

# Overcoming barriers and increasing uptake of home decarbonisation schemes in the UK

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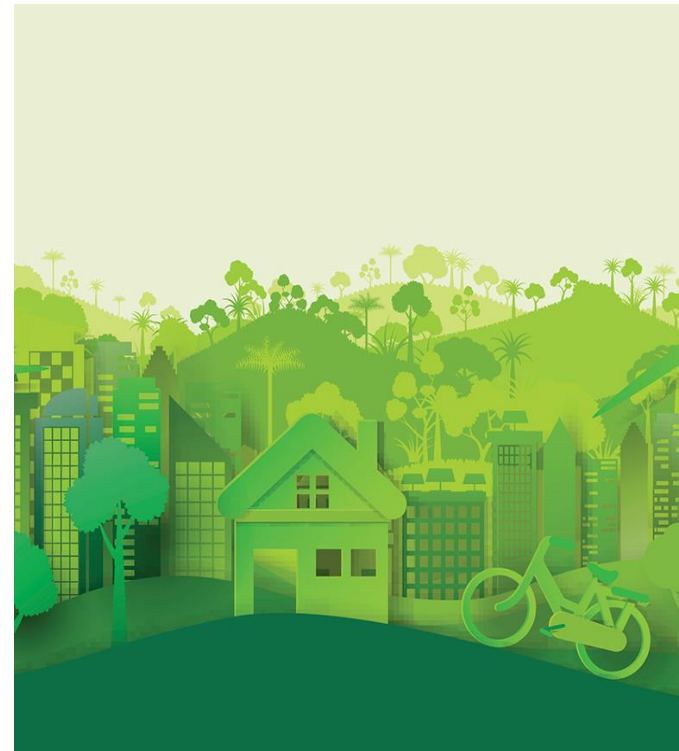
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# Introduction to the project

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- Surrey County Council's (SCC) Climate Change Delivery Plan sets ambitious targets to reduce emissions by 20% by 2025 from a 2018 baseline
- Emissions from homes contribute 31% of total emissions currently in Surrey of this about 22% are generated from heating homes making decarbonisation of homes in Surrey a major step towards meeting the targets of the Climate change delivery Plan
- SCC has been supporting residents through the Green Homes Grant Local Authority Delivery (GHGLAD) scheme by providing grants to support them in implementing energy efficiency and low carbon energy solutions. However, uptake of support from the scheme, and other similar funding packages, has been lower than hoped
- **The purpose of this research is to assess the challenges that affect uptake of home decarbonisation schemes by eligible residents and to develop mechanisms and engagement approaches to improve uptake in the future**



# Methods

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Undertook a comprehensive review of the literature on the uptake of grants for home decarbonisation



Quantitative analysis exploring which households have signed up to the scheme and factors relating to dropouts



Semi-structured interviews with residents who have engaged with the scheme

# Quantitative data analysis overview

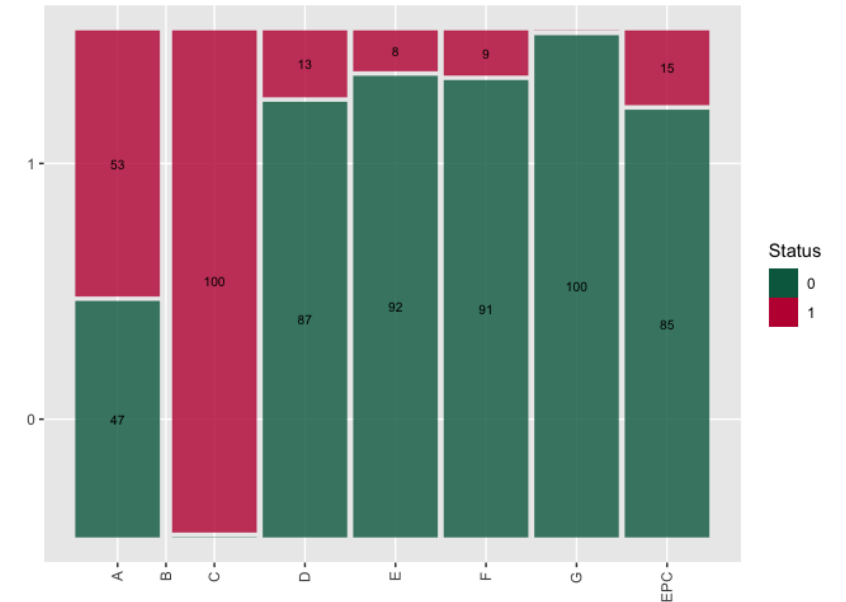
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- The quantitative element of the study sought to ask if there were any patterns in which households proceeded right through the pipeline of installation and which dropped out at each of various points.
- We knew in advance that not all households completed their installations, and had data on how many were classified as having left the programme for different reasons. Following discussion with ThamesWey and Surrey County Council, it was agreed that we would view these various 'exit points' as a pipeline of progress, and that the logical order for these was as follows:
  - Start with the initial pool of homes
  - Exit point #1 Remove any ineligible homes
  - Exit point #2 is the homes that actively cancel their installations before they go ahead
  - Exit point #3 is the homes that passively lose contact before installation
  - This leaves the final set of homes who have an installation
- Our analysis used a series of logistic regression analyses to ask, at each of these exit-points, whether we could predict which households would drop out of the pipeline and which would proceed to the next stage.

