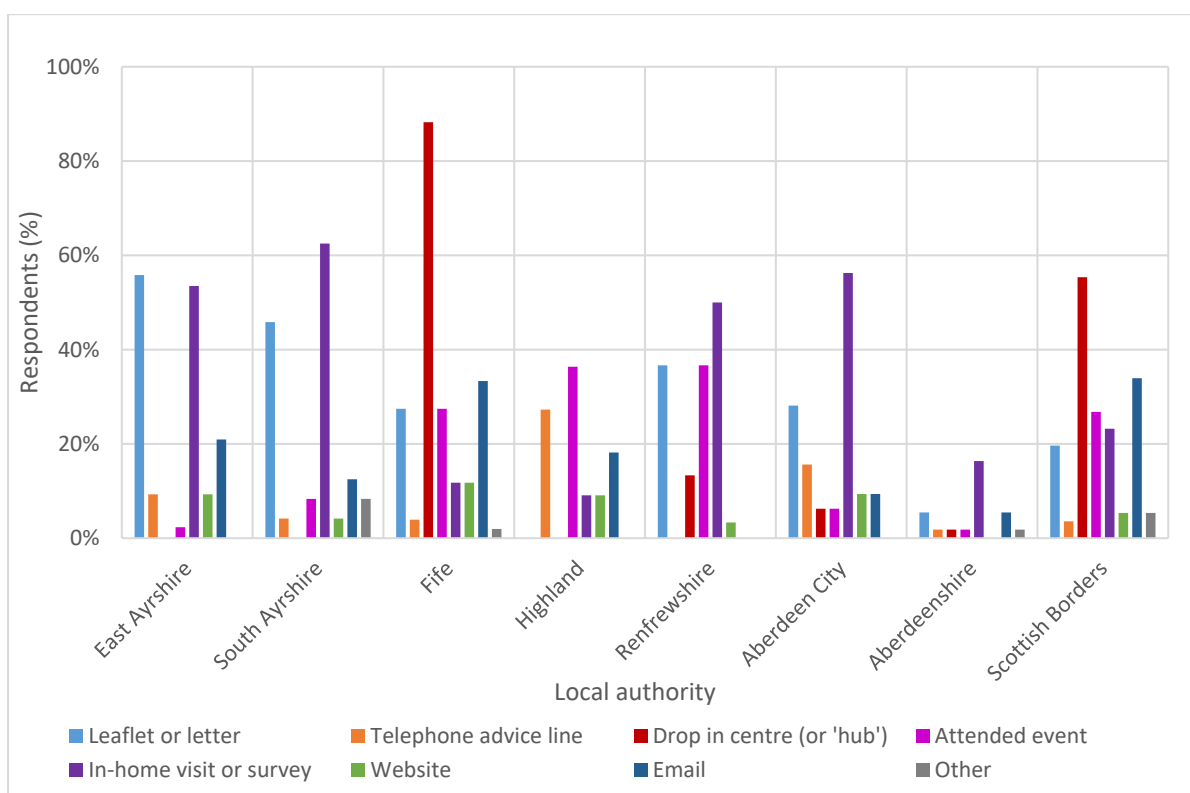


Figure 8. Engagement strategy respondents recalled receiving advice from (by local authority) N.B. For this question, respondents had the option to select more than one option from the list provided, therefore the total does not add up to 100%.

Respondents who did recall advice from the council's Energy Efficient Scotland programme were asked to reflect on whether the advice was useful¹⁴; this can be used as an indicator of how effective the advice was, and its likely potential to stimulate change.

The majority of respondents (89%) stated that the advice was useful, indicating the positive impact of the programme. When the data are ranked according to type of engagement which is perceived most useful (Figure 9), the drop-in centres had the highest percentage of respondents who thought the advice received was useful (n=80). This was followed by telephone advice line and website. Of those respondents stating that the advice was not useful, the 'other' category scored highest (e.g. social media, referral from a friend), but in-home surveys and visits, leaflets and letters were also perceived as unhelpful in some cases. The reasons behind this are discussed later (Figure 17).

As noted previously, the different engagement strategies require different levels and types of contact, from in person to web page. This may result in different levels of trust and momentum. For example, those who engaged via in-home visit or survey were most likely to *recall* receiving advice. Advice received via a drop-in centre was, however, marginally more likely to be regarded as useful than other methods. Multiple methods of contact were used in each project, which excludes the possibility of testing the impacts of each method in isolation. In practice, reinforcing the messages and advice via multiple methods seems likely to be required to create and sustain momentum to act on home energy efficiency.

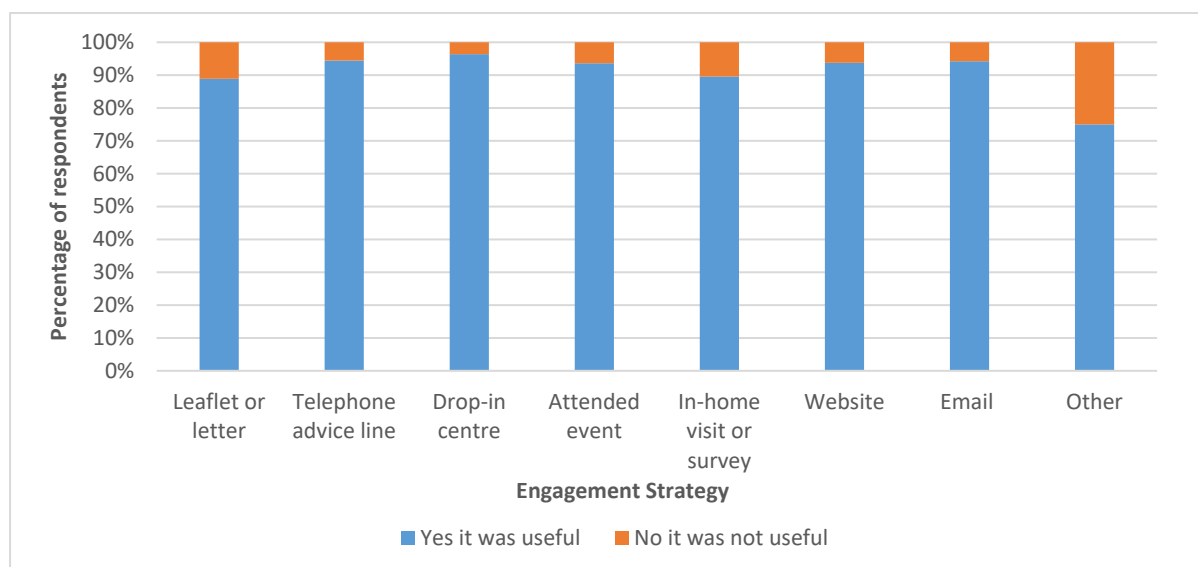


Figure 9. Whether respondents found Energy Efficient Scotland advice useful, by engagement strategy

¹⁴ The 'usefulness' of advice provided by the Council's Energy Efficient Scotland programme was not clearly defined. Therefore, this would be subject to different interpretations from different respondents, and so a degree of caution is required.

Impact of Energy Efficient Scotland engagement

Respondents were asked whether they had installed, or planned, any measures to improve energy efficiency of their homes. Overall all types of advice had a positive impact, with 61% of respondents taking action, while 28% did not, and 11% did not disclose (Figure 10). We cannot however compare action following advice with action in similar households who had not received advice, because of lack of a matched control group.

Examining the interaction between engagement strategy and actions taken (Figure 11) suggests that uptake varied to some extent according to engagement. Respondents engaged by 'other' strategies (such as social media or referral from a friend) appeared most likely to act; however the small number in this group (n=3) make these findings unreliable; this was followed by drop-in centre or 'hub' (78%) and website (78%), event (73%) and phone contact (72%). Given the small differences between each of these, further research would be needed to provide a robust test of effectiveness.

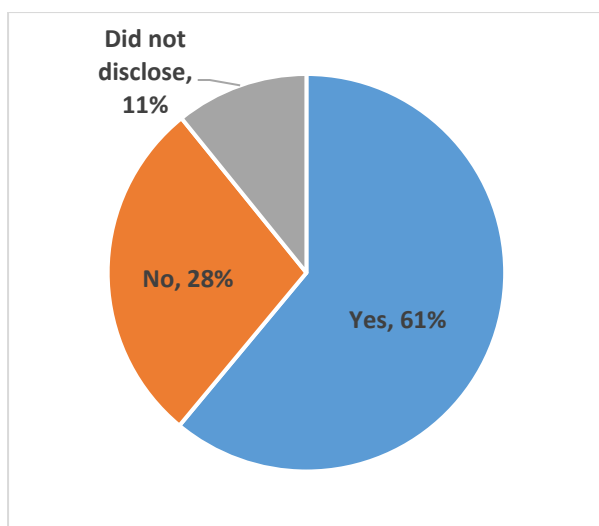


Figure 10. Whether respondents had installed or planned any measures to improve energy efficiency of their homes following advice from Energy Efficient Scotland

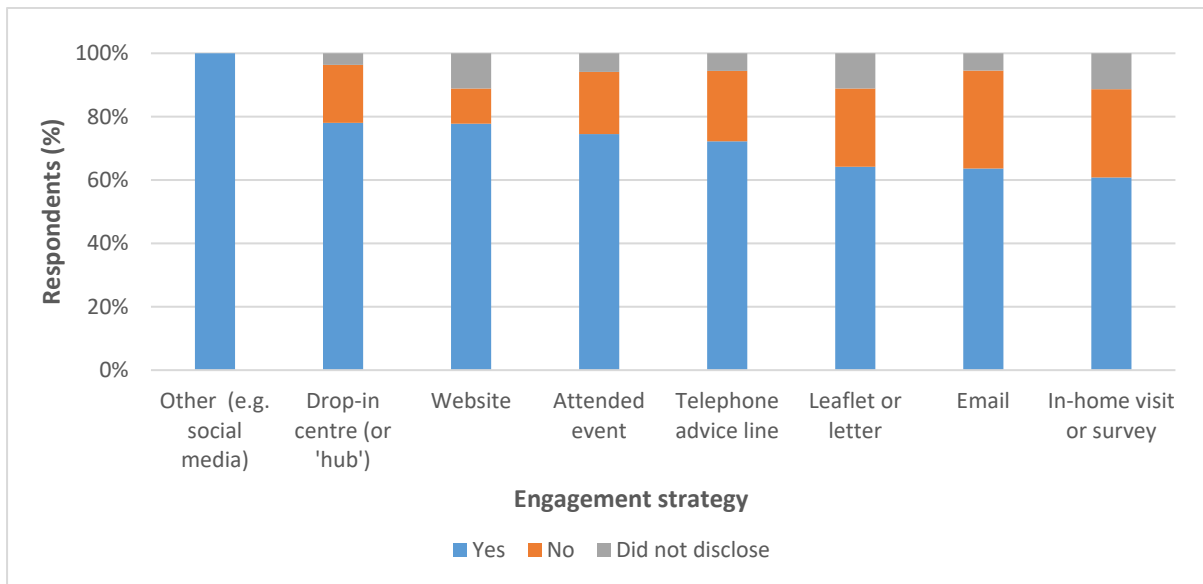


Figure 11. Whether respondents installed or planned any measures to improve their home's energy efficiency following advice from Energy Efficient Scotland (by engagement strategy)

Respondents also planned further home energy efficiency measures, following advice, relative to those installed. Local authority projects had different start and end dates, and there were gaps between the end of each project and collection of survey data. This may have affected measures of action taken and planned. Notably respondents who received advice earlier had more time to install measures.

Most frequent changes reported were upgrades to heating systems (24%). With regard to planned actions, most respondents were planning to add loft insulation (21%). Very few respondents were considering renewable technologies (Figure 12). These findings are expected, since 76% of respondents used gas central heating, which was likely to be the biggest opportunity for improvements.

Financing energy efficiency improvements

Respondents were asked how they financed these measures. Half stated they used personal finance; 16% used Home Energy Scotland (HES) loans, and 13% used (or planned to use) a combination of personal finance and HES loan (Figure 13). These results correlate with results from the Phase 2 evaluation which found that householders relied mainly on personal finance; the HES loan requirement for an upfront payment also tended to deter householders from proceeding with measures¹⁵.

