



Home Upgrade Grant Phase 1 Evaluation

Technical Report

DESNZ Research Paper Number 2024/012

JN262400605

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1. Methodology

This technical annex provides an overview of the methodology adopted the Home Upgrade Grant (HUG1) evaluation¹. It provides an overview of evaluation's overarching objectives, key evaluation questions, data collection methods and steps intended to promote quality and robustness of the evaluation findings.

1.1 Evaluation purpose

The primary purpose of this evaluation was to assess the implementation of HUG1 and evaluate the extent to which it aligned with scheme expectations. Specifically, DESNZ sought to understand the variations in delivery approaches and contextual factors which influenced the scheme's implementation. The evidence from this evaluation will feed into policy and design of future schemes to promote efficiency and improve management processes.

There were four main reasons DESNZ decided that the process evaluation should be focused on HUG1 rather than the Sustainable Warmth Fund scheme as a whole:

- 1. DESNZ had already commissioned a large-scale evaluation for LAD 1/2, and therefore decided to focus on HUG1 with the resources available.
- 2. LAD Phase 3 built on and improved on delivery of LAD Phases 1 and 2, which completed delivery 12 months prior. Therefore, the department felt there was less to learn from that scheme in terms of a focus on on-gas grid homes.
- 3. As HUG1 was the first LA led scheme which targeted off-gas grid homes, DESNZ wanted to understand the challenges of this context and factors behind successful delivery.
- 4. HUG1 was more challenging in terms of delivery than LAD3, Therefore DESNZ had greater interest in finding out reasons behind varying LA delivery performance to inform future policy and scheme design.

1.2 Evaluation objectives

This evaluation had two main objectives. First, to develop a qualitative typology of the range of delivery models under the Sustainable Warmth Fund (SWF). Second, to undertake a process evaluation to provide detailed insights on how local authorities (LAs) have implemented HUG1 from the perspective of local authority staff, delivery partners, installers and households.

¹ The evaluation primarily centred on the HUG1 component of the SWF. This decision was influenced by DESNZ's prior commissioning of an extensive evaluation for LAD Phase 1 and 2. LAD Phase 3 built on and improved on delivery of LAD Phases 1 and 2. These earlier phases were completed 12 months ago. Consequently, the department perceived fewer insights to be gained from focusing on a similar scheme concentrating on on-gas grid homes. In contrast, HUG 1 marked the first local authority (LA) led scheme targeting off-gas grid homes. The aim was to delve into the unique challenges of this context and identify the factors contributing to successful delivery.

1.3 Evaluation questions

The evaluation focused on the Key Evaluation Questions (KEQs) outlined in the evaluation matrix presented in Table 1 below. These KEQs were systematically aligned with the core project process areas of the HUG1 scheme. Additionally, sub-questions were defined to provide a more detailed focus within each KEQ. Criteria were established for each sub-question to guide the assessment of evidence. It's crucial to emphasise that these criteria serve as exploratory probes, offering insight into the evidence gathered to address the evaluation questions. Given the adaptable nature of the SWF implementation, specifying precise details about the processes, and expected outcomes proved challenging. Nevertheless, the criteria served to enhance clarity and facilitate transparent discussions regarding the aspects the evaluation examined to address the defined questions.

Table 1: Evaluation matrix

Key and Sub- Evaluation Questions	Criteria to answer the questions	Source of evidence
Context		
KEQ 1: What contextual factors influence the ability for project leads to deliver installations under HUG1? SQ 1.1: What is the role of LA specific factors such as geography, poverty levels, staffing, experience on HUG1 implementation outcomes. SQ 1.2:: What is the role of LA specific factors such as geography, poverty levels, staffing, experience on HUG1 implementation outcomes. SQ 1.3: What is the capacity and/or willingness to participate in the delivery of HUG1? How do these factors affect scheme implementation outcomes?	 SQ 1.1 Identification of factors which cause scheme processes to be adapted or modified to overcome challenges. Exploration of how factors may strengthen or weaken scheme processes. SQ 1.2; SQ 1.3: Installers' perceptions on required levels of compliance for participation in scheme. Installers and LA perceptions about whether requirements for participation are proportionate. Explore common challenges and enablers across the UK, outside of LA-specific context. Explore suppliers' geographic coverage and experience in delivery coverage required by the scheme. Identify mechanisms to overcome barriers. 	SQ 1.1; SQ 1.2: Review of scheme internal monitoring data, analysis from interim typology to identify relevant contextual factors. SQ 1.1: Key Informant Interviews with relevant stakeholders at LA level to validate contextual factors relevant to them and how context affects scheme processes and outcomes. SQ 1.2; SQ 1.3: Key Informant Interviews with installers, delivery partners, sub-contractors to identify factors that that act as barriers to suppliers' participation in the scheme and how these barriers scheme implementation

Key and Sub- Evaluation Questions	Criteria to answer the questions	Source of evidence
KEQ 2: What models of project governance exist for LAD 3 and HUG1? SQ 2.1: What factors influence the decision to enter a consortium? SQ 2.2: How do the different consortium and delivery partner models differ from each other.	 SQ 2.1-2.4: Identification of factors encouraging lead consortium members to lead application and influencing other members to join consortium. Exploring LA characteristics more likely to lead to them joining consortium. SQ 2.5: 	SQ 2.1-3.4: Key Informant Interviews with LA stakeholders and other partners to understand the process and decision making behind consortium and delivery partner approaches. SQ 2.1-3.4: Document on which projects use consortiums: "SW +HUG1b LA consortium (SW use)"
SQ 2.3 What is the role of different consortium members? What role do the non-lead consortium members have? SQ 2.4: How are relationships between consortium partners managed? SQ 2.5: What factors influence the decision to use delivery partners? SQ 2.6: How are delivery partners procured? SQ 2.7: How effectively are LA project Leads able to procure delivery providers for HUG1? SQ 2.8: How are the relations between LA/ Consortium members and delivery partner managed?	 Identification of factors influencing decision to use delivery partners. Exploring any other relevant models of project governance and understanding significance to LAs. SQ 2.6-2.8: Exploring approaches to procuring delivery partners, extent these approaches are standardised or varied across LAs. Range of roles and decision-makers involved. Perceptions of ease of finding delivery partners. Challenges faced, both local and UK-wide. 	SQ 2.5: Bid detail around whether LA plans to use delivery partner, section 4 question 19. SQ 2.6-8: Review interim typology notes from project managers to explore range of delivery models described (high level).

Key and Sub- Evaluation Questions	Criteria to answer the questions	Source of evidence
KEQ 3: To what extent is the existing project governance approach consistent with the LA bid? SQ 3.1: What changes have been made to project governance arrangements since the bid stage and why?	 KEQ 3 / SQ 3.1: Perceptions around importance and purpose of chosen governance model, and flexibility. Comparison of project governance arrangements listed at bid stage with data and feedback regarding delivery of the programme. Explore level of consistency here and reasons driving change. Explore range of models used and reasons for LA choice. Understand perceptions within consortia of different members' roles and contribution, extent these are complementary or involve duplication. Explore mechanisms of communication between partners, including comms channels, formats, and frequency of contact. Explore perceptions around the appropriateness of this, benefits and disadvantages and desired changes. Understand the role of lead applicant relative to other partners. Understand how fixed or dynamic roles and relationships are. Explore mechanisms of communication between stakeholders. Explore perceptions around the appropriateness of this, benefits and disadvantages and desired changes. 	KEQ 3 / SQ 3.1: Review and comparison of bid detail with notes from qualitative typology initial assessment Key Informant Interviews with relevant stakeholders at LA level to understand extent to which delivery has aligned with original approach set out in bid and reasons for variation. Key Informant Interviews with delivery partners.

Key and Sub- Evaluation Questions	Criteria to answer the questions	Source of evidence
 KEQ 4: How is LA managing the consortium members, delivery partners, suppliers and keeping them accountable? SQ 4.1: What is the division of labour between DP, Consortium, LA? How does these differ across different LA's. To what extent does this division of labour affect scheme outcomes? SQ 4.2: How often is a dedicated team in place vs. this work being done on top of day to day? To what extent is the scheme administrative budget being used to fully fund these roles?. SQ 4.3: How are LAs managing data collection requirements? 	 SQ 4.1-2 Mechanisms and tools for management Mechanism and tools for accountability Enforceable measures to address poor performance Quality Assurance measures in place SQ 4.3: Differences in data quality reporting between smaller and larger consortiums Responsibility for populating the data reports? Strategies to improve reporting. Exploration of discrepancy between LA recorded data and the Trustmark database PAS2035 process and compliance Perception about compliance process Strategies to make compliance easier. 	 KEQ 4 / SQ 4.1-3 Data quality review across all shared project documentation. Key Informant Interviews with relevant stakeholders at LA level to understand overarching management and data collection. Typology initial analysis, for example around successes or challenges with project management.
KEQ 5: How does the project governance model affect scheme implementation outcomes? SQ5.1: What project governance models /configurations result in better implementation outcomes? Why?	 KEQ 5 / SQ5.1: Focused on the three categories of outcome included in the Theory of Change: Training quality of installations and fraud; Retrofitting and heating installers and supply chain Identify measures used by LAs to assess implementation success where available. Explore LA perceptions of influence/relevance of project governance factors on key outcomes. Understand balance of categories/specific outcomes most affected by project governance models. For example, does use of a delivery partner lead to higher installation quality standards and increased consumer satisfaction? 	 KEQ 5 / SQ5.1: Review interim typology to understand whether aspects of project governance have been identified as driving more or less successful delivery (e.g. good relationship with delivery partner, delays from this side). Key Informant Interviews with relevant stakeholders at LA level.