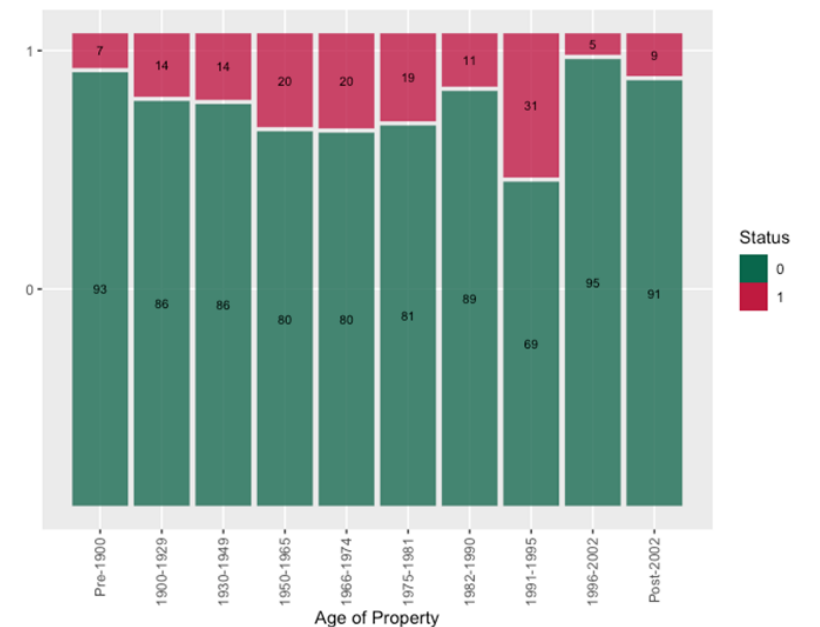
# Insights from the quantitative data analysis

- Less than half the homes at the start of this process went all the way through to installation.
- Exit point #1 – key factors:
  - EPC rating – this was expected due to the eligibility criteria of the grants
  - Property age - This requires further investigation, but interesting to note that properties from the early 1990s seemed to have a significantly higher level of ineligibility

Which installs are INELIGIBLE?

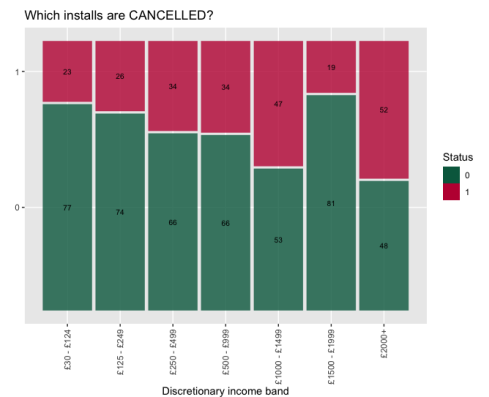
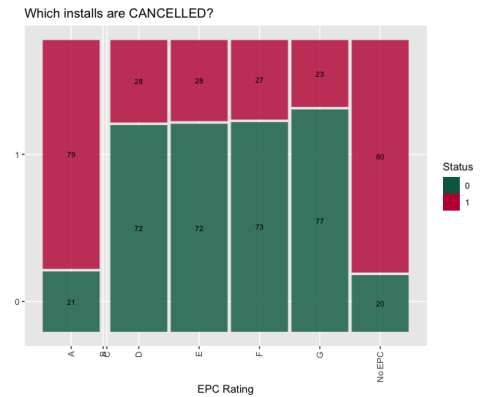
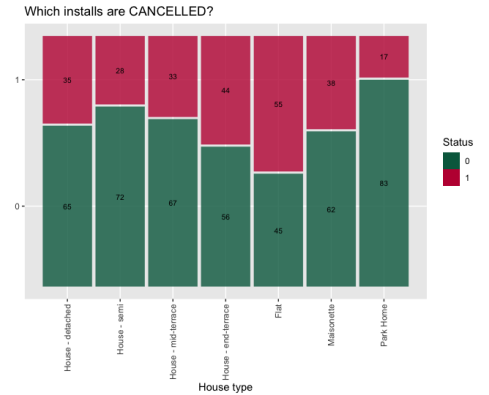


Which installs are INELIGIBLE?