¹⁵ Scottish Government and University of Edinburgh (2018) Energy Efficient Scotland Phase 2 Pilots: Final Social Evaluation Report, p.44. Available at EES Phase 2 pilots: final social evaluation report - gov.scot (www.gov.scot)

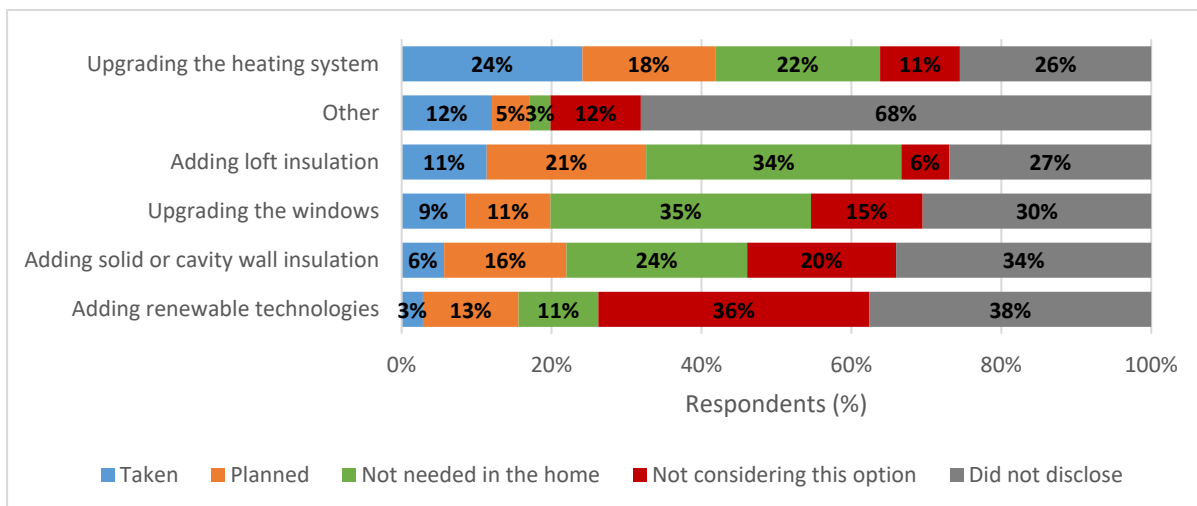


Figure 12. Actions taken or planned by respondents as a result of Energy Efficient Scotland advice

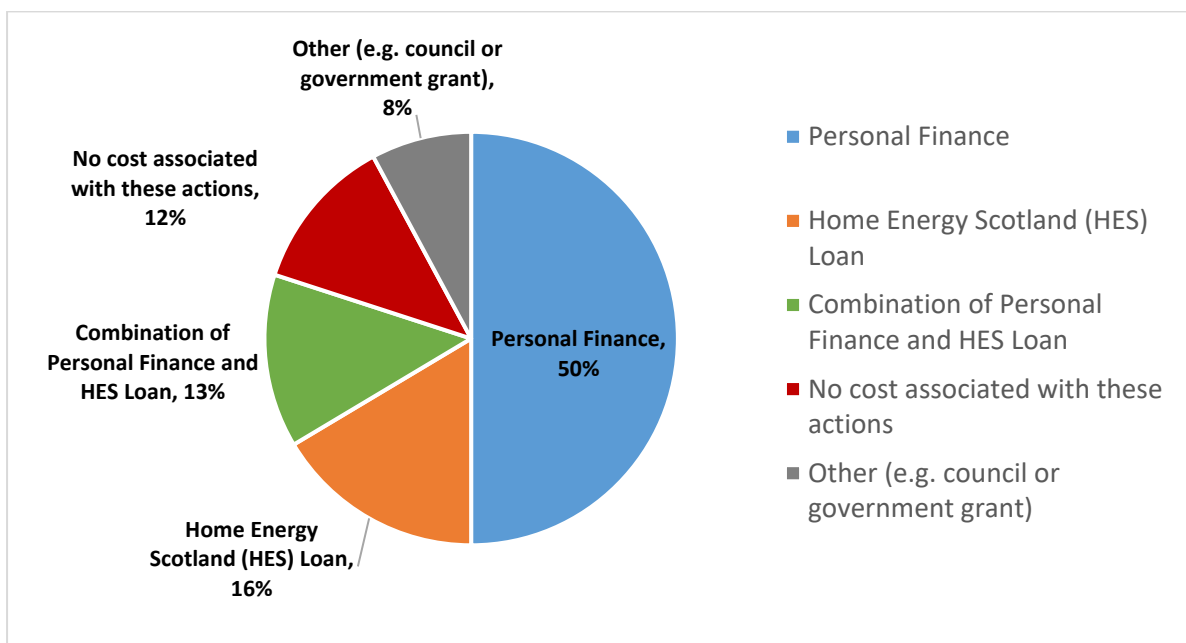


Figure 13. Types of finance for completed or planned energy efficiency projects

Personal finance and Home Energy Scotland loans were used most frequently for upgrading the heating system (Figure 14). For future measures, personal finance was most frequently planned for loft insulation, and Home Energy Scotland loans were most frequently planned for solid or cavity wall insulation.

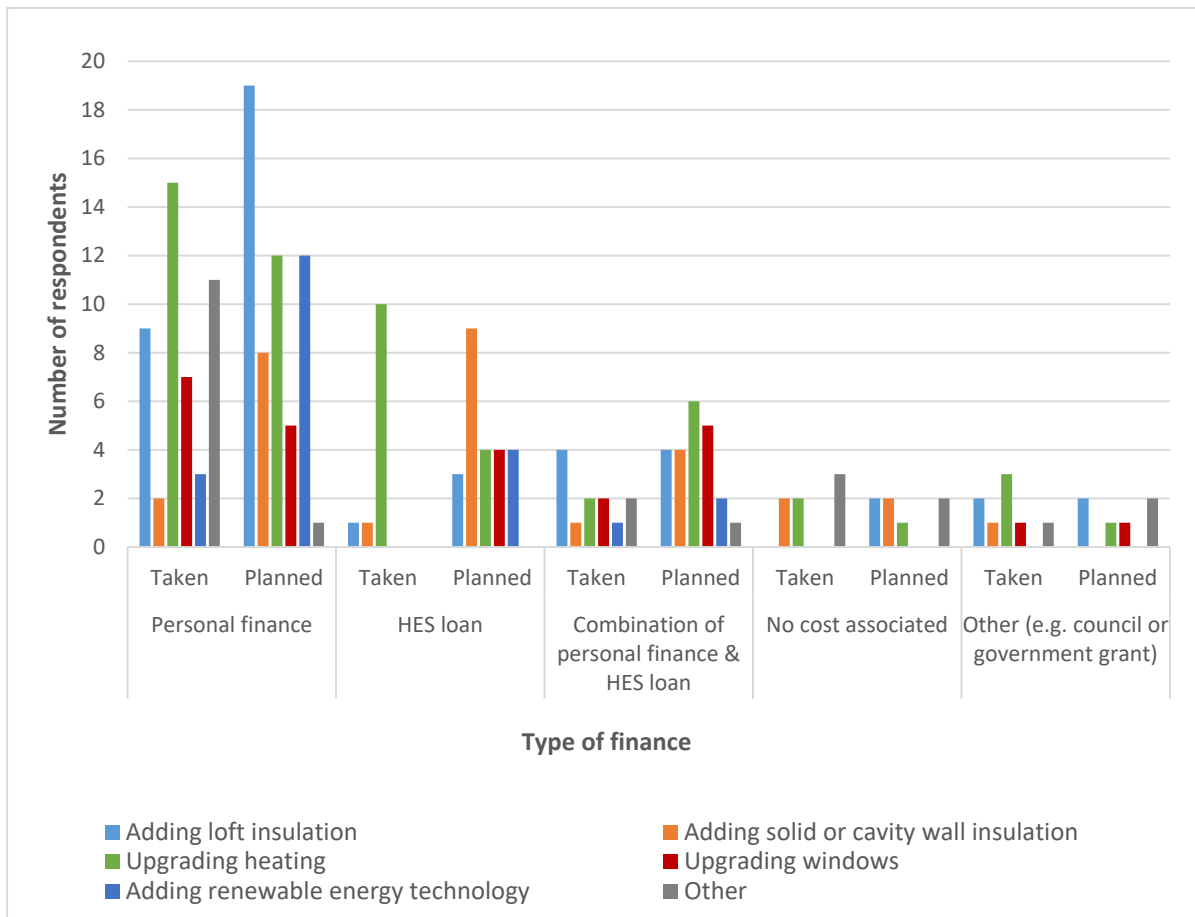


Figure 14. Energy efficiency measures taken or planned (by type of finance)

We can also investigate the different types of finance by engagement strategy (Figure 15). Personal finance was used most by those engaged via drop-in centre and in-home visit, whereas HES loans were used most by those engaged by in-home visit. Combined personal finance and loan was also used most by those engaged by an in-home visit, whereas actions with no additional cost were mostly associated with drop-in centre engagement.

Tentative interpretation of findings suggests that drop-in centres were most likely to stimulate action (specially heating upgrade), resulting particularly in use of personal finance, and respondents considered this method of engagement to be particularly useful (Figure 9). Drop-in centres also appeared to be the most effective for prompting respondents to implement measures with no additional costs, such as turning down thermostats where possible.

On the other hand, in-home surveys were most likely to prompt planned actions, specifically solid or cavity wall insulation, which would be funded by HES loans. This is despite respondents commenting that in-home surveys had limited impact (Figure 11), and suggests that such surveys could stimulate planned change, including through promotion of HES loans.

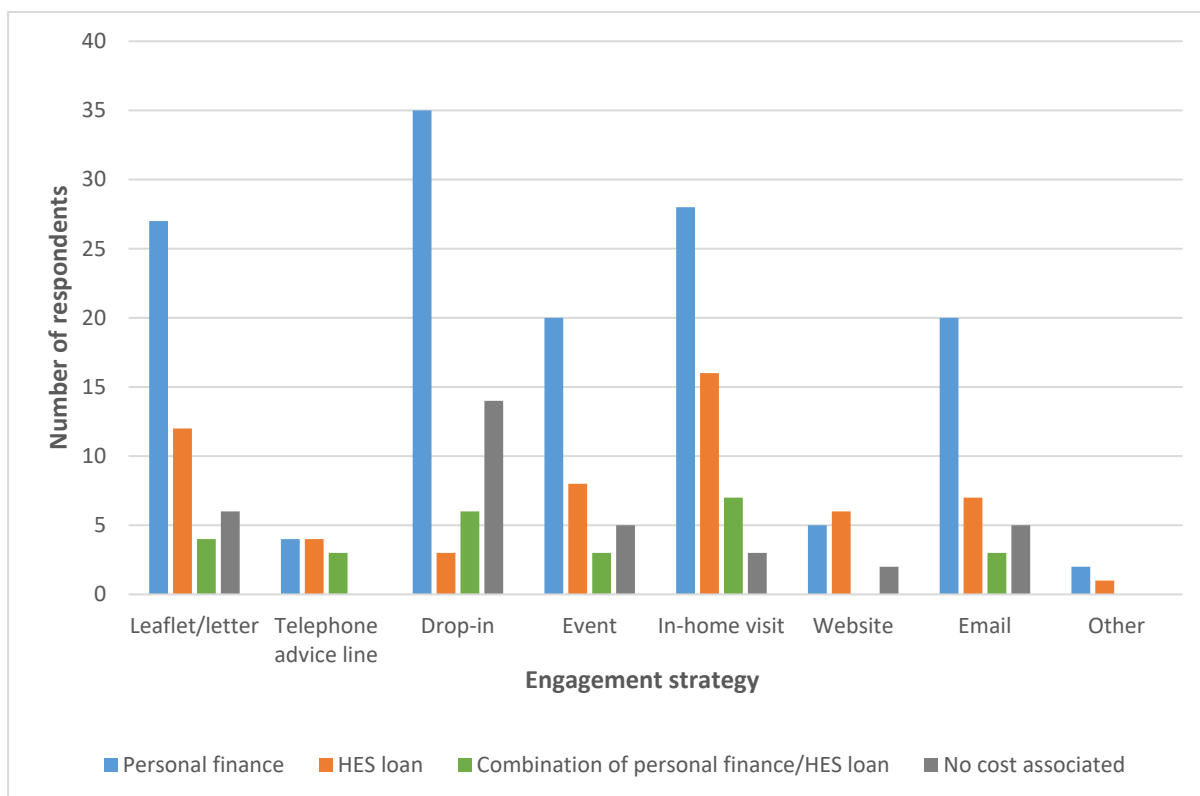


Figure 15. Type of finance used for energy efficiency measures (by engagement strategy)

Barriers to energy efficiency engagement

Despite 89% of respondents finding the Energy Efficient Scotland advice useful, 28% of these had not installed, and did not plan to install, any measures to improve energy efficiency in their homes (Figure 10).

