



Department for
Energy Security
& Net Zero

Whole House Retrofit (WHR) and Social Housing Decarbonisation Fund Demonstrator (SHDF(D))

Joint Process Evaluation Report

Technical Annex

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Acknowledgements

This Technical Annex supplements the main report of the joint process evaluation of the Whole House Retrofit Competition (WHR) and Social Housing Decarbonisation Fund Demonstrator (SHDF(D)) prepared by Ipsos with Energy Saving Trust and Technopolis Group. The research would not have been possible without the inputs of DESNZ (then BEIS) policy and programme delivery colleagues, Ricardo PLC (delivery partner for both programmes), WHR and SHDF(D) project delivery teams, and the cooperation of all of those who participated in interviews and workshops.

Disclaimer

This report reflects the Social Housing Decarbonisation Fund Demonstrator and Whole House Retrofit projects up to June 2022. Some projects may have altered in delivery plans or scheme participation since this date. Where up-to-date information is available, full conclusions will be covered in the forthcoming outcome and economic evaluation report.



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Appendix 1 — Methodology

Evaluation approach

Overarching approach

The process evaluation was conducted on behalf of the Department for Energy Security and Net Zero (referenced throughout this report by its name at the time of delivery, BEIS). It was carried out in alignment with Magenta Book (HMG, 2020) guidance and, in this sense, examined the activities involved in the programmes' implementation and the pathways through which the programmes were delivered. The evaluation involved several analytical activities, including Theory of Change development, process mapping, project analysis (including developing typologies of projects), case studies, and whole house retrofit market and landscape analysis. The evaluation team has triangulated all of the findings from these analytical strands to generate the conclusions in this report.

The process evaluation lays important groundwork for the outcome and economic evaluations. For instance, the Theories of Change for both programmes specify how programme stakeholders intended for programme activities and inputs to lead to desired outcomes; these causal hypotheses will be tested through the impact evaluation. The typologies will also support the comparative analysis of project-level value for money. The economic evaluation will also build upon the process evaluation's description of and findings around programme resources and processes.

Evaluation framework

The process evaluation was framed around a set of 19 research questions, grouped into three themes: programme design and delivery, project design and delivery and emerging results. The evidence and the evaluation research available were mapped against each question (see Appendix 3), along with indicators and data sources. They underpinned the research tools which were used for secondary data analysis, interviews and workshops. Analytical outputs, such as the Theory of Change, process mapping and case studies, also generated new lines of inquiry which were integrated into the secondary and primary research.

Theory of Change

A Theory of Change is an analytical tool which maps the logical chain of events under which a policy or programme leads to its intended effects, and other contextual factors which may affect change. Theories of Change set out the structure of an intervention, the outcomes and impacts that it intends to achieve, how these fit within the wider policy and societal context, and the inputs and activities are intended to achieve them.

The programme-level Theory of Change for WHR was first developed by Technopolis Group in 2020 as part of a Study to Scope a Future Evaluation. For SHDF(D), in late 2020, BEIS developed a Benefits Map as part of the Green Economic Stimulus work, which set out the

primary outcomes that the SHDF(D) expected to achieve and the policy actions / aspects of SHDF(D) that would be expected to contribute to these. Also in November 2020, Ipsos, under the GHG-LAD contract, held a cross-Green Economic Stimulus Programme ToC workshop to identify commonalities and divergences in how the four programmes expected to achieve their common goals (around fuel poverty reduction, supporting jobs, energy savings, etc.). Ipsos then held a further workshop on WHR and SHDF(D) in April 2021 to further probe on WHR and SHDF(D) programme context (and potential enablers and barriers within it), design assumptions and anticipated changes, as well as the kind of project typologies that they were expecting to see in the programmes (in order to understand ‘what works’ in whole house retrofit). 12 delivery staff members from both programmes attended the workshop and contributed points which supported Ipsos’ understanding of the programmes and the development of the evaluation frameworks and research tools.

In April 2021, as part of the WHR and SHDF(D) Joint Evaluation Plan, Ipsos produced a summary Theory of Change for both programmes. This drew upon all of the evidence and understanding described above, as well as programme strategy documents and scoping interviews with BEIS.

In August 2022 these Theories of Change were updated for this process evaluation using information gathered through a further review of programme and project reporting, and consultations with BEIS and its delivery partner, Ricardo. These updates reflected more accurately how the programmes were (a) conceived of by the BEIS policy and delivery teams, and (b) how they were actually delivered. The 2022 Theories of Change also provided more detail on how the programmes’ processes were intended to lead to the programmes’ outcomes and impacts, and they showed how the programmes fit within BEIS’ wider policy strategies. The programme Theories of Change are presented in Chapter 3.

Process mapping

Process mapping is an analytical activity typical in process evaluations, which aims to describe in detail a programme’s delivery components and to understand how these support or hinder timely, cost-efficient and effective delivery. Ipsos developed an initial programme level process map to discuss with BEIS and the delivery partner in consultations. This was then revised and incorporated into the Theory of Change and used to frame the evaluation of programme and project design and delivery in Chapters 3 to 6.