# Insights from the quantitative data analysis

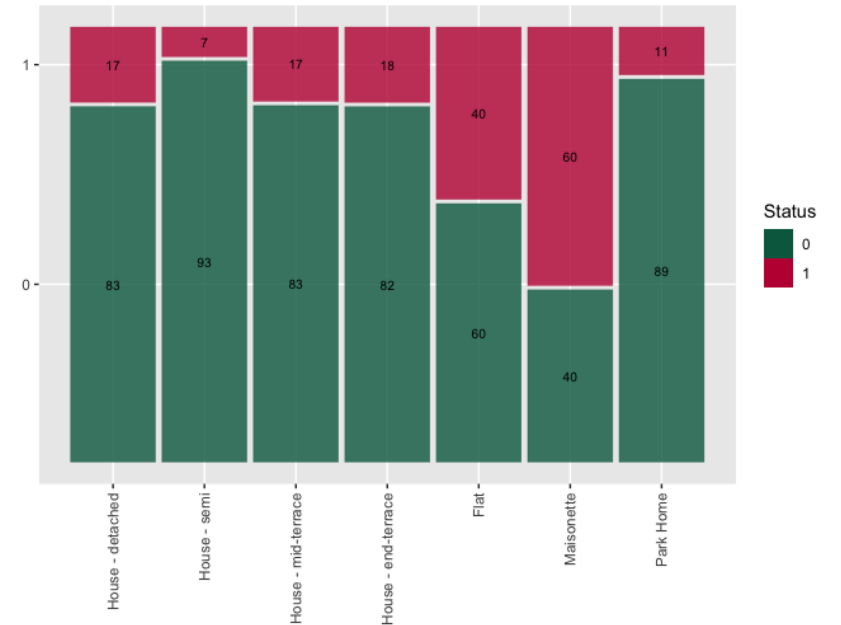
- Exit point #2 – Three of the variables tested in our analyses could help predict which households were eligible, but then cancelled their installations before they went ahead:
- House type - householders seemed more likely to cancel their installations when they lived in flats (and were much less likely to cancel when they lived in park homes),
- EPC rating - when their homes had an EPC rating of A or no EPC certificate
- Income band (estimated) - The relationship between household income band and cancellation is interesting: except for the £1500-1999/month band, which stands apart, there is a clear trend towards more cancellations with higher income. This might be a sign that people with less discretionary income are more likely to take up help from the council and/or less likely to fund improvements themselves to make things happen faster.



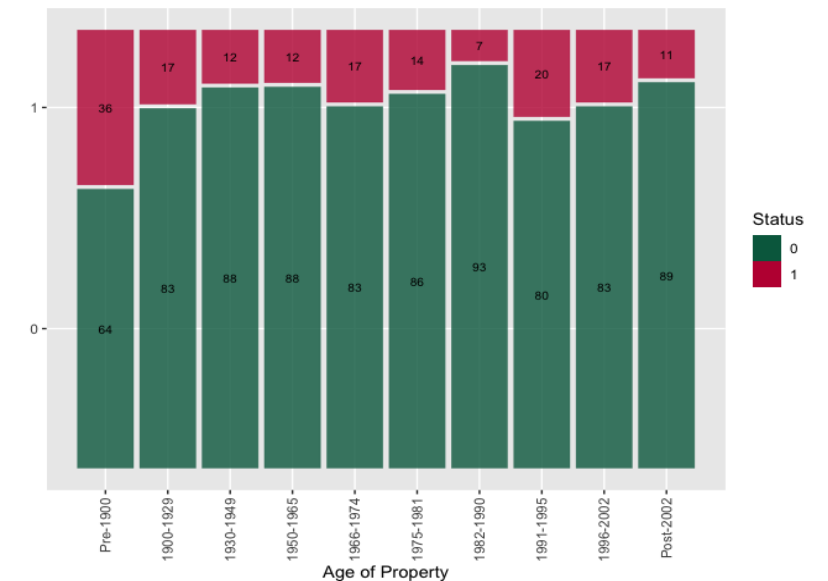
# Insights from the quantitative data analysis

- Exit-point #3 - Two variables were statistically useful for predicting which eligible households lost contact before installation:
- House type - There was a clear tendency for people in maisonettes and flats to drop out more often, which could represent greater mobility – or lack of control or accountability
- Age of property - People in older (pre-1900) properties were also considerably more likely to drop out. These properties are potentially harder to retrofit increasing the hassle factor

Which installs have DROPOUTS?