Almost half of these not taking any action¹⁶ stated that cost was the primary factor (Figure 16). Cost is a well-documented barrier to energy efficiency upgrades, and this finding reinforces arguments for accessible incentives and financial support¹⁷. Furthermore, the finding correlates with information about household income, with most respondents in the £0-£29,999 yearly income bracket.

Respondents also commonly stated that there were ‘other’ factors stalling energy efficiency measures; for example, projects were perceived as time consuming; unlikely to provide a suitable return on investment, and respondents were considering several options. On the other hand, only 2% of

¹⁶ For this question, respondents were given the option of stating more than one answer – i.e. provided as many answers as they liked from the list provided. In this instance, the total percentage will not add up to 100%.

¹⁷ UK Government (2011) Behaviour Change and Energy Use. Available at: [2135-behaviour-change-and-energy-use.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/2135/behaviour-change-and-energy-use.pdf) (publishing.service.gov.uk)

respondents thought that the process was too complicated, suggesting that ‘the hassle’ factor blocking action on energy efficiency may be over-stated¹⁸.

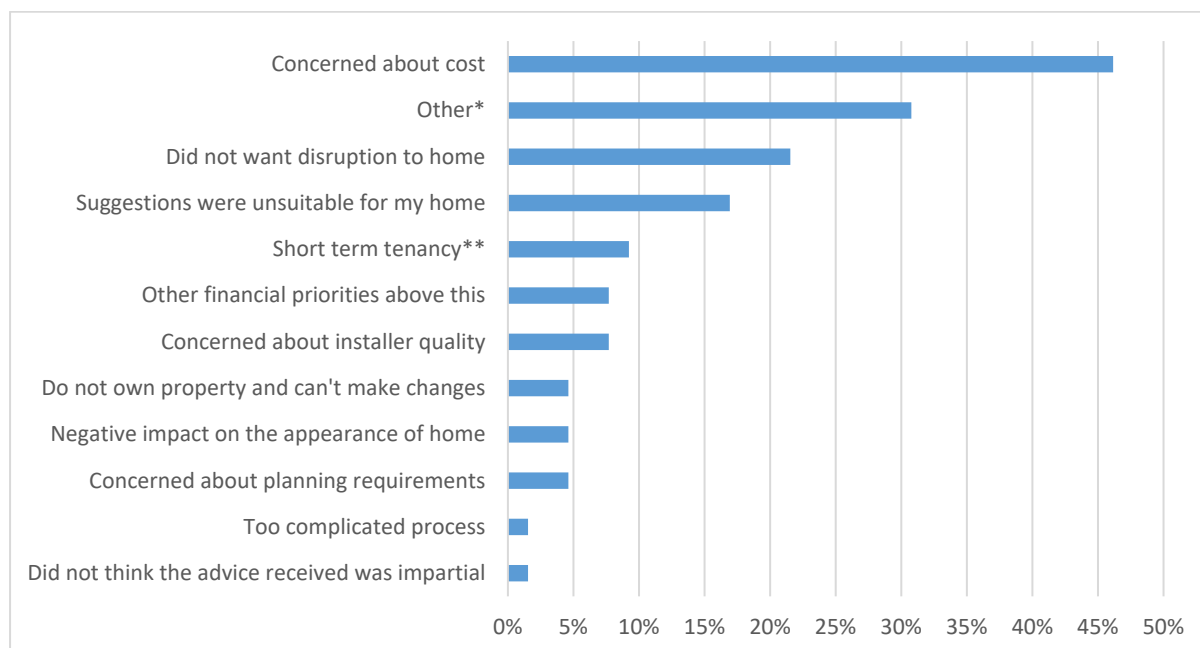


Figure 16. Factors affecting respondents' decision not to go ahead with energy efficiency measures, despite receiving useful advice

*‘Other’ reasons stated by respondents varied, but included time-consuming elements, age, and considering several options. **Short term tenancy and will not be here long enough to see full benefits.

Among the small proportion of respondents who did not find the advice useful (11%), 62% stated that this was because they already knew the advice; 35% answered ‘other’, and 19% stated that the advice was not relevant (Figure 17). This corresponds with previous findings (Figure 5) that respondents had good knowledge of energy efficiency measures, with 75% of respondents ‘very well informed’ or ‘quite well informed’. All respondents understood the advice, and none said that they did not trust it. This positive finding indicates that there were no problems with trust or perceived bias, reinforcing earlier findings (Figure 16).

¹⁸ UK Government (2011) Behaviour Change and Energy Use, p.12. Available at: 2135-behaviour-change-and-energy-use.pdf (publishing.service.gov.uk)

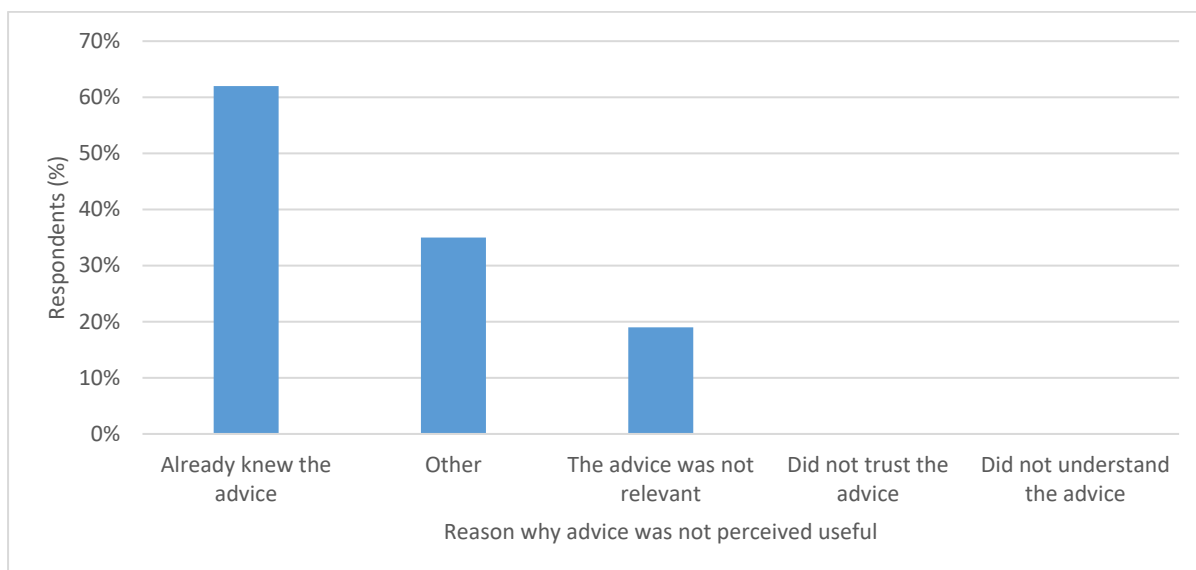


Figure 17. Reasons why respondents did not find the advice received from Energy Efficient Scotland useful.

*'Other' reasons stated by respondents were related to cost implications of projects, respondents waiting a long time for information, and properties in conservation area did not have tailored information

Future energy efficiency engagement

To aid learning and development for future energy efficiency programmes, respondents were asked hypothetical questions regarding engagement and future schemes.

Respondents were asked, if they were looking for energy efficiency advice, which organisations or groups they would trust to provide it¹⁹. The findings show that the most common organisation/group that respondents would trust is Home Energy Scotland (65%), followed by their Local Authority (39%) (Figure 18); there is also reasonable household trust in local authorities, although not perfect²⁰. Only 1% of respondents answered that they would never look for advice about energy efficiency, demonstrating broad willingness to engage.

¹⁹ For this question, respondents were given the option of stating more than one answer – i.e. provided as many answers as they liked from the list provided. In this instance, the total percentage will not add up to 100%.

²⁰ Refer to: Scottish Government, Energy Saving Trust and University of Edinburgh (2018) Energy Efficient Scotland – Phase 1 Pilots Evaluation Final Report, Available at: EES-Pilot-Evaluation-Phase-1-Final-Report1.pdf (heatandthecity.org.uk) and, Scottish Government and University of Edinburgh (2018) Energy Efficient Scotland Phase 2 Pilots: Final Social Evaluation Report. Available at EES Phase 2 pilots: final social evaluation report - gov.scot (www.gov.scot)

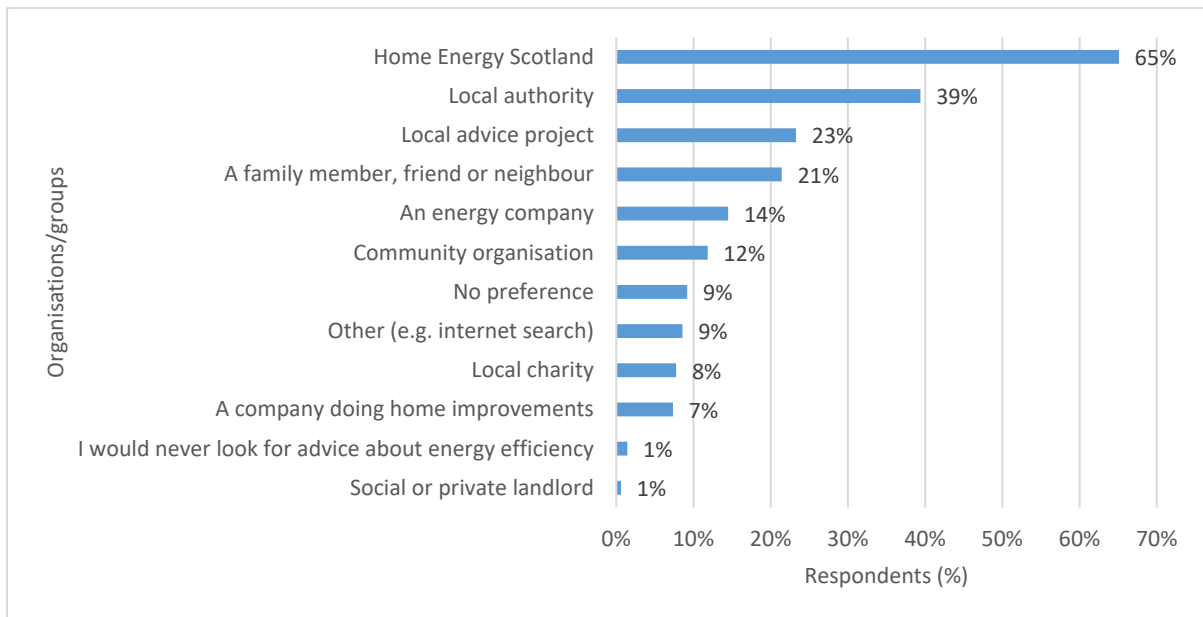


Figure 18. Organisations/groups that households would trust when looking for advice about energy efficiency

The engagement strategy most preferred for future engagement was leaflet or letter, followed by email (Figure 19). These methods did not however score as highly in terms of improvements done or planned (Figure 11), or ‘usefulness’ (Figure 9), or recall (Figure 7). This finding is therefore ambiguous.