Key and Sub- Evaluation Questions	Criteria to answer the questions	Source of evidence
Uptake		
KEQ 6: What range of methods or approaches are used by LAs to identify homes? What factors influence which approach is used? SQ 6.1: How effectively can suitable homes be identified for participation in this HUG1? SQ 6.2: What challenges do LAs face in /identifying eligible homes? SQ 6.3: What methods are used to establish household eligibility for the scheme? How does this this affect demand for the programme?	 SQ 6.1: Range of eligibility methods used, data sources drawn from, and adjustments made for different types of households SQ 6.2: Identification of challenges with different types of eligibility verification SQ 6.2: Categories of households who drop out before applications. Identify reasons for this. SQ 6.3: Factors that might increase conversation rates. Channel consumers use/are directed in affect how far they get along the process. Poor conversion rates and waste of resource: Ancillary and admin budget. Use of allocated budget and reasons for fast spend if any. 	 KEQ 7 / SQ 6.1-3: Key Informant Interviews with relevant stakeholders at LA level to understand range of eligibility methods used and why. Interviews with any other relevant partners used to help identify homes. Household interviews on perceptions of eligibility verification process Range of data on eligibility verifications – from bid detail and example data return.

Key and Sub- Evaluation Questions	Criteria to answer the questions	Source of evidence
 KEQ 7: Which approaches to community engagement and recruitment have been most effective and why? Which have been less effective? What has been the lessons learnt. SQ 7.1: What factors influence the approach and combination of community engagement? SQ 7.2: How soon after BEIS fund approval does marketing and targeting process start? Does this affect delivery/implementation outcomes? How? 	 KEQ 7 / SQ 7.1-2 Understand structure of marketing campaign management (internal or external? managed through a separate contract or in the delivery partner contract?) Review LA marketing engagement campaign plans. Identify whether the marketing is targeted correctly. Perceptions about how effective the medium the LA is using for different audience is (e.g. targeted emails better than leaflet drop)? Explore how well LA understands the impact of its marketing. Challenges in reaching particular types of households. Understand capacity of any third-party organisations used for community engagement. 	KEQ 7 / SQ 7.1-2: Key Informant Interviews with relevant stakeholders at LA level to understand community engagement approach in detail. Household interviews on experience of coming on to scheme Additional bid detail on planned marketing strategies, approaches and roles. Use of any third parties for engagement
Service Provision		
KEQ 8: How are installers recruited?	SQ 8.1:	SQ 8.1:
SQ 8.1: What supply chain model are LAs using and for what measures?	 Use of in-house vs. external procurement expert Extent of use of dual sourcing. LA use of outsourced installers vs use of own installers 	Key Informant Interviews with relevant stakeholders at LA level, partners if relevant.
SQ 8.2: What works? What are the	SQ 8.2:	
challenges? What are the lessons learnt? SQ 8.3: How are installers onboarded? What are installers perceptions of onboarding requirements and how does	 Recruitment issues and effect on scheme timelines Type of installers used and difference in experience SQ 8.3: 	Typology initial analysis, for example if challenges or successes with suppliers have been identified as important for the success of the scheme.
this affect willingness to participate in the programme.	 Time taken for onboarding. Variations between LAs Example of effective onboarding vs. ineffective Training given to suppliers. Variation between LAs Support given to installers. Variation between LAs 	SQ 9.1-3: Installer interviews.

Key and Sub- Evaluation Questions	Criteria to answer the questions	Source of evidence
KEQ 9: What types of energy efficiency installations are being delivered through HUG1, and to what extent does this align with the scheme objectives? SQ 9.1: What determines the types of energy efficiency installations? Are these consistent with scheme guidelines?	 KEQ 9 / SQ 9.1: Community members' preferences for measures - what drives this? Perception of difficulty of certain measures and the reasons. Overview of lessons learnt. Experience of delivery, particularly in some type of homes- flats, park homes Experience with delivery of particular installation types. The factors (supplier characteristics, capacity etc that drives this) Impact of Covid on supplier workforce and impact on installation Impact of wait-time for parts on installation 	 KEQ 9 / SQ 9.1: Key Informant Interviews with relevant stakeholders at LA level, partners if relevant. Internal monitoring data Interviews with households around expectations, experience of delivery. Perception around different types of measures
KEQ 10: To what extent are the homeowners and landlords engaged by the project willing to undertake this model's priority installation measure types? SQ: 10.1: Is the project delivering a positive experience for consumers and landlords, and how is this influenced by the delivery model compared with overall scheme design?	 KEQ 10: Extent to which LA staff have been trained on particular measures such as ASHP technology SQ 10.1: Availability of use user guides to residents' post-installation Aftercare guidance being offered by LAs to installers e.g. requirement to issue user guides for residents Extent to which installers feel supported by LA re aftercare requirements? Extent to which residents feel supported by LA in terms of their aftercare needs The extent to which post-installation inspections being carried out as a matter of routine 	KEQ 10 / SQ 10.1: Key Informant Interviews with relevant stakeholders at LA level. Installer interviews. Interviews with households around level of support received for aftercare.

Key and Sub- Evaluation Questions	Criteria to answer the questions	Source of evidence
KEQ 11: To what extent has the implementation of the SWF affected the	SQ 10.1:	SQ 10.1:
delivery of future energy efficiency	- LA experience of participating in Sustainable Warmth.	Review of detail in bid of involvement in
improvements?	 Comparison of current with their experiences of previous LAD phases 	previous LAD phases (Q1D).
SQ 10.1: How has LA experiences of HUG1 affected the implementation approach of future schemes?	 Identify lessons learnt and explore how these are applied to HUG 2 	Key Informant Interviews with relevant stakeholders at LA level to understand previous experiences, comparisons, lessons learned, and perceived impact on delivery.

1.4 Evaluation methodology

The evaluation adopted a multiple qualitative case study approach which involved semistructured interviews to collect qualitative data from participants and complemented by scheme data held by DESNZ e.g. LA bid documentation. An eligible 'case' was limited to HUG1 projects due to the novelty of the off-gas grid approach which had not been evaluated before. Ten HUG1 projects out of a possible 42 were purposively selected for case studies. Each case study refers to a different HUG 1 Project e.g. Wakefield, Leicester etc.

1.4.1 Data collection methods

Table 2 and 3 provides an overview of all data sources which contributed to the evidence base in this report. Primary data collection took place during between 29/03/23 and 20/10/23. Scheme performance data referenced in the report is from 'August' data-submissions, dated 24/08/24. No later secondary scheme data was analysed. Interviews were conducted via Zoom, Microsoft Teams or telephone and lasted 45-60 minutes. Group discussions lasted between 60 to 90 minutes.

For each project/case study, a single lead researcher from the Verian evaluation team conducted virtual interviews, analysed the collected data, and authored a case study report for each project in scope. All interviews obtained the necessary permissions to conduct the evaluation research and nine out of ten of the interviews with LAs were recorded.