Which installs have DROPOUTS?



# Insights from the literature review

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- Trust
  - The technology – will it work – Will it damage my property?
  - In the scheme
  - The administrating authority
  - The contractors
- The simpler the organisational structure and the more visible key players are in the community, the easier it is to build trust.
- Increasing direct engagement between potential participants and green home schemes can help build trust in them







# Insights from the literature review (Con)

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- Familiarity with the technologies AND its benefits
  - The more information people have about what is available and how this could benefit their household and the environment, the more likely they are to commit to a scheme.
  - Important to remember that not everyone will be motivated by the same factors, key motivations include:
    - Financial savings (both in terms of bills and added value to property)
    - Environmental concerns
    - Health concerns/benefits



# Qualitative Research - overview

- 16 interviews conducted between October and December 2022
- 15 participants had received interventions and 1 had dropped out of the scheme before installation
- The participants occupied a variety of home styles though the data set was skewed towards self-owned detached, semi-detached and terraced houses with just 1 participant living in a Park home
- No participants living in flats or rented accommodation.
- Participants received a range of interventions, the most common were solar PV and insulation

Participant ID	Intervention(s) Received
COM-ED-251122	<ul style="list-style-type: none"> <li>• Solar PV Panels</li> </ul>
COM-GW-301112	<ul style="list-style-type: none"> <li>• Solar PV Panels</li> </ul>
COM-IH-221112	<ul style="list-style-type: none"> <li>• Loft Insulation</li> <li>• Solar PV Panels</li> </ul>
COM-NLB-161122	<ul style="list-style-type: none"> <li>• Loft Insulation</li> </ul>
COM-SW-231122	<ul style="list-style-type: none"> <li>• Loft Insulation</li> <li>• Solar PV Panels</li> <li>• Cavity Wall Insulation</li> </ul>
COM-ES-181122	<ul style="list-style-type: none"> <li>• Loft Insulation</li> <li>• Fan extractor</li> </ul>
NIL-EK-221124	<ul style="list-style-type: none"> <li>• Fan ventilation</li> </ul>
COM-DW-181122	<ul style="list-style-type: none"> <li>• External Wall Cladding</li> <li>• Solar PV Panels</li> <li>• Window ventilation</li> </ul>
NIL-TC-118122	<ul style="list-style-type: none"> <li>• <i>Declined Scheme</i></li> </ul>
COM-TAD-221122	<ul style="list-style-type: none"> <li>• Loft Insulation</li> <li>• Cavity Wall Insulation</li> <li>• Solar PV Panels</li> </ul>
COM-CS-211112	<ul style="list-style-type: none"> <li>• Solar PV Panels</li> </ul>
COM-AK-221116	<ul style="list-style-type: none"> <li>• Cavity Wall insulation</li> <li>• Solar PV Panels</li> </ul>
COM-COB-221118	<ul style="list-style-type: none"> <li>• Window ventilation</li> <li>• Solar PV Panels</li> <li>• Underfloor Insulation</li> </ul>
COM-MP1-221118	<ul style="list-style-type: none"> <li>• Loft Insulation</li> </ul>
COM-MP2-221118	<ul style="list-style-type: none"> <li>• Window Ventilation</li> <li>• Solar PV Panels</li> </ul>
COM-AG-221128	<ul style="list-style-type: none"> <li>• Solid Wall Insulation</li> </ul>
COM-WB-221116	<ul style="list-style-type: none"> <li>• Solar PV Panels</li> </ul>

# Eligibility

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- All the participants interviewed were eligible for the scheme, many of them recognised that their circumstances were quite specific, and they felt that there were not many other people in their community who would meet the criteria. This was a major factor in many of the participants stating that they had not been able to recommend the scheme to other people
- This perceived low level of eligibility and the low uptake has also directly contributed to the failure to establish any kind of 'community' around the scheme which the literature suggests is critical to success
- In particular, the income threshold was seen as very low and severely restricted the number of people eligible for the scheme. Consequently, most of the participants were either recently divorced, retired or unemployed
- While this demonstrates that the scheme is helping some of those most in need, it was also clear that the scheme is not reaching the most vulnerable as all the participants were home owners who while income poor were asset rich