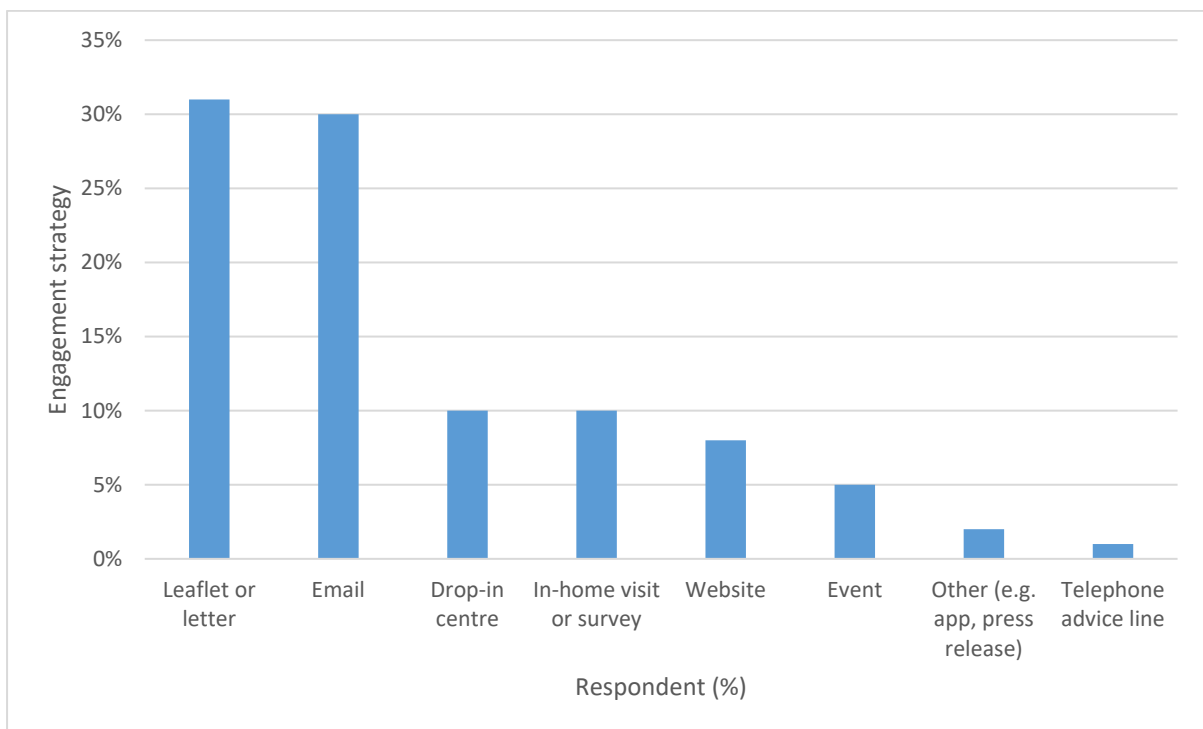


Figure 19. Preferred engagement strategy of future government-run energy efficiency schemes

The subsequent question asked respondents what they would find most useful when deciding about energy efficiency improvements (Figure 20). Most said 'information about whether the work would reduce my energy bills' (78% combined total of 'very useful' and 'extremely useful'). This was closely followed by 'an expert report confirming that measures are suitable for the building' (75% combined total of 'very useful' and 'extremely useful'). This corresponds with views about costs of energy efficiency and indicates the need for more detailed advice tailored to the property.

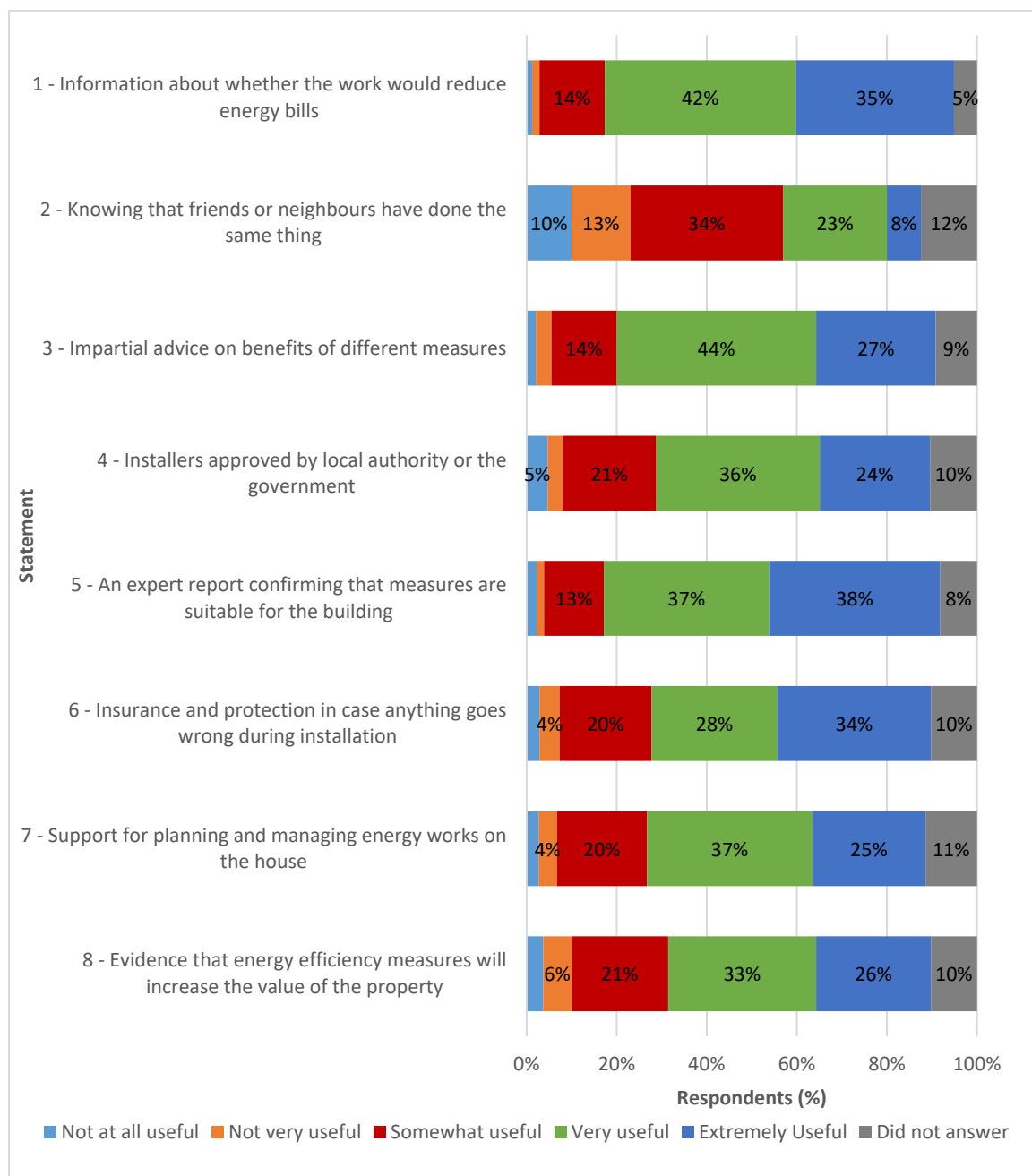


Figure 20. Respondents ranking on what they would find useful when deciding about energy efficiency improvements

Respondents were also asked how they would expect to pay for any future energy efficiency improvements (Figure 21). Most agreed with the statement that they would need a grant to pay for at least some of the works (19% strongly agreed; 33% tended to agree). In addition, just over a third disagreed with the statement that they would use an interest-free loan (21% strongly disagreed; 13% tended to disagree), although close to a third (29%) indicated agreement, indicating the diversity of reactions to borrowing to finance improvements. This corresponds with results showing that 50% of respondents paid, or were planning to pay, using personal finance (Figure 13), and 46% did not proceed with improvements due to concern about costs (Figure 16).

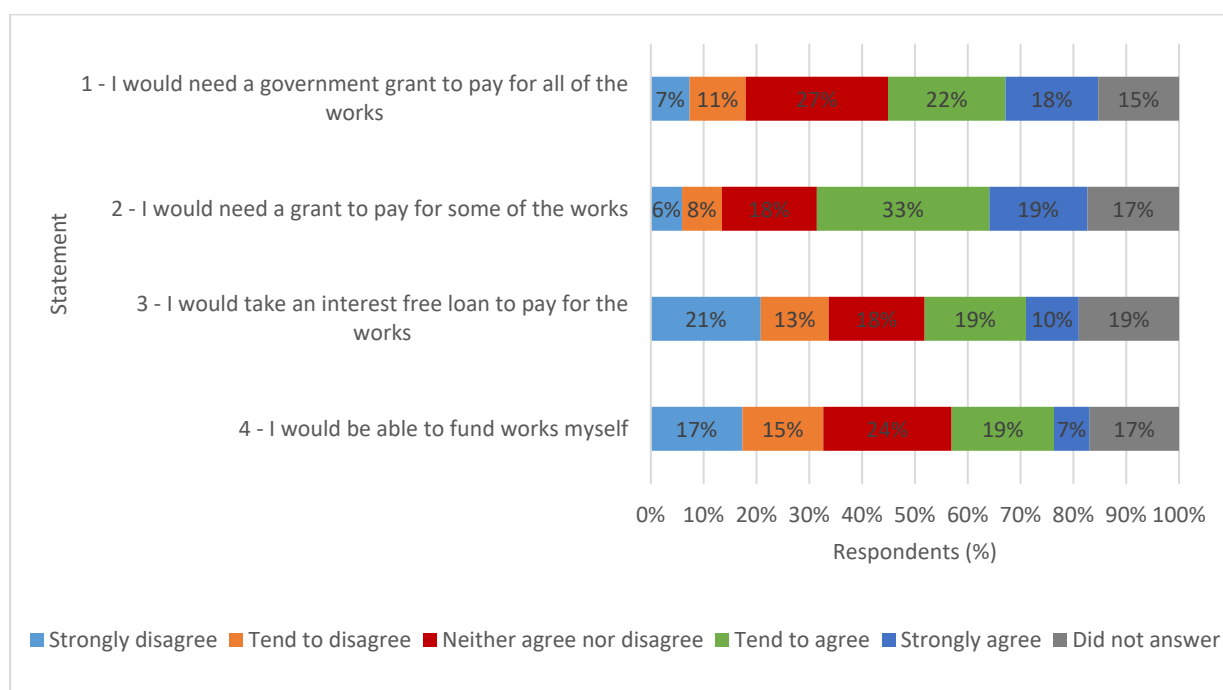


Figure 21. Respondents ranking on how they would expect to pay for any future energy efficiency improvement in their homes

Finally, when asked whether they required more information about improving energy efficiency in their homes, two thirds (67%) answered no; 25% answered yes and 9% did not answer, suggesting that despite apparent general willingness to engage, there is a high degree of inertia over household retrofit.

Conclusions

This evaluation research has demonstrated positive impacts of energy efficiency pilot programmes across eight local authorities in Scotland. The main conclusions and key lessons are summarised below.

Engagement with Energy Efficient Scotland Transition Programme Pilots

Of those respondents who did recall receiving advice, more than three-quarters stated this was from the local authority Energy Efficient Scotland project. This demonstrates significant engagement and public awareness, but needs to be understood in the context of the 13% respondents who did *not* recall contact, indicating that relatively short-term, and limited scale, forms of engagement are insufficient to prompt concerted retrofit by homeowners.

A large majority of respondents (89%) who recalled contact from their local authority's Energy Efficient Scotland programme found the advice useful, and almost two-thirds (61%) had subsequently installed, or planned, measures to improve energy efficiency of their homes.

Although engagement strategies were used in combination, respondents regarded in-home visit or survey (38%); drop-in centre (31%) and leaflet or letter (31%) as most memorable.

Drop-in centres and project websites appeared to have highest proportion of respondents who took subsequent energy efficiency action (such as upgrade of heating which was the most frequent), with most of this group also using personal finance.

In-home surveys proved most effective for planning action (specifically solid or cavity wall insulation), which would be funded by HES loans.

Barriers to energy efficiency engagement

As noted above, a proportion of respondents did not recall receiving advice, despite prior engagement and consenting to research contact. The reasons are uncertain, but may be due to type of engagement, since some forms of advice were less frequently recalled (e.g. telephone advice line), or were not considered useful, and people may not associate these with the local authority project.

For those who did not proceed with energy efficiency measures, despite finding the advice useful, cost was a prominent factor. This is not surprising given the annual income of the majority of respondents was less than £30,000; most respondents stated they would require a grant, rather than an interest-free loan, to pay for some of the work. The primary reason given by

those who did not find the advice useful was that it told them nothing new. This correlates with the fact that most respondents (85%) perceived themselves to be well informed, or quite well informed, about energy efficiency.

Key Lessons

The Energy Efficient Scotland Transition programme had a positive impact on many Scottish households, supporting the value of a long-term national programme to retrofit all buildings. Respondents looked to Home Energy Scotland and local authorities for trustworthy advice, and these findings support that local authorities are in a position to provide energy efficiency advice. Appropriate funding, skills, and staff capacity are needed to stimulate effective provision.