Project case studies

Two waves of project case study inform the overall evaluation of WHR and SHDF(D). The first wave, which has informed this process evaluation, aimed to provide a deep dive into selected projects’ contexts, aims, design, delivery, and performance to date. The second wave will inform the impact evaluation. Seven case studies were developed as part of the process evaluation across the following eight SHDF(D) and two WHR projects:

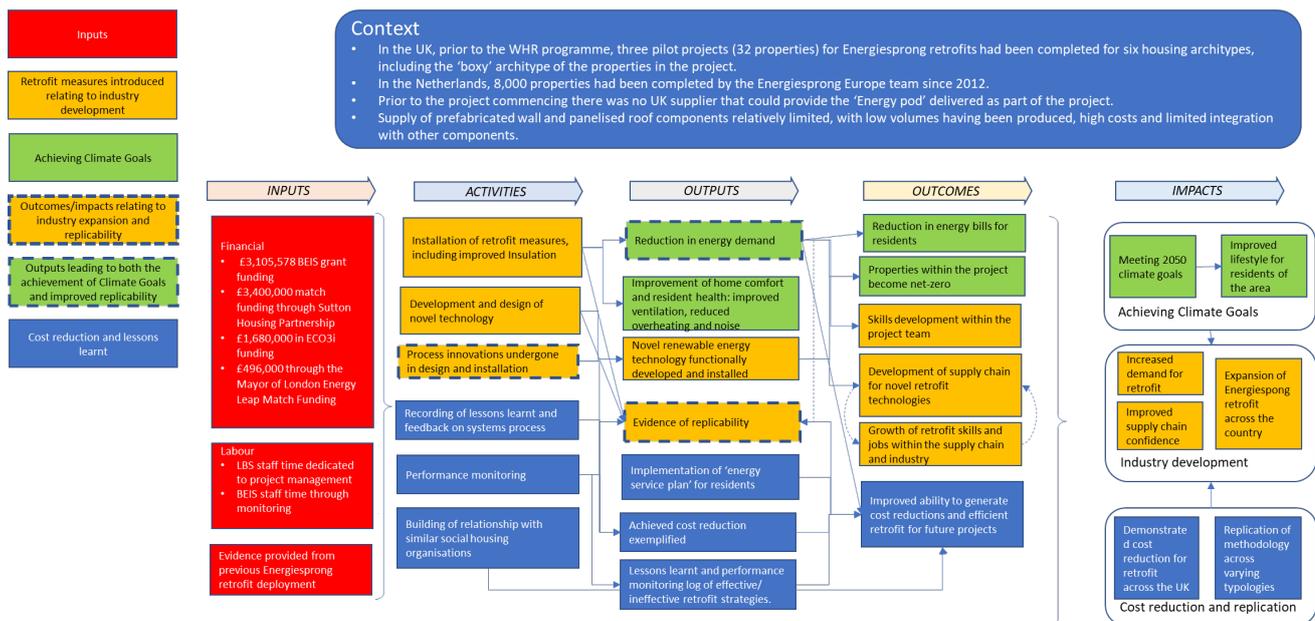
- X-tra Z (SHDFD-128 Manchester City Council)
- Energiesprong Sutton (WHR-104 London Borough of Sutton)

- Walkways 21Zero, Camelford Net Zero and Morland and Talbot Grove House (SHDF-105,134, 117 Royal Borough of Kensington and Chelsea)
- Clarion Housing Group Advanced Retrofit Project (SHDFD-123 Fenland District Council)
- Destination Zero 1 and Destination 2 (WHR-106 and SHDF-112 Nottingham City Council)
- Warmer Homes Argyll and Bute (SHDF-106 Argyll and Bute Council)
- Alva Community Regeneration Through Decarbonisation (SHDF-120 Clackmannanshire Council)

These were selected to ensure coverage of urban and rural locations, a geographic spread through the country, projects of different sizes, and both WHR projects, as well as projects which had different impetus for participation (from a focus on residents (Walkways / Camelford / Talbot Grove House), local regeneration (X-tra Z Manchester), through innovation (Energiesprong Sutton) and hard-to-treat homes (Warmer Homes Argyll and Bute, Alva Community Regeneration), to developing a blueprint for retrofit of the landlord’s housing stock (Clarion Housing Group Advanced Retrofit Project).

Wave 1 case studies worked to generate more detailed understanding of project examples of whole house retrofit and to lay the groundwork for the second wave which will assess project-level impact. As part of the case studies, the case study leads produced project-level Theories of Change (see Figure A1.1) and provided insights into some of the project-specific challenges, barriers and enablers of progress. The leads drew on information from site visits, interviews, and project documentation, but leads were also encouraged to conduct wider research to fill in gaps in understanding or to interrogate interesting findings.