# Engaging households – on and offline communities

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- Nearly all the participants found out about the scheme ‘by accident’ mostly via social media:  
*‘I think it was on social media somewhere, either the Next Door website, the local MP might have put something on there or Facebook something like that.’ [COM-SW-231122]*
- Despite the lack of previous knowledge about the scheme the vast majority of the participants were very aware of the financial and environmental benefits associated with retrofitting their homes to reduce energy consumption. Several of the participants noted that they found out about the scheme while exploring options for making improvements to their homes  
*‘Don’t remember exactly how I bumped into Action Surrey, I think it was linked to my search for...new doors there was this ad that ohh you can be eligible for new windows and doors and there was Action Surrey and they said no...it’s no longer operational but there’s another one, and that’s how it all led to the talk about solar panels’ [COM-AK-20221116]*
- Strong evidence to suggest that online advertising is effective to raise awareness- but lack of wider visibility in the community may be leading to those without an online presence not finding out about the scheme.

# Engaging households – offline communities

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- The participants were quite vocal about the need for increasing community awareness of both the scheme and the benefits associated with retrofitting - this is aligned with the insights from the wider literature
- In particular – it was noted that the opportunity to engage with people who had previously received support from the scheme would be helpful –
- A number of the respondents stated that they would be keen to be involved with such an initiative



# Engaging households - Circumstances

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- The participants had a variety of reasons for taking part in the scheme, however, it was clear that in all cases their personal circumstances made a significant contribution to their participation

*'There's four of us in the property, 2 adults, two children...we probably use more (heating) than other families...we have one child with an additional need...autism...they tend to eat different foods so the oven goes on twice...more washing, members of house asthmatic, charging devices...'* [COM-AG-20221128]

*'I've got rheumatoid arthritis. I have to be very warm. I don't function if it's cold...'* [COM-ED-251122]

*'One of the reasons I was trying to get it sorted is that I have terminal cancer and I'll try to get the house set up for my wife so it's just really looking at what was around'* [COM-NLB-161122]

*'when one's retired with not a great deal to do, you tend to get more involved in trying to get things sorted'* [COM-DW-81122]

- Understanding the circumstances which encourage and enable people to apply can help in developing targeted marketing campaigns

# Trust

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- Similarly to other studies reviewed, trust was identified as a central issue which impacted both the participants decision to sign up to the scheme and their overall perception of the process
- Many participants were aware of negative stories in the press and there was a sense that these might be putting people off signing up
- In general, participants felt that the fact that the scheme was endorsed by a local authority meant that it could be trusted, as they would not support activities which could damage their reputation

*'I think it (intervention) coming from a source like Surrey County Council is really good because it then gives you some confidence that is not some dodgy builders that are trying to do something...I know there's been quite a few issues in the press recently...so I think trust of the organisation that's running the show is a big thing' [COM-CS-211112]*





# Trust (Con)

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- However, a number of participants did note that they were initially confused about the status of 'Action Surrey and ThamesWey' and how they related to Surrey County Council
- There was also some concern that companies might be exploiting the scheme and presenting quotes which were significantly higher than market prices:
  - 'I could get double glazing for half that'* [NIL-TC-1181122]
- Related to this was the concern around the level of subcontracting.
  - '...you've got people working at cross purposes costing more money than it needs to and not delivering anything of real value...there is a long string of organisations that are all subcontracting their work, who are all obviously taking their cut...people duplicating their work and costs must be astronomical.... This is my money as much as anybody else who lives in Surrey...and I think we're being ripped off'* [COM-MP120221118]



# Key conclusions

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- Property age and house type were significant factors in participants dropping out from the scheme - this suggests that the additional challenges associated with retrofitting measures in older homes and flats/maisonettes may be a factor in discouraging participation
- Programs with strict eligibility criteria related to income are unlikely to attract large numbers of participants
- Online marketing appears an effective way to engage and sign up SOME participants. However, there is also a need to develop a physical presence in communities to develop trust and engage a wider range of people
- Local authority supported schemes help build trust. But this is significantly harder when there is multiple layers of sub-contracting involved
- In addition to promoting specific schemes there are significant benefits in increasing general awareness of the benefits of installing energy saving measures
- Understanding the complexity of peoples everyday lives and designing interventions which fit into existing practices makes them more attractive
- Understanding specific circumstances which help facilitate participation is useful in the development of targeted marketing campaigns