Data source	Type of evidence collected	Sampling criteria	Number of research activities
Primary data			
Group discussions with DESNZ staff (policy team and account managers)	Qualitative data – explanation of scheme background and context, overview of delivery, additional information to inform/validate typology.	N/A	3 mini group discussions
Group discussions with local authority representatives and delivery partners	Qualitative data – views on scheme delivery, governance models, approaches to driving uptake and service provision. Imagery to illustrate delivery e.g. organograms of governance structures.	A representative from the local authority / consortium / delivery partner who was directly involved in the Sustainable Warmth Fund.	26 stakeholders across 10 group interviews

Table 2: Primary data collection methods

In-depth interviews with installers	Qualitative data on involvement in scheme delivery.	An individual whose organisation was responsible for conducting installations under HUG1.	7 interviews
In-depth interviews with households	Qualitative data on experience of application, eligibility verification, experience and aftercare.	Individual who successfully received a measure under HUG1.	46 interviews

Table 3: Secondary data collection methods

Data Source	Relevant information
 Scheme data returns: Submitted March 2023: labelled 'HULA_Release – March 2023' Submitted August 2023: labelled '230823_SW_evaluation' Submitted October 2023: labelled '231020_SW_evaluation' 	 For all Sustainable Warmth Fund projects (to aid typology development): Number of measures installed across HUG1 and LAD3, from March 2023 data For each of 10 HUG1 case study projects, from August and October 2023 data. October data was included in case studies but was not used for analysis in the main report. Date of first installation Number of installations achieved by measure/measure type.
Sustainable Warmth Bid Assessments	 For all Sustainable Warmth Fund projects: Project / bid information For each of the 10 HUG1 case study projects specifically: measures planned and measure mix.
DESNZ qualitative initial typology review (internal document labelled Typology_Initial_Analysis_BEIS')	Funding secured for HUG1 and LAD3, assessments of progress and challenges of scheme delivery.
ONS Fuel Poverty Risk Index	Rates of fuel poverty within each project.

1.4.2 Data analysis and quality assurance

The data analysis process was structured around an evaluation matrix. Evidence from all data sources, including interviews and secondary data was triangulated into case study reports. A

formal desk-based analysis process was employed, where case study reports were summarized into an analytical framework structured around the evaluation matrix (see Table 1). This framework aimed to identify core themes and patterns, define concepts, create and refine typologies, and undertake subgroup analysis.

In addition to this process, weekly post-fieldwork debriefs, and team discussions were conducted, along with two interim presentations of findings to key DESNZ stakeholders. This approach ensured that our analysis was iterative, facilitating continuous development, testing, and refinement of new hypotheses. It also allowed us to provide early insights for reflection by the delivery team and account managers. Feedback from DESNZ played a crucial role in refining questions and guiding interviews to maximise relevant findings.

The evaluation team collaborated closely with social researchers at DESNZ to uphold quality and rigour throughout the analysis process. For instance, the agreed-upon evaluation matrix outlined in Table 1 provided structure and transparency for data collected and analysed through semi-structured interviews. Similarly, the purposive sample design, drawing on the experience of the DESNZ policy team, aimed to incorporate diverse perspectives and project experiences. Discussion guides underwent review by the DESNZ team and senior quality directors at Verian. Data and findings were collectively discussed and interpreted to mitigate individual researcher bias. The evaluation reports underwent thorough review by both a DESNZ and an external peer reviewer.

1.4.2 Strengths and limitations of the methodology

The Verian team employed a qualitative case study approach for the evaluation. This approach allowed us to gain detailed and rich insights from multiple data sources and triangulate this against existing secondary evidence. The case study approach incorporated views from a range of stakeholders. This allowed the evaluation team to explore implementation from diverse perspectives and draw together overall comprehension of the project context.

Although the case study approach relied on a substantial number of cases (10) across a range of developed types, not all projects were included in the evaluation, potentially limiting a complete insight. However, evidence from the 10 case studies was triangulated against broader scheme data to increase the reliability and validity of the findings. Another limitation in this evaluation was the limited engagement and participation from installers. Efforts were made to interview at least one installer per local authority and two to three where possible. To address this limitation, the evaluation team experimented with alternative approaches to recruiting installers during the fieldwork phase, particularly leveraging contacts through LAs, with limited success. Despite this limitation, the insights gained from the interviewed installers align with the perspectives of other research participants within the case study locations, offering some validation.

2. Delivery model project typology

This section describes the process and stages followed by the evaluation team to develop a typology for different delivery models adopted by different SWF projects. This primarily addressed the first objective of the evaluation - to produce an overview and categorisation of different delivery models adopted by all local authorities participating across LAD3 and HUG1. In total, 51 projects fell into this category. Another important use of the typology was to inform purposive sampling to collect data across a range project types. This research sampled ten case studies and exclusively focused on experiences of delivering HUG1. Overall, 42 projects were delivered under HUG1 and were eligible for case study selection.

Initially, it was agreed in discussion with DESNZ evaluation analysts that the typology was to provide a broad framework rather than a systematic, robust categorisation of different types of LA projects. This was because there were many differences and nuances between bids, variation in local delivery contexts, and within consortia, as well as gaps in data or concerns around quality. The case studies aimed to build on the typology and draw out important factors that appeared likely to have influenced delivery across and within the within the different types.

2.1 Defining and agreeing attributes for typology development.

2.1.1 Mapping potential attributes

Initially, the Verian evaluation team constructed a typology framework by mapping attributes of projects from DESNZ documents relating to HUG1 and LAD3 and wider contextual data, e.g. percentage of fuel poor households. These documents included bid documents, scheme return data and initial typology notes completed by members of DESNZ's team. This generated a set of 22 attributes (see table 2). These attributes were mapped against project context and three priority 'project process' areas: 1. Governance, 2. Uptake, and 3. Service Provision. These were identified and validated from discussions about the HUG1 scheme with DESNZ SWF account managers. No attributes were included relating to the 'Uptake' stage (the approaches used by LAs and delivery partners to drive household applications for measures under HUG1) due to a lack of clear and reliable indicators.²

2.1.2 Reviewing data for quality and availability

Following the mapping stage, the evaluation team reviewed the programme documentation supplied by DESNZ to assess the availability of data needed to categorise delivery models. This step was designed to ensure the typology was based on reliable data, consistently available across projects. The team assessed attributes for their completeness, distinctiveness (i.e. avoiding duplication of other possible attributes), coherence across data sources, and the extent attributes allowed for helpful categorisation.

² We recognise that the absence of attributes related to uptake limits the depth of insight into how the delivery model influences uptake and other implementation outcomes. To overcome this, and as reported in the finding section of this report, the evaluation sought additional insights from households regarding their decision-making processes for specific HUG 1 measures. Additionally, we corroborate these findings from households with insights from local authorities, delivery partners and installers.

Table 2: Initial attributes identified for typology development.

Process stage	Attribute	Description	
Context	Region	Geographic location	
	Total population	Population of LA aged 16 and over	
	% of fuel poor households	Fuel Poverty Risk Index. Drawn from ONS data available on each LA.	
	Prior Funding Experience	Whether LA or consortium has received funding in the past. Contained in the application (q1d).	
	Risk tier	Qualitative assessment drawn from initial the Department typology assessment	
	Bid approach	Whether project is delivered by consortium or not.	
	Consortium size	Total number of LAs in consortium.	
	Regional hub	Whether hub being used or not.	
	Initial bid value	Total amount of funding bid for across HUG1 and LAD3	
	HUG1 funding awarded	Binary record of whether funding awarded or not.	
Governance	LAD3 funding awarded	Binary record of whether funding awarded or not.	
	HUG1 Grant amount percentage of total grant	HUG funding as a percentage of total	
	HUG1 extension awarded	Binary record of whether funding awarded or not.	
	Use of delivery partner	Qualitative description in application of whether used a delivery partner, subsequently validated in interviews.	
	Use of larger delivery partner	Whether project is using one of the larger UK delivery partners (e.g. EON)	
	Proposed properties reached	Total planned number of properties reached.	
	HUG1 properties reached	Number for HUG1.	
	LAD3 properties reached	Number for LAD3.	
Service provision	Number of measures by main type	Measures installed as part of project across both schemes.	
	HUG1 total measures	Grand total of HUG1 measures installed.	
	HUG1 measures by type	Comprised of: Insulation Low Carbon Heat	

LAD3 total measures	Grand total of LAD3 measures installed.
	Electricity related
	Windows and Doors
	Heating Control

2.1.3 Establishing key attributes

After reviewing data quality, the 22 attributes initially identified were narrowed down to six core attributes: Bid approach, Consortium size, Initial bid value, Prior Funding Experience³, Use of delivery partner, and Size of delivery partner. These attributes were considered adequate for categorizing 51 projects for a varied case study sampling. For example, Consortium size was recorded reliably across all bid documents (thus complete and coherent), was not duplicated, and had a wide spread of values across all consortia projects that allowed for categorisation.

18 attributes were deprioritised due to concerns with quality, availability, or relevance during the data check. Some key instances of these are discussed below. However, some of these are discussed in the analysis of case studies:

- **Rurality**: the evaluation team judged this to be a complex measure to assess, especially consortia with diverse geographies. The team identified and discussed with DESNZ that one option could have been to apply this only to the lead LA within the bid, but this was judged to be of limited value in categorising projects..
- Index of multiple deprivation (IMD): the evaluation team made an assessment that 'fuel poor households' was a more relevant and clear measure to use than the IMD. The reasoning for this was that the IMD includes a measure of those out of work, which was not relevant to the SWF scheme.
- **Uptake of properties**: At the time of typology development, SWF delivery was still unfolding and some projects' data returns were delayed. Therefore, the evaluation team established that this was not a complete or coherent data source to use for typology development. Furthermore, the evaluation team judged that it was more appropriate to use this attribute as a measure of performance rather than to define project types.
- **Property targeted**: Applications data such as planned delivery was largely not reflective of subsequent delivery achieved in reality. Instead, tenure type and building stock were judged to be more important to explore through the case studies.