Respondents who engaged via in-home visit or survey were most likely to recall receiving advice. Drop-in centres had the highest percentage of respondents who thought the advice received was useful, although differences between methods were relatively small. The highest proportion of respondents who took action or planned to take action following energy efficiency advice were those engaged via drop-in centre and project website. Whilst there are no major distinctions between the effectiveness of these strategies, the findings suggest that each has strengths as a tool for community engagement, and merit further investigation.

Cost was the main barrier preventing respondents improving energy efficiency and most wanted grant support. Long-term, stable funding schemes, with an element of grant, are hence likely to be critical to increasing the pace and scale of home retrofits.

Lack of *new*, and tailored, information was perceived as a further barrier to action. Many householders stated they were already familiar with information provided, indicating the need for more specific advice, customised to household type, including conservation areas.

Finally, given the difficulties faced by local authorities seeking to engage businesses in action on building retrofit, a regulatory framework is likely to be necessary to oblige participation.

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Appendix 1: Transition Programme Engagement Survey Design

Design and administration of the survey

Survey design followed Dilman's (2008) tailored design method:

- 3 point mail-out with pre-letter; survey letter; and reminder postcard
- Design included logos and branding specific to the different projects (coloured images) (see Table 1 for project label used)
- Named address letters where mail merge has been used
- Survey printed as A5 booklet – easy to interpret, appears short
- Survey clearly labelled, and questions ordered with easier ones at beginning, harder ones in the middle and participant information at the end
- Simple and attractive questionnaire design
- Persuasive communication to encourage participation
- Incentive provided in all cases – usually entry into a prize draw for £50 or £100 voucher (see Table 1)
- The survey was developed in collaboration with all project teams, who commented on at least two drafts of the survey and associated materials. This has helped to ensure that questions and response options were applicable to all projects.

Survey distribution

Distribution was via multiple modes of communication to increase sample coverage. The survey was distributed via both email and post (depending on information that project teams had available about participants; participant contact preferences; and ensuring that all of those that have been part of engagement strategies had the opportunity to take part) (see Table 1 for use of email & post across the different projects). The use of email, where possible reduced survey mail-out costs and the need for using resources for print materials.

Table 1: project specific details used in developing and distributing the survey

Project	Sample population	Survey distribution mode	Incentive	Project label
Fife (Burntisland)	Agreed to be contacted	Email + post	£100 shopping voucher	Change Works in Burntisland
Fife (Levenmouth)	Agreed to be contacted	Email + post		
Highland	Agreed to be contacted	Email + post	An energy goodie bag	EES, managed by The Highland Council
Renfrewshire		Post	£50 Morrisons voucher	Wise Group's Wise About Energy project
Scottish Borders	Agreed to be contacted	Email	£100 shopping voucher	Change Works in Peebles
Energy Agency (East Ayr)	Project contacted	Post	£100 shopping voucher	EES, delivered by the Energy Agency
Energy Agency (D&G)	Project contacted	Post	£100 shopping voucher	EES, delivered by the Energy Agency
Scarf (Ellon)	Project contacted	Post	£100 Amazon voucher	Energy Efficient Ellon
Scarf (Aberdeen)	Project contacted	Post	£100 Amazon voucher	Energy Efficient Aberdeen

Sampling

In this case, the population is *either* those contacted *or* those that have agreed to be contacted (and provided contact details) subsequent to engagement (dependent on processes used in each project) (see Table for different populations used). "...a population size of 100,000 or greater can be considered large, and populations of fewer than 100,000 could be considered small" (Rea & Parker, 2014: 171). Sample size calculations were for a *small population*.

Sample size was calculated using equations for surveys that seek to explore proportional scale variables (e.g. proportion of respondents who took action following energy advice) (see Rae & Parker, 2014: 175). Survey sample size was determined with the aim of achieving a 95% level of confidence with a 5% confidence interval (or margin of error), using the equation:

$$n = \frac{Z_a^2(.25)(N)}{Z_a^2(.25) + (N - 1)ME_p^2}$$

from (Rae & Parker, 2014:169)

Where:

n = sample size; N = population size; Z_a = Z score for various levels of confidence (95% level = 1.96); ME_p = margin of error in terms of proportions (.05)

The target sample size was doubled (or sent to whole population, depending on which is smaller) to account for anticipated 50% response rate (aiming to ensure that the *achieved* sample was sufficient to make statements at 95% confidence level and +/- 5% confidence interval). This only applies to those populations large enough to enable descriptive statistics; all non-domestic cases were small numbers and the survey was sent to the whole group.

Targeting a larger population than needed for the survey is one way to tackle non-response which is problematic for two reasons: 1) reduction in sample size; 2) response bias (those not responding may share particular characteristics so you miss a portion of the population in the sample).

The Transition Programme survey was sent to **3468** households, and **277** businesses.

Table 2: Survey populations and sample size. Based on population data provided by project teams. Populations were those *able to be contacted* on 16th October 2019, not total numbers contacted or engaging with pilots.

Domestic	Population (Able To Contact)	Sample Size	Sample Size Assuming 50% Response Rate
Fife (Burntisland)	310	172	310
Highland	75	63	75
Renfrewshire - Wise Group	544	225	451
Scottish Borders (Peebles)	552	227	454
Energy Agency - East Ayr	880	268	535
Energy Agency - D&G	435	204	409
SCARF - Aberdeenshire (Ellon)	845	264	529
SCARF - Aberdeen City	1561	308	617
NON-DOMESTIC	POPULATION (able to contact)		
Fife (Burntisland)	14	13	14
Fife (Levenmouth)	161	113	161
Highland	4	4	4
Scottish Borders (Peebles)	25	23	25
Energy Agency - D&G	63	54	63
SCARF - Aberdeen City	10	10	10

A sampling frame is as complete a list as possible of the individuals or elements in the survey population (Pike, p.413). Here, the sampling frame is those individuals approached by a (or who approached) a local authority. Those included in the survey have to have been approached only once. Where possible, the sample included both those that sought subsequent information and those that did not. This was not possible if project teams did not have data for every person that approached the project, for example where a hub-type model was used and people 'dropped-in' without leaving their details.

Sample selection followed simple random sampling. Sampled participants were determined by project teams; requested that this was done randomly.

"In SRS designs, the sample mean is an unbiased estimator of the population mean. That is, if a researcher were to select an infinite number of sufficiently large random samples (i.e., at least 20 elements in each sample), the sample means would be normally distributed and the mean of the sample means would be the population mean." (Pike, 416)

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Appendix 2: Example Survey (Scottish Borders)



**Change Works
in Peebles**



Scottish Government
Riaghaltas na h-Alba
gov.scot



Dear Scottish Borders Resident,

Tell us what you think about energy efficiency support in your area for the chance to win a £100 shopping voucher.

Completing the survey takes about 15 minutes. Please follow the instructions in each section and answer the questions as fully as possible. Return your completed survey in the envelope provided – it's already stamped.

Alternatively, you can complete the survey online:

<https://tinyurl.com/y2cs0fqq>

Please complete the survey by (DATE)

As a thank you, you will be invited to **enter a prize draw to win a £100 shopping voucher**; terms and conditions are available here: changeworks.org.uk/legal-and-privacy. If you would like to enter the prize draw, **please include your contact details on the back page** of this survey.

If you have any questions, please email me at: faye.wade@ed.ac.uk or telephone: XXXXXXXXXXXX

SECTION 1

START
HERE

1. Does your home have any of the following?
Please tick one box per row.

	Yes	No	Don't know	Not applicable
Double glazing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loft insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cavity wall insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solid wall insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floor insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Any renewable technologies (e.g. solar PV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Which of these best describes the main form of heating you use at home
(that is the type you use most often)?
Please tick one box.

- Portable gas heater (Calor gas) or paraffin heater
- Plug in electric heater
- Electric storage heaters
- Gas central heating with radiators
- Electric, oil, LPG or biomass central heating with radiators
- Warm air central heating
- Fixed gas fire/gas convector
- Solid fuel including wood chips / pellet, open grate or enclosed grate/stove
- Heat pump systems
- Other (*please write what*):

- Don't know

3. How well informed do you feel about ways to improve the energy efficiency
of your home?
Please tick one box.

- Very well informed
- Quite well informed
- Not well informed

- Not at all informed
- Don't know

4. Have you ever looked for advice about improving the energy efficiency of your home?

Please tick one box.

- Yes
- No
- I have found advice by chance
- Don't know

5. If you were looking for advice about energy efficiency, which organisations or groups would you trust to provide it?

Please tick as many as apply.

- Local Authority
- Home Energy Scotland
- Social or private landlord
- Local charity
- Community organisation
- Local advice project
- A family member, friend or neighbour
- A company doing home improvements
- An energy company
- No preference
- I would never look for advice about energy efficiency
- Other (*please write who*):

6. Have you received advice in the last 12 months about how to improve the energy efficiency of your home?

Please tick one box.

- Yes → proceed to Question 7
- No - I haven't received advice → skip to SECTION 2
- I can't remember whether I have or haven't received advice → skip to SECTION 2

IF INFORMATION WAS RECEIVED

7. Was this advice from Change Works in Peebles?

Please tick one box.

- Yes → proceed to Question 8
- No – I've heard of Change Works in Peebles but I have not received advice from them → skip to SECTION 2
- No – I've never heard of Change Works in Peebles → skip to SECTION 2
- I can't remember → skip to SECTION 2

8. How did you receive this advice from Change Works in Peebles?

Please tick as many as apply.

- Leaflet or letter
 - Telephone advice line
 - Drop-in centre (or 'hub')
 - Attended event
 - In-home visit or survey
 - Website
 - Email
 - Other (*please write how*):
-

9. Was the advice that you received from Change Works in Peebles useful?

Please tick one box.

- Yes → proceed to question 10
- No → skip to question 14

10. As a result of the advice you received from Change Works in Peebles, have you installed or planned any measures to improve the energy efficiency of your home?

Please tick one box.

- Yes → proceed to question 11
- No → skip to question 13

IF ACTION WAS TAKEN

11. What actions have you taken or planned as a result of this advice from Change Works in Peebles?

Please tick one box per row.

	Taken	Planned	Not needed in my home	Not considering this option
Adding loft insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adding solid or cavity wall insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upgrading your heating system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upgrading your windows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adding renewable technologies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please write what):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. How have you financed, or how do you plan to finance, these actions?

Please tick one box.

- Personal finance
 - Home Energy Scotland (HES) loan
 - Combination of personal finance and HES loan
 - There was no cost associated with these actions
 - Other (*please explain*):
-

→ Please go to SECTION 2

13. If you have received useful advice from Change Works in Peebles, but decided not to go ahead with any energy efficiency measures, which (if any) of the following factors affected your decision?

Please tick all that apply.

- Concerned about the cost
- Did not want disruption to my home
- Did not think the advice I received was impartial
- Concerned about installer quality
- Decided that the suggestions were unsuitable for my home
- Concerned about planning requirements
- There are other things that are more important to spend money on

- Thought the measures would have a negative impact on the appearance of my home
- I don't own the property and can't make changes
- I won't live in the home long enough to see the full benefit
- The process looked too complicated
- Other (*please explain*): _____

→ Please go to SECTION 2

If advice was not useful

14. Why did you not find the advice received from Change Works in Peebles to be useful?

Please tick all that apply.

- I did not understand it
- I did not trust it
- It was not relevant to me
- I already know what it was telling me
- Other (*please explain*): _____

→ Please go to SECTION 2

SECTION 2

15. If the government run energy efficiency schemes in the future, how would you prefer to receive information about them?

Please tick one box.

- Leaflet or letter
- Email
- Telephone advice line or receive phone call
- In-home visit or survey
- Visit a drop-in centre (or 'hub')
- Access a website
- Attend an event
- Use an app
- Other (*please explain*): _____

16. Which of the following would you find useful when deciding about energy efficiency improvements?

Please tick one box per row.

	Not at all useful	Not very useful	Somewhat useful	Very useful	Extremely useful
Information about whether the work would reduce my energy bills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowing that friends or neighbours have done the same thing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impartial advice on benefits of different measures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installers approved by my local authority or the government.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An expert report confirming that measures are suitable for the building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insurance and protection in case anything goes wrong during installation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support for planning and managing energy works on my house.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Evidence that energy efficiency measures will increase the value of my property.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. How would you expect to pay for any future energy efficiency improvements to your home?

Please tick one box per row.

In order to install energy efficiency measures...	Strongly Disagree	Tend to disagree	Neither agree nor disagree	Tend to agree	Strongly agree
...I would need a government grant to pay for all of the works.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...I would need a grant to pay for some of the works.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...I would take an interest-free loan to pay for the works.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...I would be able to fund works myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Do you need more information about improving the energy efficiency of your home?