2.2 Typology development

The delivery model typology was developed by the evaluation team through the analysis of bid information submitted by LAs. Initially, bid documents were reviewed for relevant information, which was organised and prioritised based on the criteria described in 2.1.2, above. Following this, a basic thematic analysis and descriptive analysis was conducted to identify emerging variations and patterns. Examples of this can be seen in *Table 3*, below. From this exploration

³ The answer to q1d of the bid document: "Has your LA, or every LA in your consortium, received funding under LAD Phase 1a or 1b?"

of distinctions and similarities among various projects, we identified eight different types (see figure 1 below) which all 51 projects were categorised into.

This validation stage consisted of a presentation from Verian to provide an overview of the proposed categorisation (typology) of delivery models with DESNZ delivery, policy and analytical colleagues. Feedback was incorporated from this session and the typology was subsequently signed off by DESNZ. Projects were categorized into respective types using key attributes, ensuring uniformity within each case and across types. Internal discussions fine-tuned these types, resolving any disagreements through consensus-building discussions with DESNZ account managers. These discussions focused on assessing the clarity of the typology. Input from the DESNZ team subsequently guided the selection of case studies to ensure these reflected delivery models of interest. *Figure 1*, the typology framework with 51 Sustainable Warmth projects, illustrates the distribution of projects across these groups. *Table 3* outlines the more detailed characteristics and commonalities identified at this stage.

Bid approach					
Consortia			Single LA		
Consortium size			Prior experience		
Super sized	Medium	Small	Prior experience	No prior experie	
	Project value				
	(Higher value)				
Туре і.	Туре іі.	Type iv.	Type vi.	Type viii.	
4 projects	2 projects	6 projects	13 projects	4 projects	
	Lower value				
	Type iii.	Туре v.	Type vii.		
	3 projects	10 projects	9 projects		

Figure 1: Typology Framework

Descriptive names for each of these types are included in the table below.

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Table 3: Typology – full descriptions

Name	Definition	Characteristics identified in typology development	Projects
Consortia proj	jects		
i. Super- sized consortia	Project that applied for funding through a consortium with over 20 members.	 Very high total population across all members (lowest population size at just under 3 million people within a consortium with the other three being over 6 million). All high in their risk tier (1)⁴. HUG1 and LAD3 funding total award high (lowest total funding of £32 million across two schemes for Portsmouth City Council and highest at around £118 million for Cambridge and Peterborough Combined Authority). All used delivery partners that are classified as large. Bar Nottingham City Council (where there may be delays in reporting) all the consortiums had installed a very high number of measures across LAD3/HUG1 as of the March 2023 data return used at this stage. According to the data, GLA had the lowest number of measures installed. 	Total projects: 4 Cambridge & Peterborough Combined Authority (69), Greater London Authority (GLA) (33 authorities), Nottingham City Council (60), Portsmouth City Council (24).

⁴ This was a qualitative risk rating applied by the DESNZ delivery team and recorded in the document 'Typology_Initial_Analysis_BEIS' shared with the evaluation team on 17.04.23.

ii. Medium sized consortia (high value)	Consortia with between 7 to 19 members with total award above £20 million for HUG1 and LAD3 schemes.	 Total award amount similar, with around £23.4 million awarded to Ealing London Borough and £28.5 million for Liverpool. Both consortia rated high in risk (risk tier 1). Both consortia used delivery partners classified as large (Ealing-Warmworks, Liverpool- Everwarm). Both consortia received a larger amount and proportion of LAD3 funding. According to secondary data, these make up 13.23% of total LAD3 grant funding compared to 6.37% of the total HUG1 funding. Both consortia had very high total measures installed (over 1,000) according to March 2023 data return. 	Total projects: 2 Ealing London Borough, Liverpool City Region Combined Authority.
iii. Medium sized consortia (low value)	Consortia with between 7 to 19 members with total award below £20 million for HUG1 and LAD3 schemes.	 Total award amount quite consistent, ranging between around £5 million and £9.5 million. All rated in the lower risk tier (2). All consortia received more in HUG1 funding than LAD3 funding. All used a direct award procurement route. All the main delivery partners (for the three consortia) were not classified as large 	Total projects: 3 Blackpool Borough Council, Devon County Council, Stroud Council.

iv. Small sized consortia (high value)	Consortia with 6 or fewer members with Total award above £5 million for the HUG1 and LAD3 schemes.	 Total population is largely consistent, with all consortia having a population of between 400-600,000 people. All but one consortium had prior funding experience. All but one consortium with a low risk tier (2). All consortium receiving significantly more in HUG1 funding than LAD3 funding (and taking a much larger percentage share of the total HUG1 grant amount). Bar Carlisle City Council, total award amount quite consistent, between £5-8 million. Half the consortium have not yet reported total measures installed (3/6). 	Total projects: 6 Cambridge City Council, Carlisle City Council, Cornwall County UA, North Yorkshire Council, WOE Combined Authority, West Suffolk District Council.
v. Small sized consortia (low value)	Projects with 6 or fewer members with Total award below £5 million for the HUG1 and LAD3 schemes	 Total population more varied than other types. Majority of LAs are classified as urban. All consortia had prior funding experience. Within March 2023 data return, reporting of total measures installed was much more consistent than for consortia with total award above £5 million (only one missing value). 	Total projects: 10 Bristol City Council, Broadland District Council, Cheshire East UA, City of York Council, Sedgemoor District Council, East Lindsey District Council, Hastings Borough Council, Hastings Borough Council, Oxfordshire County Council, Tees Valley Combined Authority, Shropshire County Council.

Single LA projects				
vi. Single LA with prior experience (High value)	Project leads with a single bid approach that have prior experience +Total award above £2.8 million.	 Total population varied. High percentage of fuel poor households, with an average of 16.5%. Majority of LAs are urban. Risk tier varied. EON Energy Solutions the dominant delivery partner. 8/13 LAs in this sub-group have EON as their main delivery partner. Within this, the majority of LAs also use EON as their sole delivery partner (5/8). 	Total projects: 13 Barnsley Metropolitan Borough Council, Great Yarmouth Council, Leicester City Council, Northumberland County Council, Plymouth Council, London Borough of Barking & Dagenham, Walsall Metropolitan Council, Warwick Council, City of Bradford Metropolitan District Council, Calderdale Council, North Tyneside, Norwich City Council, Royal London Borough of Greenwich.	
vii. Single LA with prior experience (Low value)	Project leads with a single bid approach that have prior experience +Total award below £2.8 million	 Total award varied from just over £300,000 to just under £2.5 million. Percentage of fuel poor households in these LAs lower at 12.8%. Rurality varied. All the LAs are classified in risk tier 2 (low). LAs in this sub-group generally using smaller delivery partner (those classified as non-large). 6/9 LAs with smaller delivery partner 	Total projects: 9 Castle Point Borough Council, Central Bedfordshire Council, East Riding of Yorkshire, Redbridge, Greenwich, Newcastle upon Tyne Metropolitan DC, Sevenoaks Council, South Derbyshire Council, Colchester Borough Council, Waltham Forest Council.	

viii. Single LA with no experience	Project leads with a single bid approach that have no prior experience.	 Variation within population levels, but lower than total population level across all LAs. Very high percentage of fuel poor households for these LAs. Average of 16.9%. All the LAs are urban. All the LAs are classified as lower risk (risk tier 2). HUG1 and LAD3 total award low overall for these LAs. Procurement route varied and size of delivery partner varied (Lincoln and Sheffield City Council using large partners in Yorkshire Energy Solutions and EON Energy Solutions respectively) 	Total projects: 4 Hartlepool Council, Wakefield Council, Lincoln City Council, Sheffield City Council.
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2.3 Case study selection

Specific case study projects were selected following a review and discussion with DESNZ of the full typology. For each type included in the typology, the Verian evaluation team, with inputs from the DESNZ delivery team, identified projects which were typical for the typology or of particular contextual interest to include as part of the case study selection.

These projects were agreed with the DESNZ team. The criteria for selection included how good an example each project was for illustrating the type, the range of project characteristics within each type (i.e. to compare different LA experiences), how many projects fell into that category, and the interest the Department in specific examples. The ten case studies are set out in table 4, below.