Please tick one box.

Yes (*please explain briefly what you need:* _____)

No → Please go to SECTION 3

If you would like to receive more information about improving the energy efficiency of your home, please enter your preferred contact details (address, telephone number or email address) below, so that the Change Works in Peebles team can provide this.

SECTION 3

Respondent Information

This section helps us understand how different people use energy efficiency information.

19. How would you describe your gender?

Please tick one box.

- Male
- Female
- In another way
- Prefer not to say

20. Please select the age group you fall into.

Please tick one box.

- | | |
|-----------------------------------|--|
| <input type="checkbox"/> Under 26 | <input type="checkbox"/> 56-65 |
| <input type="checkbox"/> 26-35 | <input type="checkbox"/> 66 or over |
| <input type="checkbox"/> 36-45 | <input type="checkbox"/> Prefer not to say |
| <input type="checkbox"/> 46-55 | |

21. What is the yearly income of your household?

Please tick one box.

- £0 - £29,999
- £30,000 – £39,999
- £40,000 – £49,999
- £50,000 - £59,999
- £60,000 - £69,999
- £70,000 - £79,999
- £80,000 - £89,999
- £90,000+
- Prefer not to say

22. Which of the following best describes your tenure?

Please tick one box.

- I own and live in the property
- I own the property but rent it to a tenant
- I rent the property from a private landlord
- I rent the property from the council or a social landlord
- Other (*please explain*): _____

23. Which type of area do you live in?

Please tick one box.

- City
- Town
- Village
- Dispersed rural area

Please give the first half of your postcode (usually 2 letters and 1 number, e.g. EH1): ____ Thank you

Thank you for taking the time to complete this questionnaire; the information you provided is much appreciated and will support Scottish Government's development of future energy saving programmes.

Would you like to be entered into a prize draw for the chance to win a £100 shopping voucher?

Please tick one box.

Yes → please enter your preferred contact details (address, telephone number or email address) here:

 No

If there is anything else you would like to tell us about, please do so in the space provided below.

Please return your completed questionnaire in the stamped envelope provided to:

Faye Wade

Chisholm House, High School Yards, Edinburgh, EH1 1LZ

How your data is protected

The Data Protection Act 1998 (“the Act”) regulates the processing of personal data, that is information about and relating to living identifiable individuals. It is not a requirement to provide personal data for this survey; if you have included personal details these will be stored securely by the University of Edinburgh, and used only for the purposes of this project. The information collected will be sent directly to the team at the University of Edinburgh, and treated in strict confidence. If you requested further information in Question 18 or to be included in the prize draw, then the contact details you provided will be shared with the Change Works in Peebles team for them to follow up. The data and analysis may be made available for research purposes in the future beyond the end of the project.

Scottish Government are funding this programme and the University of Edinburgh are considered the **Data Controller**. The designated **Data Protection Officer** can be contacted at the University of Edinburgh by writing to faye.wade@ed.ac.uk.

Appendix 3: Background Data

Figure 1. Respondents by age group (grouped by local authority)

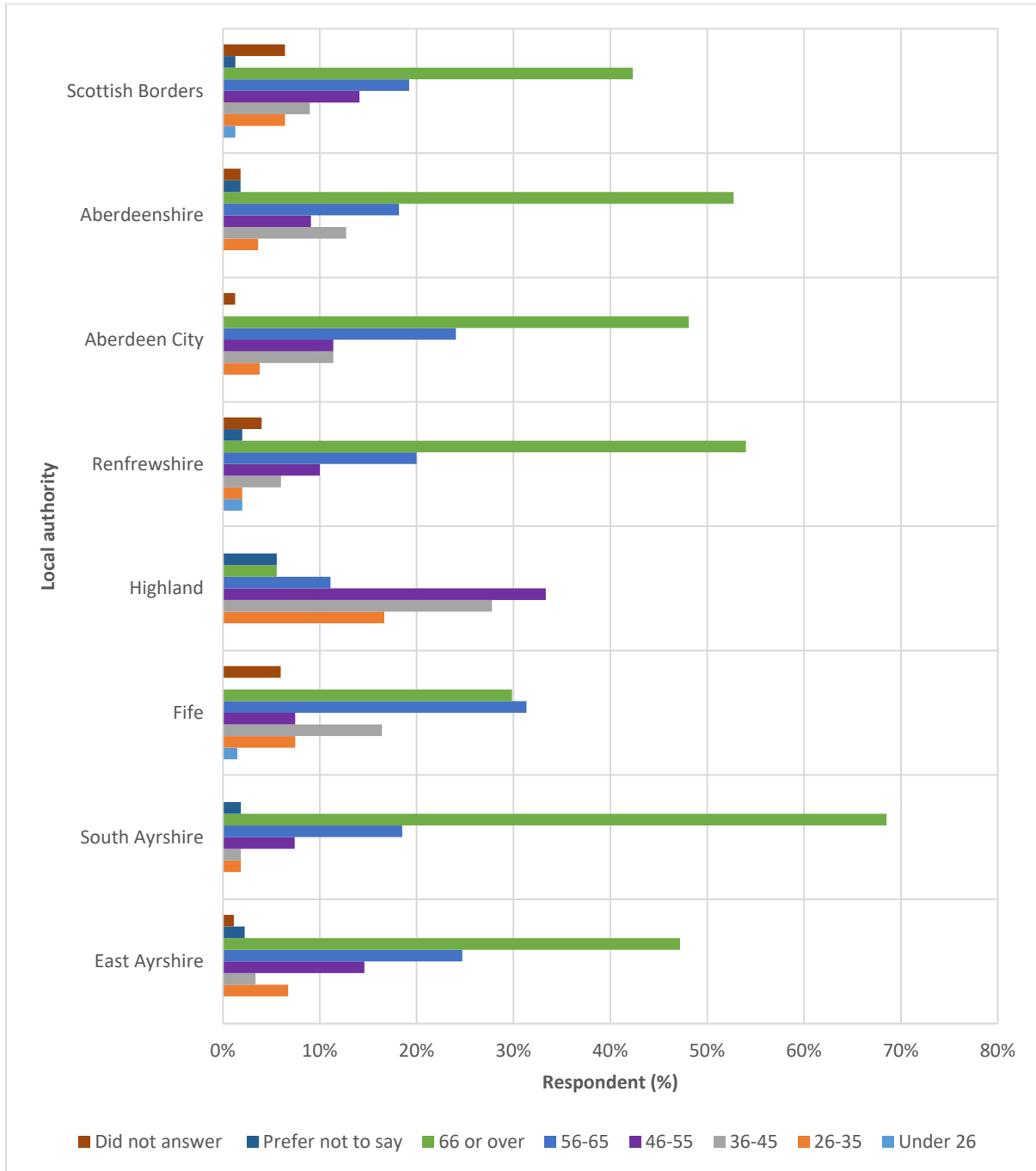


Figure 2. Total respondents by household income

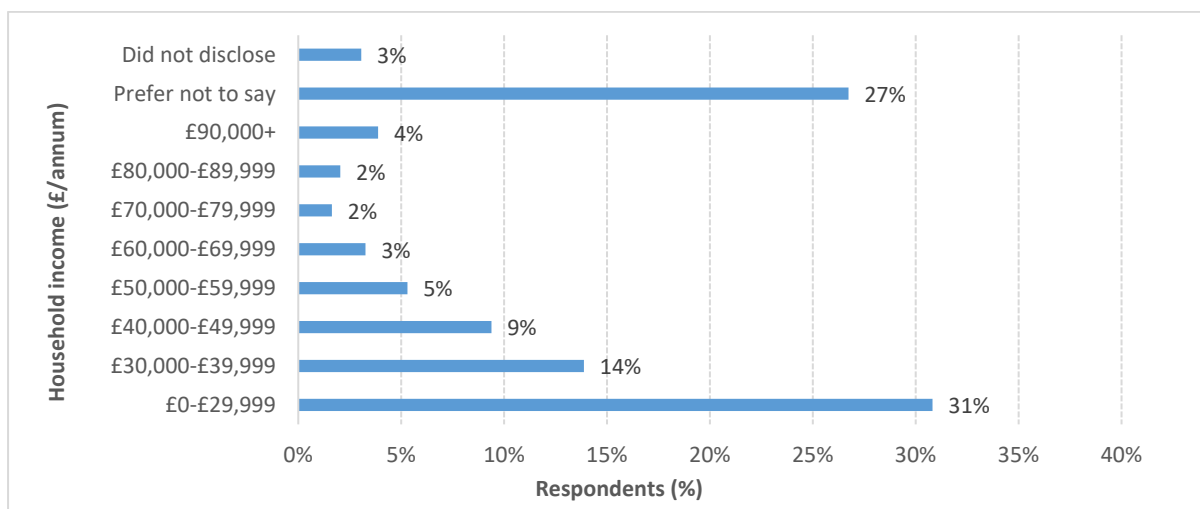
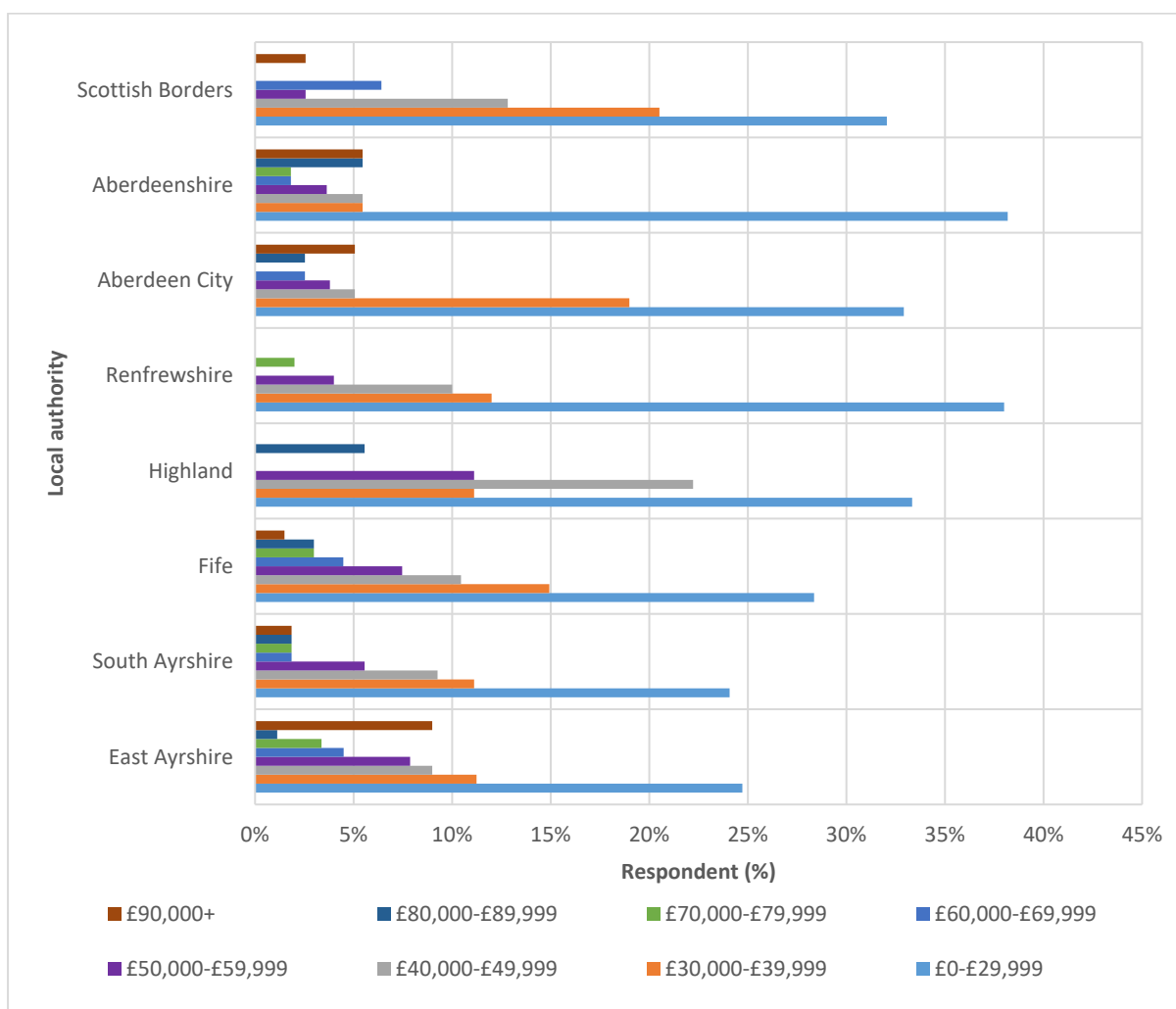


Figure 3. Respondents by yearly household income (grouped by local authority)*



*30% of respondents did not disclose/preferred not to say this information and have therefore been excluded from the data chart.

Figure 4. Respondents by locality (across all local authorities)

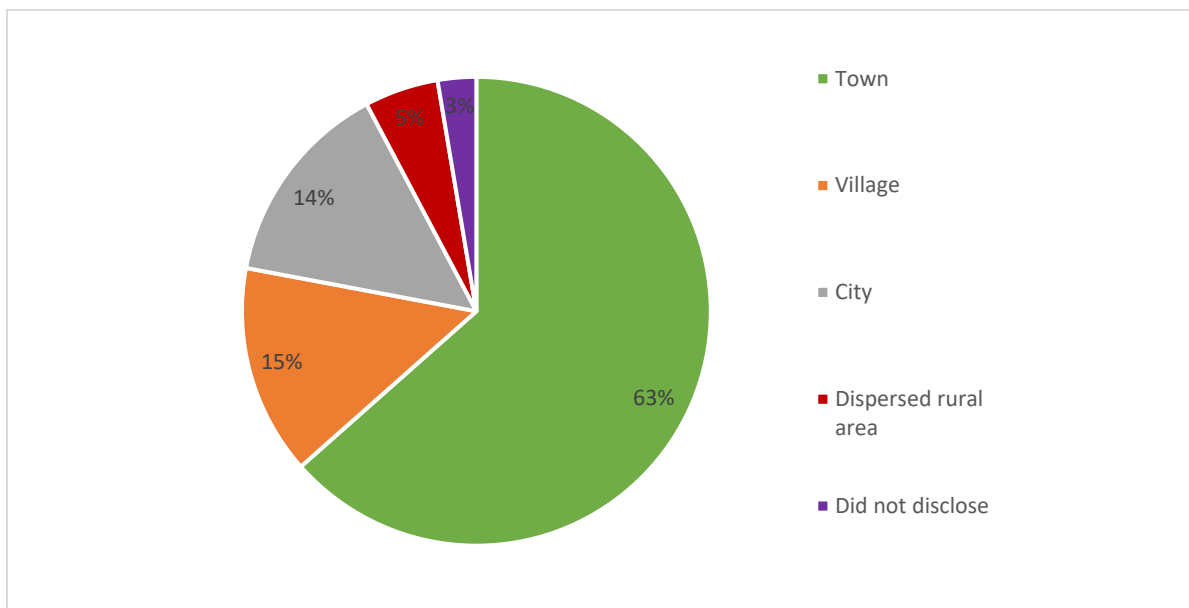


Figure 5. Tenure type (across all local authorities)

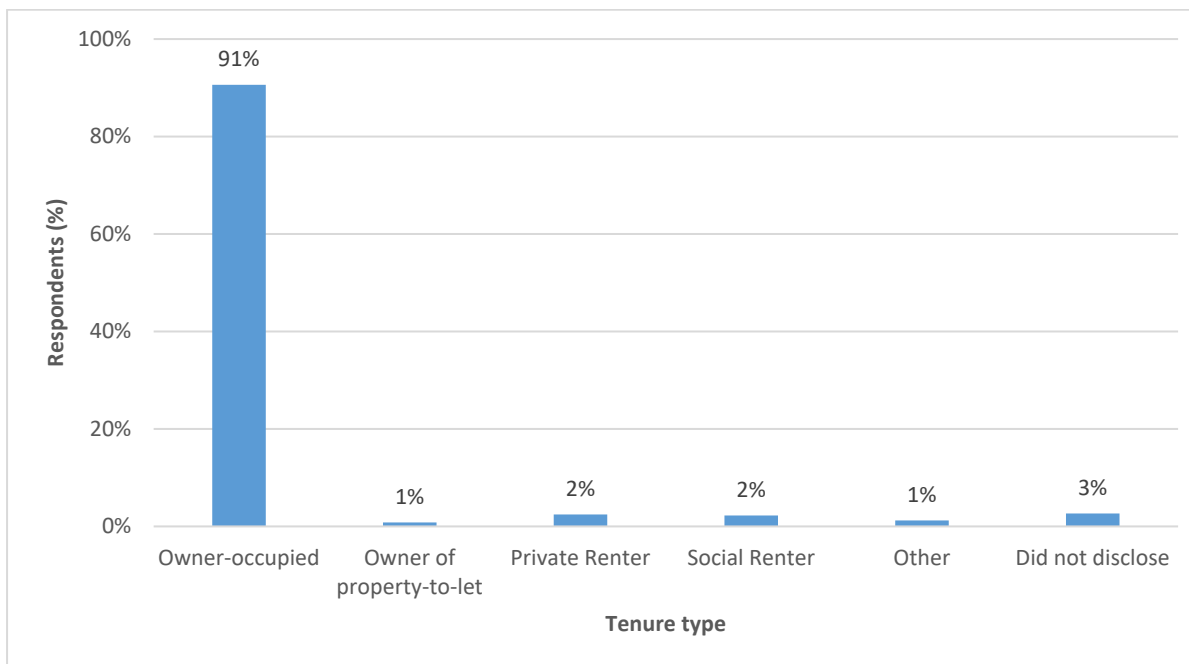


Figure 6. Existing Energy Efficiency Measures in Respondents' Homes (across all local authorities)

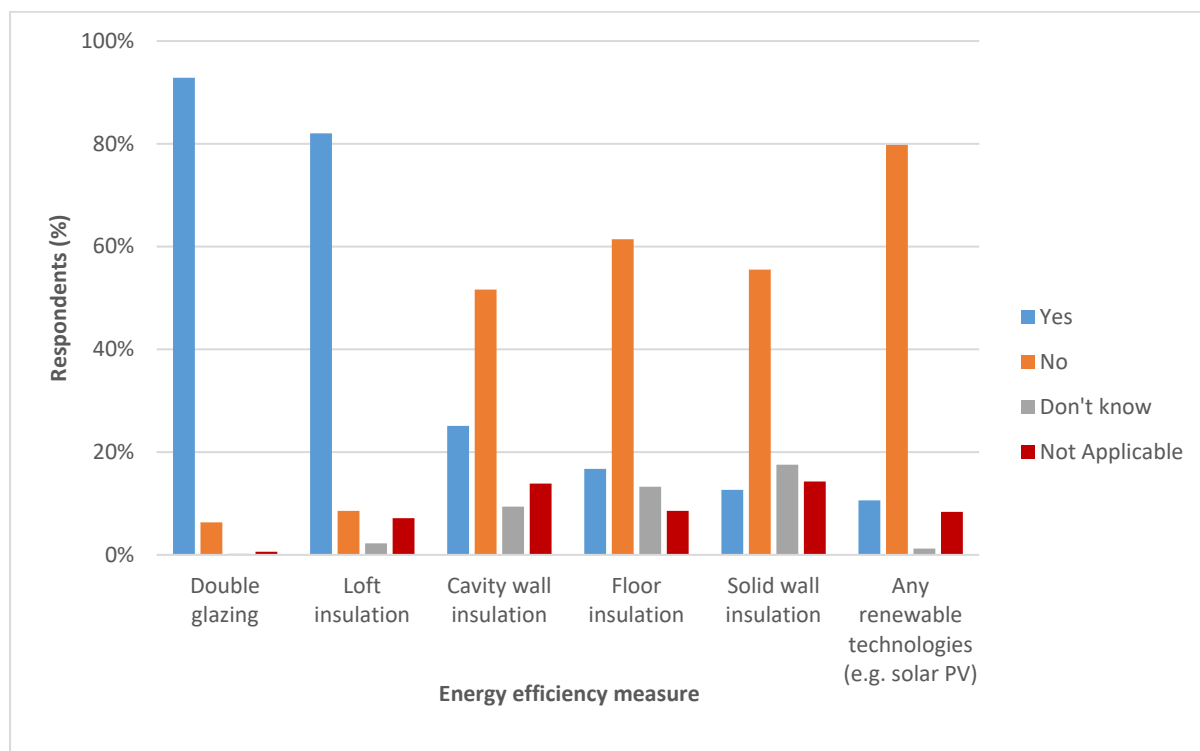
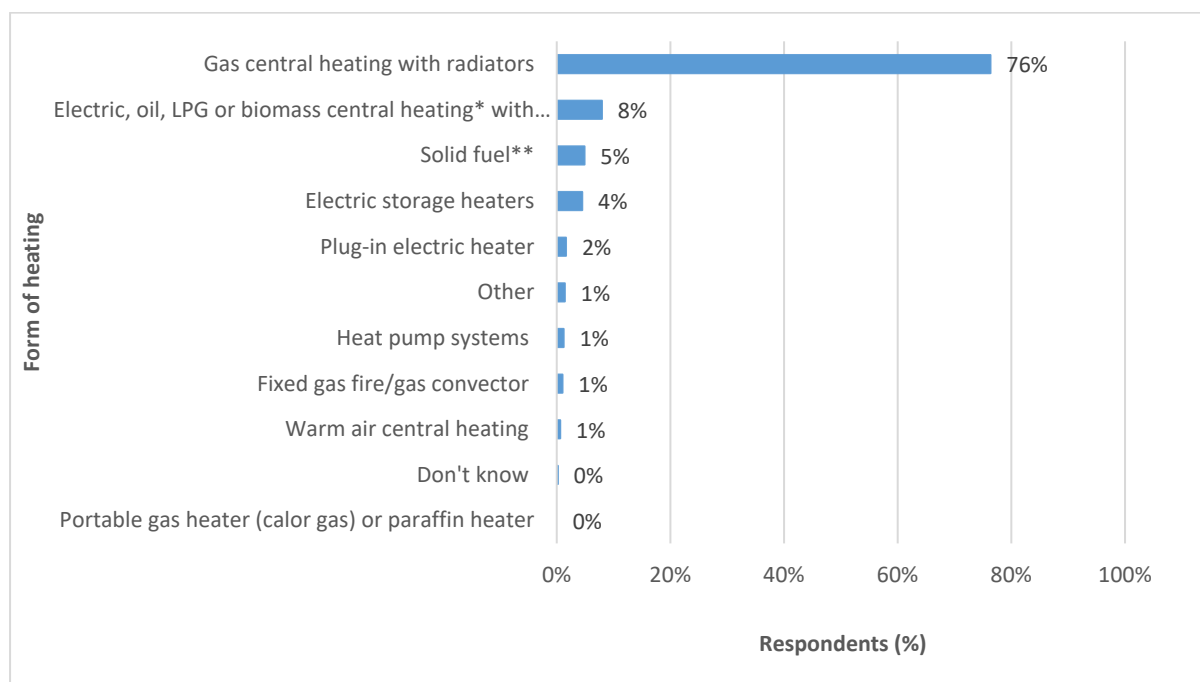


Figure 7. Most frequent forms of heating in households (across all local authorities)



*with radiators

**including wood chips / pellet, open grate or enclosed grate/stove

Figure 8. Most frequent forms of heating in households (grouped by local authority)