Table 3: Selected case studies

Name	Total projects	Project(s) chosen			
Consortia projects					
i. Super-sized consortia	4	Greater London Authority (GLA), Nottingham City Council			
ii. Medium sized consortia (high value)	2	Liverpool City Region Combined Authority			
iii. Medium sized consortia (low value)	3	Blackpool Borough Council			
iv. Small sized consortia (high value)	6	North Yorkshire Council			
v. Small sized consortia (low value)	10	Cheshire East UA			
Single LA projects					
vi. Single LA with prior experience (High value)	13	Leicester City Council, Plymouth Council,			
vii. Single LA with prior experience (Low value)	9	South Derbyshire Council			
viii. Single LA with no experience	4	Wakefield Council			

3. Topic guides

This annex includes the topic guides used for interviews with stakeholders (project leads, local authorities, delivery partners, installers) and households. Responses to these discussions formed the evidence-base for each case study.

Project lead / Local authority / Delivery Partner Topic Guide

Department for Energy Security and Net Zero: Sustainable Warmth Fund Evaluation

Project lead / Local authority / Delivery Partner Topic Guide

Improving domestic energy efficiency is a key priority for the UK government, both in terms of meeting national climate change targets and supporting consumers to have warmer homes and lower energy bills.

To meet net zero targets, the UK's building stock will need to be substantially decarbonised, with all buildings achieving an EPC rating of C over the next 10 to 15 years.

Improving domestic energy efficiency is also critical for those living in fuel poverty. The recent surge in energy prices has exacerbated problems for those struggling to heat their homes, with 4.5 million households estimated to be fuel poor. It is important that these households are not left behind in the transition towards net zero.

The UK government has launched a range of measures designed to improve domestic energy efficiency. This includes the Sustainable Warmth Fund, which brings together two existing schemes – the Local Authority Delivery Phase 3 (LAD3) and Home Upgrade Grant Phase 1 (HUG1) – into a single funding opportunity for local authorities to upgrade the energy efficiency of low-income households living both on and off-grid.

Funding of up to £287m is available for LAD 3 to support low-income households heated by mains gas, whereas £219m has been made available for low-income households with homes which are off grid. The delivery timeframe for both scheme is from January 2022 to September 2023

To support the development of future domestic energy efficiency schemes, there is a need to capture robust evidence on how the Sustainable Warmth schemes have been delivered, including an understanding of local authorities' varied delivery models, how they have been implemented and to what extent this aligns with programme expectations.

Research Aims

- Understand how Local Authorities (LAs) have implemented HUG1 from the perspective of staff and delivery partners (Delivery partners are defined as an external organisation contracted to manage the delivery aspect of the project on behalf of the project lead)
- Provide evidence for the interplay between local contextual factors and delivery models for the success of the scheme delivery and implementation
- Identify what has worked well and less well in both design and practice
- Provide evidence for efficiency improvements and management processes for future schemes, particularly HUG2

Note to Moderators

Recruitment validation: During fieldwork, the moderator must confirm recruitment criteria of participants. Any discrepancies must be logged in the validation tab of the profile sheet and the moderator must notify the Project Director.

Data validation: Note that 5% of recordings/transcripts will be validated by an independent person and therefore any interview or group may be monitored.

Key contacts

Ramlatu Attah - ramlatu.attah@kantar.com

Milo Warby - milo.warby@kantar.com

Jan Paul Schlindwein – janpaul.schlindwein@kantar.com

Please note, this guide is not a script and is intended to be used flexibly, with participant responses guiding the flow of the conversation, topics covered in the order that they naturally arise, and probes used only when needed



1. Introduction

(2 minutes)

Introduce research, reassure about confidentiality and set tone of discussion

- Warm up and introduction
 - FREELANCERS introduce yourselves as 'working on behalf of Kantar Public' (not 'from Kantar Public')
 - Research on behalf of the Department for Energy Security and Net Zero I do not work for them, we are an independent research organisation
 - Aim of the discussion is to understand your views and experiences on the process of overseeing the delivery of domestic energy efficiency measures under HUG1 of the sustainable warmth fund.
 - The Department is particularly interested in understanding how HUG1 has been implemented and the ways in which local contextual factors affected the implementation and delivery of the scheme.
 - The Department also wants to understand to what extent implementation has aligned with expectations.
 - Not about success/failure, lessons learned
 - This information will help the Department to understand what has worked well and what should be improved. This will feed into the management processes for similar future funds and schemes, particularly HUG 2.
 - Interview length 90 mins
 - Research is confidential and voluntary your personal details will not be shared with the Department for Energy Security and Net Zero and participation will not affect your current or future relationship with the Department for Energy Security and Net Zero
 - Thank you leaflet check if received beforehand (in appointment confirmation email), else email after interview
 - Kantar Public's privacy policy can be accessed on our website: <u>https://www.kantar.com/uki/surveys</u>
 - Any questions?
- Recording

Ask participant for permission to record, then start recording and confirm consent [Note: Kantar Public shall ensure that recordings of groups or depth interviews are only conducted with consent and only used for the purposes for which the consent was given]

2. Roles and responsibilities

(5 minutes)

Explore the participant's role and responsibilities in the project as well as broader team organisation and (if applicable) consortium members roles and responsibilities

- Description of role and involvement in the project to date
 - What has your role and involvement in the project to date?
 - How long have you been in this role?
 - Do you have a dedicated team to manage the project. Why/Why not?
 - Who else is involved in the team? (understand each role and their responsibilities)
 - Whether roles have changed over time
 - Did you use a delivery partner? Probe role and responsibility
 - Were you were involved in directing / writing the bid?
 - If yes, how?, any others
- [FOR CONSORTIA ONLY] Understand roles and responsibilities of consortium members (SQ3.3)
 - Can you please describe the different roles and responsibilities of:
 - The Lead LA
 - Other Consortium members
 - How do responsibilities differ between lead and non-lead consortium members?
 - How fixed are roles and responsibilities and do they differ from how this was initially organised? Why?
 - Extent roles change over time
 - Briefly, were there any key lessons learnt regarding roles and responsibilities
- 3. Context

(5 minutes)

Understand the contextual environment of the LA/consortium, initiation and overall experience of participation in the scheme.

- Self-description of project (KEQ1)
 - How would you describe the project you work on? Particularly with regards to
 - Geography: urban, rural or mixed
 - Staff experience with similar funds
 - Staff expertise in delivering energy efficiency measures
 - Staff availability
 - [IF CONSORTIUM] Briefly, how similar and different members are regarding the following...?
 - Size
 - Geography: urban, rural or mixed
 - Fuel poverty levels
 - Management
 - Any other relevant similarities or differences

(Note how participant is <u>defining</u> each characteristic and <u>briefly how it affected</u> <u>implementation and delivery (if mentioned)</u>. Take note of the impact to refer back to in later sections)

• Understand organisation and budget

We're looking to understand how planning relates to delivery.

- If not covered above, "At bid stage, you estimated the costs that would be needed to deliver this project". Do you feel the scheme administrative budget is enough to support the effective management and organisation of the team?
 - Whether it is enough for implementation and delivery
 - *If no,* how it affected implementation and delivery of the project
- Explore reasons for/against consortium application (KEQ3/SQ 3.1)
 - [FOR CONSORTIA ONLY] How was the consortium application initiated?
 - Why they applied as consortium/single LA
 - Who decides project lead, and how
 - Reasons for project lead to lead application
 - Reasons for consortium members to join application
 - Probe on experience in bid as lead or non-lead consortium member
- Overall experience of SWF participation (SQ2.1)
 - Briefly, can you outline your LA's experience of participating in the Sustainable Warmth Fund? We will go into all of this in more detail later in the interview.
 - [IF EXPERIENCE WITH PREVIOUS SCHEMES] How SWF experience differs to previous phases/schemes
- 3. Governance, management and monitoring (15 minutes)

Explore the project governance provisions regarding (if applicable) consortium member management, use delivery partners, differences between delivery approach and bid as well as perceptions of projects success

- [FOR CONSORTIA ONLY] Understand management of consortium partners (SQ 3.4)
 - In terms of structure, how is the consortium organised?
 - How do consortium members typically engage with each other?
 - How is communication between members managed
 - Channels
 - Formats
 - Frequency
 - Thinking about the types of engagement you've described:
 - What works well?
 - Any particular enablers of effective engagement
 - What works less well? Why?
 - Any particular barriers to engagement
 - Barriers on members side, Lead LA or both?
 - How they could be overcome
 - Any changes they would make for future consortium organisation and engagement
- Explore differences between delivery approach and initial bid (KEQ4)

From the applications for SWF funding, and discussions with the Department of Energy Security and Net Zero we understand that some aspects of how you oversee and manage a project may be fixed, while others may change over the course of the project. For example, as a fixed element, consistent monthly board or steering group meetings might be used to cover regular updates on project progress. On the other hand, individuals responsible for project management and communication channels may be more flexible and reviewed on an ongoing basis.