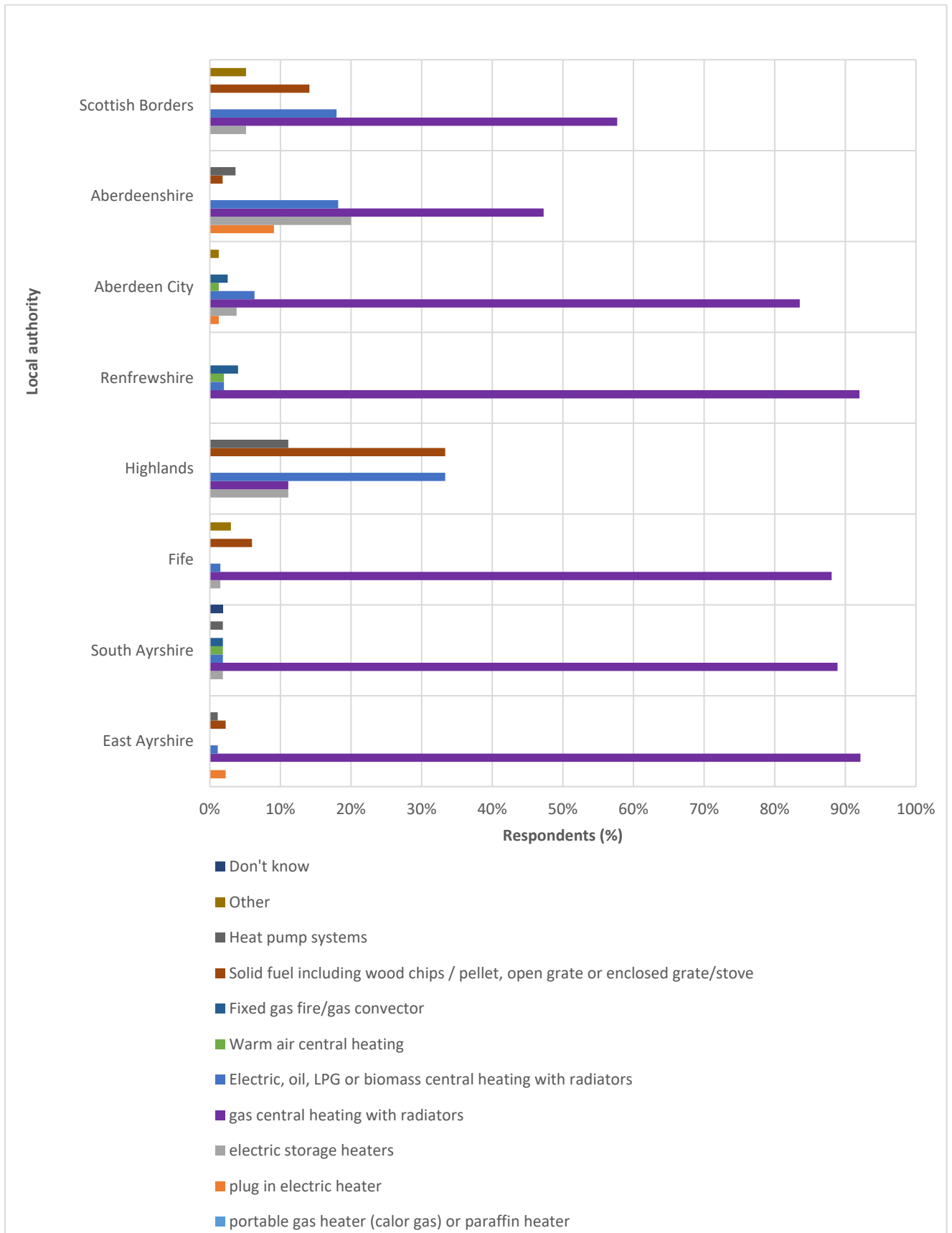


Figure 9. Respondents on how well informed they feel about ways to improve energy efficiency in their homes (grouped by local authority)

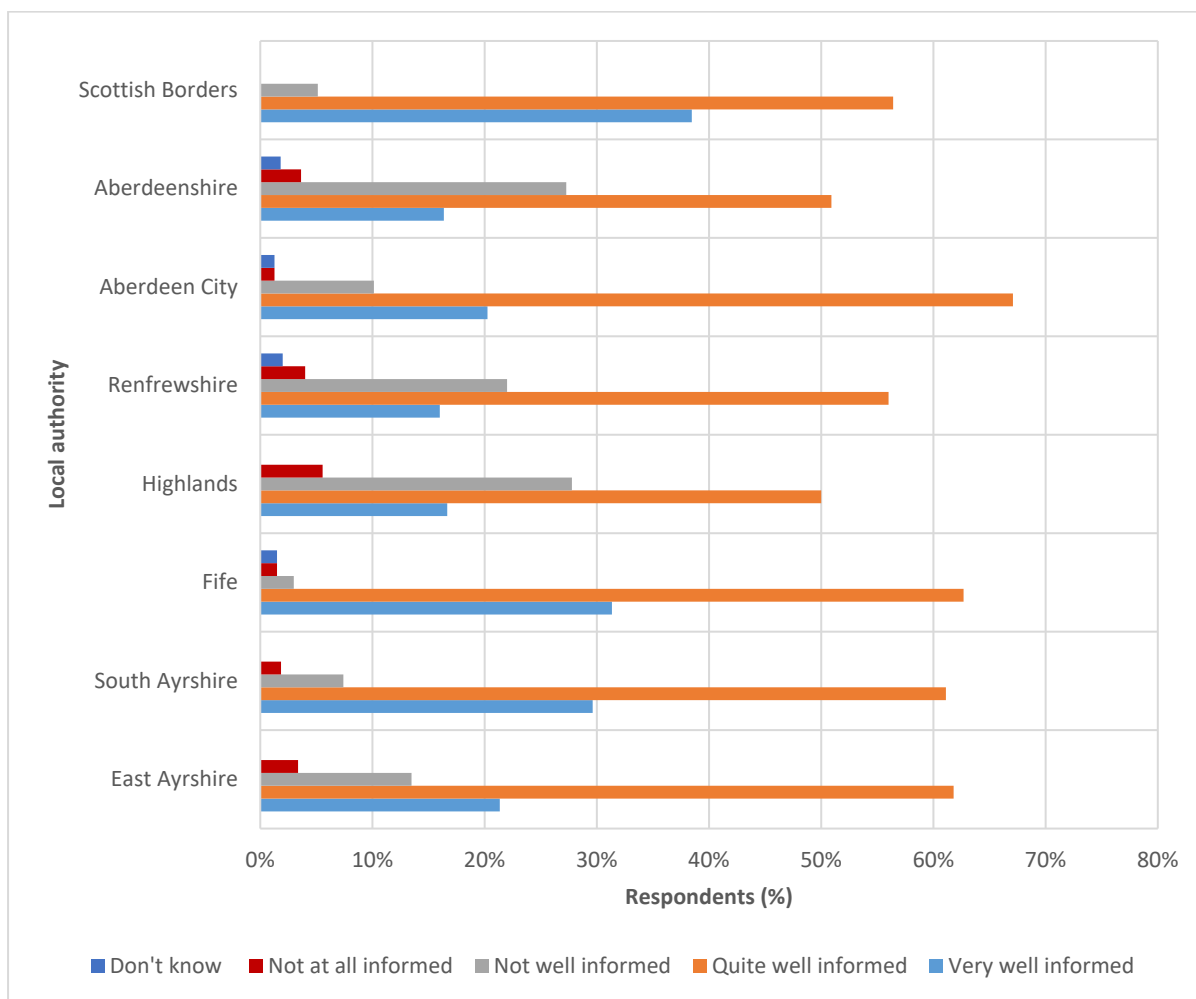


Figure 10. The extent to which respondents have ever sought advice for improving energy efficiency in their homes (across all local authorities)

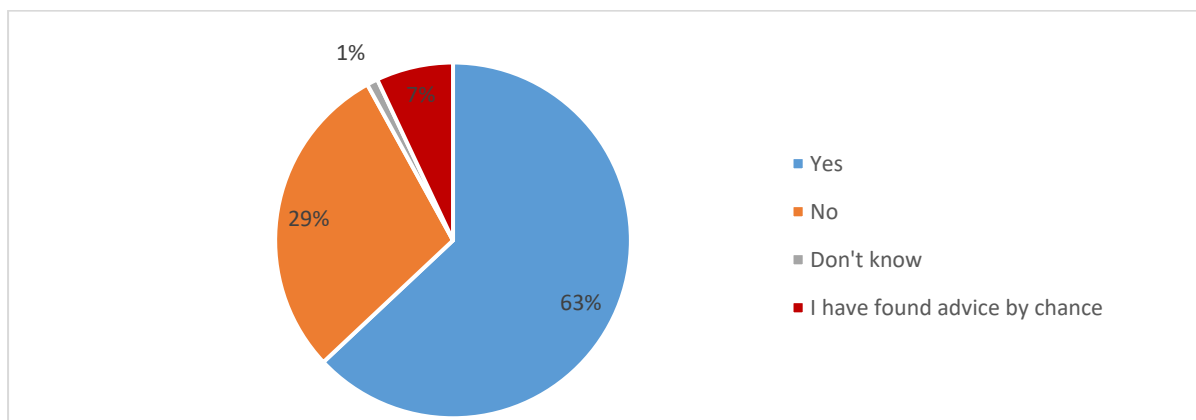
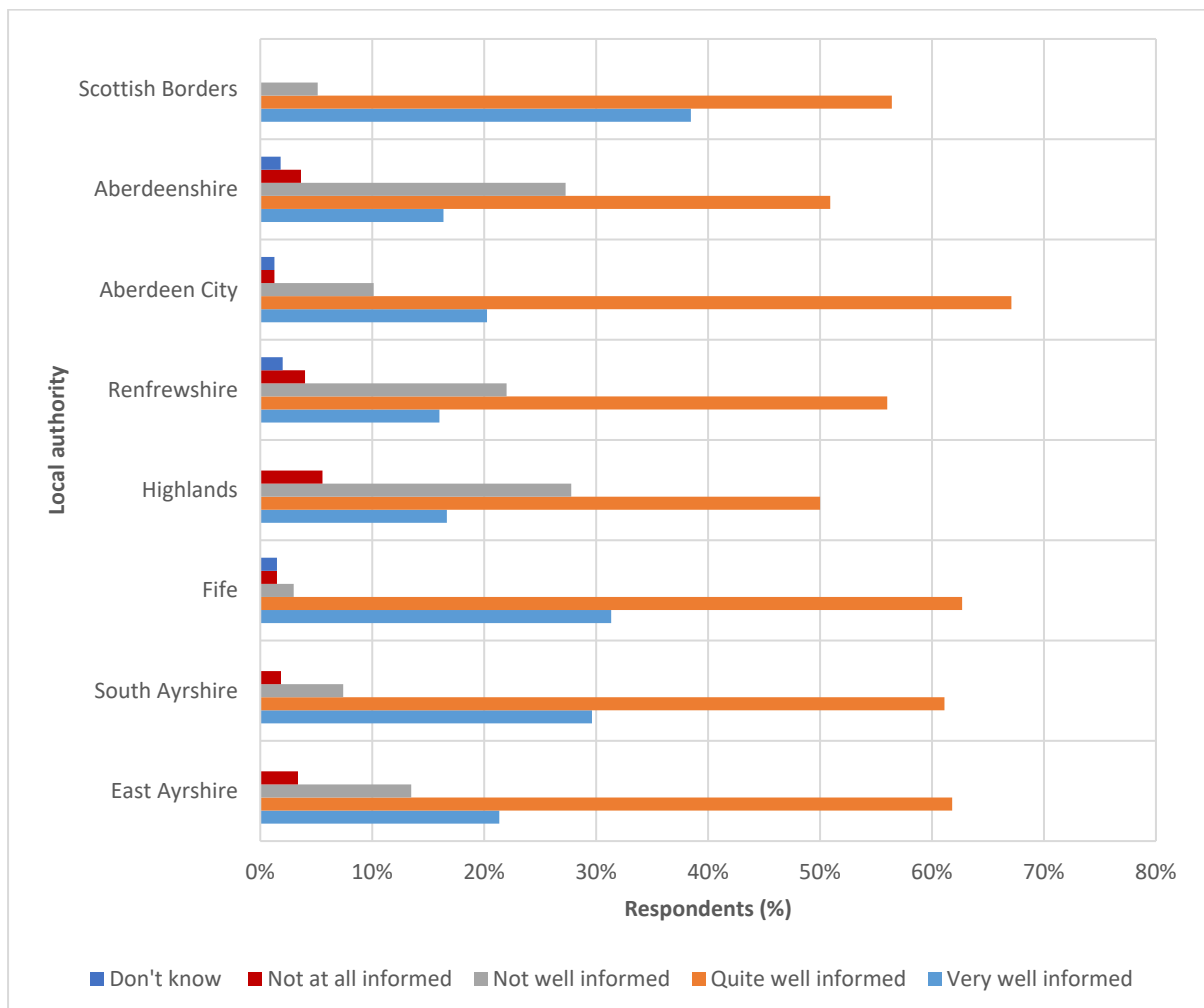


Figure 11. Self-reported knowledge of respondents who ever sought advice for improving energy efficiency in their homes (grouped by local authority)





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