- Which elements of your project governance model have been fixed, and which are more variable?
 - Benefits of fixed and variable elements
- What changes have been made to project planning and execution since the initial SWF bid? *If changes were made:*
 - What the problem/reason was
 - What the changes consisted in
 - Whether it was effective. Why/why not
 - Any unresolved issues
 - Any lessons learnt
- Understand stakeholder management (KEQ 11)
 - How do different stakeholders (i.e. Lead LA, consortium members, delivery partners, installers) engage with each other?
 - How do you manage these different stakeholders?
 - How is accountability ensured (understand mechanisms and tools). In particular of:
 - [FOR CONSORTIA ONLY] consortium members
 - Delivery partners
 - Contractors/installers
 - How poor performance is addressed
 - PILOTS: Moderator to note what participant considers poor progress
 - Which quality assurance measures are in place? Why are these used?
- Understand the use of delivery partners (SQ3.5-8)
 - Confirm which partner they used (if anyone) Refer to profile sheet information if needed.
 - Which elements of delivery do you use this partner for?. Prompt if needed:
 - Marketing
 - eligibility checking
 - procurement of installers
 - performance management of installers
 - retrofit coordination
 - retrofit assessment
 - quality checking
 - How do you procure delivery partners?
 - Whether it was easy or difficult to find delivery partner. If yes, why
 - Whether they worked with them before and how it affected procurement
 - Reasons for involving delivery partner

Prompt if needed: prior experience, lack of internal resource, lack of expertise, other reasons

- Who was involved in the decision-making to use and select this delivery partners?
 - Who made the final decision
- How communication with delivery partners is managed
 - Channels (email, letters, phone etc. How and why it differs)
 - Formats (written vs. in-person. How and why it differs)
 - Frequency (daily, weekly, monthly. How and when it differs)
- Delivery partner expertise
 - Training and skills
 - Competence
- To what extent delivery partner have met expectations
 - What doesn't work well?
- Any lessons learnt for delivery partner cooperation
- Understand data collection (SQ11.3)

We would like to explore a bit about data collected on the scheme

- [If not covered previously] Who responsible is for data reports in the LA and why
- What strategies and methods do you use for data reporting?
 - Any changes with the project evolving
- Are you dealing with any (other) barriers in data reporting?
 - How could they be overcome
- Understand perceptions/measurements of success (KEQ5)
 - How do you measure the success of the project?
 - KPIs/key outcomes
 - Extent this aligns with data collection requirements from the dept
 - What factors are most important in influencing the success or relative success of the project? (understand influence of project governance factors on key outcomes)
 - Prompt if necessary:
 - Prior experience
 - Quality of delivery partners
 - Staffing level, range and quality
 - Quality of comms with residents
 - Quality of installers/installation
 - Anything else
 - Considering these factors, what, specifically, would have helped drive greater success in this project?

4. Uptake

(10 minutes)

Explore the LA/consortium's process and approach to identify and engage eligible homes for the scheme

• Understand process to identify relevant and eligible homes (KEQ 6)

Which stakeholders (e.g. LA, delivery partner etc.) and team members (e.g. project managers etc.) are involved in the process to identify relevant and eligible homes?

- Who is leading and why
- how is work organised across members (understand division of labour)
- What methods and approaches are used to identify eligible homes?
 - Why specific method/approach is used
 - What advantages and disadvantages they identify with this method/approach
- Which data sources inform this method/approach?
- To what extent are adjustments (in method/approach) made for different households?
- What are the main challenges you face in identifying eligible homes?
 - How could these be overcome
 - Could others, e.g. the Department support and how
- Which categories of households tend to drop out before application?
 - Reasons they drop out
 - What information/evidence this is based on
- Any lessons learnt
- Explore the success of community engagement (KEQ 7)
 - How do you engage with households? If not mentioned, prompt:
 - Internal or external marketing campaign management
 - For external, separate contract or part of delivery partner contract
 - Why do you use this approach?
 - Which alternative strategies were considered and why they were not implemented
 - What worked well and what didn't
 - Can you describe the key milestones and approximate timings for community engagement?
 - If not mentioned, how soon after fund approval does the marketing and targeting process starts and how it affected implementation and delivery of the project
 - Do strategies differ by demographics, type of resident or household? In what way?
 - Any challenges in reaching particular types of households?
 - *If yes,* how they were overcome
 - To what extent does the success of community engagement affect delivery and implementation?
 - Any lessons learnt
- 5. Service delivery

(15 minutes)

Explore the delivery in practice covering installer recruitment, measurements and the perspective of households

• Understand installer recruitment (KEQ 8)

Who is involved in installer recruitment?

- Key stakeholder(s) and roles
- Who leads this and why
- [For Consortia] How is work organised across members (understand division of labour)
- How is the supply chain structured?
 - Use of external or internal procurement experts
- What is the involvement of installers during the assessment stage?
- [refer to procurement strategy from database] Why procurement strategy XY was chosen
 - What criteria are reviewed
- In terms of recruitment and procurement what are the:
 - Key challenges
 - Key enablers of success
- How/if these affect implementation and delivery of the project
 - How installers are onboarded
 - Content of onboarding
 - Format of onboarding
 - Time required
 - What worked well
 - What didn't work well
- Any lessons learnt
- Understand types of energy efficiency installations implemented through HUG1 (KEQ9)

Importance of PAS2035 - can you talk to me about the significance of following

- How measures are decided
- Who is involved in decision-making
- What dictates which measures are implemented?
 - For example, wall or loft insulation, central heating system installation or heating system upgrades
- Any challenges with certain measures? Why and how?
- Noticed any impact of COVID on supplier workforce/installation skip if participant unable
- Any lessons learnt
- Explore willingness of homeowners and landlords to take part
 - To what extent are homeowners and landlords receptive to proposed installations and measures?
 - *If not,* what were the common reasons for this and how was this managed
 - Whether LA staff have been trained on particular measures (such as ASHP technology)

- Any differences by households, landlords or measures
- Understand post-installation provisions
 - Were guides and information provided to household post-installation?
 - If yes, who developed it
 - Was guidance provided to installers?
 - If yes, who developed it
 - Are post-installation inspections are routinely carried out? Why/Why not?
- 6. Scheme requirements and impact

(5 minutes)

Understand reflections on scheme requirements and impact on approach to future energy efficiency schemes.

- Explore perceptions on the proportionality of scheme requirements
 - As you know, there are a range of requirements of LAs to take part in the scheme.
 Based on your experience, do you feel these are proportionate? (SQ1.2/3)
 - Unprompted, understand issues with specific requirements and impact on delivery
 - Understand perception of whether the following SWF requirements are <u>appropriate</u> and <u>proportional</u>:
 - Upgrades to target **low-income households** (with (with an annual income of less than £30,000 (or £31K) gross income) likely to be in fuel poverty
 - Properties to have an **EPC rating** of band D, E, F and G homes (band D will be capped at 30% for LAs applying for on-gas and off-gas funding, this will be 30% for on-gas and 30% for off gas properties)
 - Requirement for **domestic dwellings** primary focus will be to upgrade privately owned housing (New build or self-built homes which have not been previously occupied are not eligible for funding)
 - Installation of energy efficiency and heating measures compatible with the Standard Assessment Procedure (SAP) including wall, loft and underfloor installation and low carbon heating technologies.
 - Exclusion of fossil fuel heating systems
 - Contactors must be TrustMark registered and where applicable MCS certified (or accredited to a scheme that the Department is satisfied is equivalent)
 - The requirement to follow PAS 2030, PAS203
 - Any suggestions for future schemes
- Implementation of future energy efficiency improvements (KEQ 2)
 - Overall, how, if at all, has your LA's experience of delivering HUG1 affected the implementation of future schemes? (SQ2.1)
 - What one thing might they do differently on a similar project based on this experience
 - What one aspect would they retain from approach

- To what extent has involvement in SWF encouraged your LA's involvement in other future energy efficiency improvement initiatives or projects?
 - Which ones

7. Close

(2 minutes)

Final thoughts and close of conversation

- Any final thoughts
- Thanks and close

Post-field work admin:

- Upload audio recording to secure project folder, labelled as follows: JN_PROJECT NAME # [respondent number] AND TYPE_RESEARCHER INITIALS_DATE
- Complete analysis chart and save in secure project folder

Installer discussion guide

Department for Energy Security and Net Zero: Sustainable Warmth Fund Evaluation

Installer Discussion Guide

Background

Improving domestic energy efficiency is a key priority for the UK government, both in terms of meeting national climate change targets and supporting consumers to have warmer homes and lower energy bills.

To meet net zero targets, the UK's building stock will need to be substantially decarbonised, with all buildings achieving an EPC rating of C over the next 10 to 15 years.

Improving domestic energy efficiency is also critical for those living in fuel poverty. The recent surge in energy prices has exacerbated problems for those struggling to heat their homes, with 4.5 million households estimated to be fuel poor. It is important that these households are not left behind in the transition towards net zero.

The UK government has launched a range of measures designed to improve domestic energy efficiency. This includes the Sustainable Warmth Fund, which brings together two existing schemes – the Local Authority Delivery Phase 3 (LAD3) and Home Upgrade Grant Phase 1 (HUG1) – into a single funding opportunity for local authorities to upgrade the energy efficiency of low-income households living both on and off-grid.

A total funding of up to £287m is available for LAD 3 to support low-income households heated by mains gas, whereas £219m has been made available for low-income households with homes which are off grid. The delivery timeframe for both scheme is from January 2022 to September 2023

To support the development of future domestic energy efficiency schemes, there is a need to capture robust evidence on how the Sustainable Warmth schemes have been delivered, including an understanding of local authorities' varied delivery models, how they have been implemented and to what extent this aligns with programme expectations.

Research Aims

- From the perspective of installers, understand how Local Authorities (LAs) have implemented HUG1
- Provide evidence for the interplay between local contextual factors and delivery models for the success of the scheme delivery and implementation
- Identify what has worked well and less well in the delivery and implementation of the scheme
- Provide evidence for efficiency improvements and management processes for future schemes, particularly HUG2

Note to Moderators

Recruitment validation: During fieldwork, the moderator must confirm recruitment criteria of participants. Any discrepancies must be logged in the validation tab of the profile sheet and the moderator must notify the Project Director.

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Please note, this guide is not a script and is intended to be used flexibly, with participant responses guiding the flow of the conversation, topics covered in the order that they naturally arise, and probes used only when needed



1. Introduction

(2 minutes)

Introduce research, reassure about confidentiality and set tone of discussion

- Warm up and introduction
 - Introduce moderator and Kantar Public
 - FREELANCERS introduce yourselves as 'working on behalf of Kantar Public' (not 'from Kantar Public')
 - Research on behalf of the Department for Energy Security and Net Zero
 - Aim of the discussion is to understand your experience of installing energy efficiency measures funded by the Sustainable Warmth Fund as well as your general experience of working and engaging with [*relevant Local Authority*]
 - This information will help the Department to understand which factors and circumstances affected the delivery of the fund and inform similar future funds and schemes
 - Interview length 45 60min
 - Research is confidential and voluntary your personal details will not be shared with the Department for Energy Security and Net Zero and participation will not affect your current or future relationship with the Department for Energy Security and Net Zero
 - Thank you leaflet check if received beforehand (in appointment confirmation email), else email after interview
 - Kantar Public's privacy policy can be accessed on our website: <u>https://www.kantar.com/uki/surveys</u>
 - Any questions?
- Recording

Ask participant for permission to record, then start recording and confirm consent [Note: Kantar Public shall ensure that recordings of groups or depth interviews are only conducted with consent and only used for the purposes for which the consent was given]

2. Context

(15 minutes)

Understand the contextual environment, prior experience and perspectives on compliance requirements

- Introduction to their company. How they would describe their business. Prompt if necessary with:
 - o Service offer
 - Specialisation in energy efficiency retrofitting and, if so, measure types
 - Structure (centralised or with local hubs)
 - o Size
 - o Area covered

- Operation since...
- o General outlook on industry and local market

Any recent changes in business model

- Explore role and general perception of participation in HUG1 (SQ1.2/3)
 - \circ $\,$ Why they decided to take part in the scheme
 - What their responsibility (e.g., installation specific measures only or different measures) in the scheme was
 - What their responsibility (e.g., how much did they sub-contract vs delivery inhouse) for different aspects of the delivery process was
 - How successful the cooperation with the LA/consortium/delivery partner was overall. *Probe on what the respondent would characterise 'successful cooperation' as.*
- Understand prior experience of working for Local Authorities (LAs)
 - o Any previous involvement in similar LA-managed retrofit projects/schemes
 - o If yes:
 - What generally works well in cooperation with LAs
 - What doesn't work well in cooperation with LAs
 - Were there any changes made in advance of HUG1 to improve cooperation.
- Perceptions on required levels of compliance for participation in scheme (SQ1.2)
 - o Whether requirements for participation are regarded as proportionate
 - Why/why not
 - Distinguish between 'accreditation' and 'standards' (e.g., installer might be happy with the accreditation they went through as a business, but not with the requirements)
 - Whether meeting requirements was a challenge.
 - If yes, what in particular (single or multiple) and how was it overcome

3. Governance

(15 minutes)

Explore the governance of the project including engagement with LA/consortium and communication processes

- Understand installers awareness of LA delivery management
 - \circ What their awareness is of how the LA managed delivery
- Explore relationship with LA/consortium members (SQ3.8)
 - Who they engaged with
 - Whether it changed over time
 - Who their first point of contact at LA is
 - [FOR CONSORTIUM] whether they engaged with different LAs
 - o What worked well in the relationship with LA/consortium members

- What did not work well in the relationship with LA/consortium members
- Any improvement suggestions
- Understand changes in involvement over time (KEYQ4)
 - Whether their involvement changed over time. If yes, why and how
- Explore communication between installer and LA/consortium (KEYQ4.1)
 - How communication with LA/consortium was organised. Understand:
 - Communication channels
 - Formats
 - Frequency of contact
 - Whether they see the communication with LA/consortium as effective
 - What worked well in the communication with LA/consortium
 - What did not work well in the communication with LA/consortium
 - Any improvement ideas

4. Service delivery

(15 minutes)

Understand installer's perspective on recruitment, measure implementation and postinstallation provisions

- Understand installer recruitment (KEQ8)
 - How and when they were first contacted about the scheme
 - How the onboarding was organised
 - How long the onboarding was
 - What worked well
 - What didn't work well
 - Any improvement suggestions
 - Whether they received any training/support from the LA
 - If yes, whether it was helpful
 - If no, whether they would liked to receive it
- Understand measure implementation (KEYQ9)
 - Which measures they installed (INTERVIEWER NOTE: Access data on total measures installed by LA before interview in SW Data File, LA/Consortium Bid Documents, and SW Scheme Data to Feb documents)
 - How easy/difficult the installation was
 - Whether it differed by measure
 - Any challenges during installation. Prompt if necessary, with particular:
 - measures
 - households
 - buildings (e.g., flats, park homes, conservation areas)
 - external factors (e.g., weather)
 - Other?
 - Whether workforce availability was an issue

- Any impact of skills shortage, mobilisation of workforce in time, or COVID on installation
- Any issues around delivery times
 - If yes, how it impacted installation
- Any lessons learnt
- Understand post-installation provisions (SQ10.1)
 - To what extent LA provided aftercare guidance to them (e.g. requirement to issue user guides for residents)
 - Whether they felt supported by LA re aftercare requirements.
 - If no, what could be improved next time
 - Whether households had issues post-installation. If yes, what general characteristics and measure types caused these issues and how were they solved
 - Whether they carry out post-installation inspection. Why/why not
 - Routine inspection or exceptional

5. Close



Final thoughts and close of conversation

- If they could give a final piece of advice to the LA for similar future schemes. What would it be?
- Any other final thoughts
- Thanks and close
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Post-field work admin:

- Upload audio recording to secure project folder, labelled as follows: JN_PROJECT NAME # [respondent number] AND TYPE_RESEARCHER INITIALS_DATE
- Complete analysis chart and save in secure project folder

Households discussion guide

Department for Energy Security and Net Zero: Sustainable Warmth Fund Evaluation

Households Discussion Guide

Background

Improving domestic energy efficiency is a key priority for the UK government, both in terms of meeting national climate change targets and supporting consumers to have warmer homes and lower energy bills.

To meet net zero targets, the UK's building stock will need to be substantially decarbonised, with all buildings achieving an EPC rating of C over the next 10 to 15 years.

Improving domestic energy efficiency is also critical for those living in fuel poverty. The recent surge in energy prices has exacerbated problems for those struggling to heat their homes, with 4.5 million households estimated to be fuel poor. It is important that these households are not left behind in the transition towards net zero.

The UK government has launched a range of measures designed to improve domestic energy efficiency. This includes the Sustainable Warmth Fund, which brings together two existing schemes – the Local Authority Delivery Phase 3 (LAD3) and Home Upgrade Grant Phase 1 (HUG1) – into a single funding opportunity for local authorities to upgrade the energy efficiency of low-income households living both on and off-grid.

A total funding of up to £287m is available for LAD 3 to support low-income households heated by mains gas, whereas £219m has been made available for low-income households with homes which are off grid. The delivery timeframe for both scheme is from January 2022 to September 2023

To support the development of future domestic energy efficiency schemes, there is a need to capture robust evidence on how the Sustainable Warmth schemes have been delivered, including an understanding of local authorities' varied delivery models, how they have been implemented and to what extent this aligns with programme expectations.

Research Aims

• From the perspective of households, understand how Local Authorities (LAs) have implemented HUG1

- Provide evidence for the interplay between local contextual factors and delivery models for the success of the scheme delivery and implementation
- Identify what has worked well and less well in the delivery and implementation of the scheme
- Provide evidence for efficiency improvements and management processes for future schemes, particularly HUG2

Note to Moderators

Recruitment validation: During fieldwork, the moderator must confirm recruitment criteria of participants. Any discrepancies must be logged in the validation tab of the profile sheet and the moderator must notify the Project Director.

Data validation: Note that 5% of recordings/transcripts will be validated by an independent person and therefore any interview or group many be monitored.

Key contacts

Ramlatu Attah - ramlatu.attah@kantar.com

Milo Warby – milo.warby@kantar.com

Jan Paul Schlindwein – janpaul.schlindwein@kantar.com

Please note, this guide is not a script and is intended to be used flexibly, with participant responses guiding the flow of the conversation, topics covered in the order that they naturally arise, and probes used only when needed



1. Introduction

(2 minutes)

Introduce research, reassure about confidentiality and set tone of discussion

- Warm up and introduction
 - Introduce moderator and Kantar Public
 - FREELANCERS introduce yourselves as 'working on behalf of Kantar Public' (not 'from Kantar Public')
 - Research on behalf of the Department for Energy Security and Net Zero
 - Aim of the discussion is to understand the perspective and experience of households who benefited from energy efficiency upgrades to their homes as part of the Sustainable Warmth Fund which is funded by the Department for Energy Security and Net Zero
 - This information will help the Department to understand which factors and circumstances affected the delivery of the fund and inform similar future funds and schemes
 - Interview length 45 60min
 - Research is confidential and voluntary your personal details will not be shared with the Department for Energy Security and Net Zero and participation will not affect your current or future relationship with the Department for Energy Security and Net Zero.
 - Thank you leaflet check if received beforehand (in appointment confirmation email), else email after interview
 - Kantar Public's privacy policy can be accessed on our website: <u>https://www.kantar.com/uki/surveys</u>
 - Any questions?
- Recording

Ask participant for permission to record, then start recording and confirm consent [Note: Kantar Public shall ensure that recordings of groups or depth interviews are only conducted with consent and only used for the purposes for which the consent was given]

2. Context

(5 minutes)

Understand context of household and general conditions of their house/flat

- Explore household situation
 - Description of their home. Spontaneous, prompt if needed
 - Who they live with
 - Confirm if in house or flat
 - How long they have been living there
 - Confirm if home owned or rented
 - Feelings towards their home

- Understand the general conditions of their building/flat
 - Age, perceived levels of energy efficiency and why

Probe for conditions pre and post installation of measures.

Any other recent changes/upgrades

- If yes, who decided on these
 - Who suggested
- Attitudes towards energy saving/ environmental issues
 - Views on energy saving and energy efficiency generally and in the home
 - Views on environmental issues generally and in the home
 - How important are environmental considerations when it comes to changes made to – home, energy use
 - What else is important

3. Uptake

(20 minutes)

Explore household's SWF journey from first contact to decision making

- Triggers for first thinking about the scheme
 - How did they first hear/were contacted about the scheme
 - What were they told about the scheme? / Were they given any information / directed to resources informing them about the measure(s)?
 - What sources did they access / were they given / who did they turn to learn more about the scheme measures
 - How useful did they find the sources accessed?
- Understand perceptions on eligibility verification process (KEQ6)
 - What information they had to provide to take part in the scheme
 - Whether it was difficult to find this information, provide it to the LAs
 - If the information they had to provide was proportionate
- Initial impressions around having measures installed (KEQ7)
 - What were their expectations of getting measures installed? In terms of the process itself and the impact of measures.
 - Probe: Perception on price of bills, level of comfort, perceived level of disruption before the measures were installed.
 - Probe: Was there anything informing their expectations e.g. prior knowledge of scheme/ anecdotal evidence from others with measures
 - Did they have any concerns before the measures were put in place?
 - Use to probes above if concerns not mentioned in previous section.
- Understand the decision making process (KEQ7)
 - Who made the decision on which measure to get?

- People involved in the decision decision-making process
 - How they were in contact with them
 - How frequently
- If not involved, how did they feel about the decision, how much were they told about the measures and what the installation process would look like?
- The level of control they had in the decision-making process [i.e if they rent]
 - how this made them feel
- Whether they were happy with the decision. Why/why not
- (IF MULTIPLE MEASURES) Explore any differences in experience for each measure

4. Service delivery

(20 minutes)

Understand household's perspective on installed measures and satisfaction with the outcome

- Explore household perspective on measure implementation (KEQ 9)
 - What types of measures were installed in their home (use list below to identify specifics)
 - Probe: if differed from their initial expectations, in terms of type or what was discussed

Measures for reference:

- Cavity Wall Insulation
- External Solid Wall Insulation
- Internal Solid Wall Insulation
- Loft Insulation
- Pitched roof insulation
- Flat Roof Insulation
- Room in Roof Insulation
- Under-floor insulation: Solid Floor
- Under-floor insulation: Suspended Floor
- Park Home Insulation
- Air Source Heat Pump
- Ground Source Heat Pump
- Hybrid Heat Pump
- Biomass Boiler
- Solar Thermal
- Electric Storage Heating
- Heating Controls
- Hot Water Tank Insulation
- Hot Water Tank Thermostats
- Double or Triple Glazing
- Draught Proofing
- External Energy Efficient Doors
- Energy Efficient Windows

- Secondary Glazing
- Solar PV
- Energy Efficient Lighting
 - Who installed the measures
 - Trust in person installing measures reasons why
 - IF MULTIPLE MEASURES did the same installer do each measure. What was the experience of it?
 - How long the installation took (hours, days, etc.)
 - Installation completed in one session or multiple
 - IF MULTIPLE MEASURES: was the installation of different measures done at the same time? What was the experience of this?
 - Any issues during the installation
 - Probe: disruption to routine / home life, damage to the property, dangerous or unsafe practices, noise levels, behaviour of installers
 - Whether installation was fast/slower/as expected
 - If slower/faster, why they think that was
 - Whether they received any user-guides and/or guidance on the measures
 - If yes, whether it was helpful
 - If no, whether they would have liked to receive one
 - Did they feel they could contact the local authority for support
 - Why / why not
- Reflection on installation experience
 - Overall, was the installation experience positive or negative
- If broadly positive, explore drivers of satisfaction with installation and the impact that the installations had on daily life
 - Which aspects of installation made them feel positively about the experience
 - Satisfaction with length of installation process
 - Satisfaction with company providing measures
 - Aftercare provided, resolution of any post-installation issue and by who
 - Any positive impact that the installed measures had on daily life
- *If more negative,* explore drivers of dissatisfaction with installation and the impact that the installations had on daily life
 - Which aspects of installation made them feel negatively about the experience
 - Any concerns or difficulties
 - Any disruption (probe lightly if discussed in detail above)
 - Probe: Type of disruption
 - Probe: Level of disruption
 - [if multiple measures] impact of multiple measure(s) on level of disruption
 - Aftercare provided, resolution of any post-installation issue and by who
 - Ways that the installation process could be improved
 - Ways that the installation process disruption could have been mitigated
 - Impact that the installation/disruption had on day-to-day life

- Was the disruption worth it
- Understand expectation vs. reality and post-installation
 - Whether the installation experience met expectations
 - Were the measures visually appealing
 - If expectations were met on thermal performance, and noise (if relevant)
 - Any issues post-installation
 - In terms of something breaking or going wrong / in terms of missing information
 - If yes, whether adequate support was available?
 - Whether they received sufficient aftercare support from
 - Installer
 - Local Authority
 - If any post-installation inspection was carried out?
- Explore overall satisfaction with SWF journey
 - Prompt by journey stage:
 - Initial contact/first information
 - Selection/application
 - Installation
 - Usage

5. Close

(3 minutes)

Any final thoughts and close of conversation

- If they could give their Local Authority one piece of advice for similar future schemes, what would it be?
- Any final thoughts
- Thanks and close
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This publication is available from: www.gov.uk/government/publications/home-upgrade-grant-phase-1-evaluation

If you need a version of this document in a more accessible format, please email <u>alt.formats@energysecurity.gov.uk</u>. Please tell us what format you need. It will help us if you say what assistive technology you use.