Figure A.1 Example project-level Theory of Change (Energiesprong Sutton)



Project typology analysis

Between February 2021 and June 2022, Ipsos undertook an extensive review of programme documentation for the evaluation on a rolling basis. This covered project monthly reporting, milestone evidence, MO site visits, Programme Board presentations and minutes, Lessons Learnt libraries, BEIS delivery team compilations of evidence. In particular, Ipsos undertook two distinct sets of analysis of projects:

May 2021: an in-depth analysis of the projects funded from project application data, mapping key information on project size, coverage, methodologies, and project contexts to feed into the team's understanding of projects and variation between them.

January to March 2022: further detail on:

- **Project process mapping:** covering five retrofit stages: pre-project / application stage design; project start-up; pre-installation works; installation; and handover and post-works activity. This analysis was completed within a matrix which set out, under each stage, several probes guiding analysts to interrogate and analyse the project documentation against key themes of the evaluation (which linked to the evaluation questions). Where the analysis revealed significant gaps in Ipsos' understanding, Ipsos requested further information from project teams. The analysis fed into the analysis of project processes in Chapter 4.
- **Resident journey mapping:** To understand more about residents' experience of each project, Ipsos mapped out how projects engaged residents and any resident perspectives reflected in project reporting and project delivery activity (processes) at each retrofit stage. The analysis of the resident journey is presented in Chapter 4.
- **Consortium and delivery approach mapping:** For each project, Ipsos mapped out the consortia composition and delivery approaches from project applications, BEIS project team analysis, and PAS 2035 guidance on whole house retrofit roles. The purpose of this analysis was to develop a typology of procurement approaches and team formations, as well as project management approaches. This analysis also feeds into the project typology analysis presented in Chapter 4.

Whole house retrofit market and landscape review

From May to July 2021, Energy Saving Trust conducted an analysis of the whole house retrofit market and landscape. The purpose was to understand the baseline at the launch of SHDF(D) and before either programme had begun construction works. The analysis covered:

- Definitions of whole house retrofit.
- Key stakeholders driving innovation and scale-up in whole house retrofit (independently of Government interventions).
- The size and nature of the whole house retrofit market.
- Companies, sectors and organisations involved in delivering whole house retrofit approaches.

- The history and evolution of the whole house retrofit market.
- Whole house retrofit standards (including PAS, but also Passivhaus and others).
- Government policy to date and Government-funded programmes which have contributed to developing the whole house retrofit market.
- Retrofit technologies and process innovations, example projects (in the UK and in other countries).
- Expert views on the future of the whole house retrofit market.

The analysis drew on policy documents and grey literature on the whole house retrofit market and interviews with eleven industry representatives (including academics, architects, consultants, regulators and whole house retrofit solutions providers) (see the WHR Expert Discussion Guide in Appendix 6).

The analysis provided insights into the local authorities which already had experience in whole house retrofit (and those which did not) as well as the primary organisations and companies active in whole house retrofit. Ipsos triangulated the independent evidence gathered for this analysis, with views expressed by programme participants in relation to challenges faced in project delivery, and this strengthened our findings.

Analysis of the delivery and performance of PAS 2035 within the programmes

From April to September 2022, Energy Saving Trust conducted an in-depth study, within the scope of the process evaluation, into how PAS 2035 is being delivered in practice. This had a specific focus on the additional costs of delivering PAS 2035 to projects and delivery challenges affecting quality and customer experience.

The research was conducted to enable policymakers, accreditation bodies, the British Standards Institute (BSI), and the whole house retrofit supply chain understand opportunities to improve implementation of the PAS 2035 standard, inform future policy and scheme design to implement PAS more effectively, and inform the development of support and guidance on the interpretation and implementation of the standard. The research was timed to fit in with the BSI review of PAS 2035.

The study team reviewed the PAS 2035 standards documentation and existing evidence of delivery on the standard (including information gathered to May 2022 through the evaluation). Energy Saving Trust then conducted informal discussions with key stakeholders involved in the development and deployment of the standards to explore current delivery, any challenges, and costs. Ipsos and Energy Saving Trust developed the topic guides for these discussions and the key research themes.

The team then analysed all evidence gathered using a framework analysis approach (NatCen 2011)¹. They also developed a cost model using process mapping of the PAS 2035 standard, which involved developing a list of all tasks performed by the four PAS 2035 roles and sourcing cost data (collected separately by BEIS and supplemented through Energy Saving Trust's research) and assigning associated with each task. This built upon the team's understanding of

¹ <https://www.natcen.ac.uk/our-expertise/methods-expertise/qualitative/framework/>

PAS 2035 costs from the 2019 ECO3 Regulatory Impact Assessment and it also drew on the Green Book Standard Cost Model (which involves collecting data on the quantity, frequency, time and tariff of a compliance activity to derive an estimate of its costs).

The analysis was presented internally to Government stakeholders and has also been integrated into this report.

Secondary data reviewed

Table A1.1 provides details on the secondary data sources used in this analysis, including the timeframes covered by the data and the corresponding analytical output. Some of the analytical outputs were narrative summaries of the content of the data, structured to map against the evaluation's research questions; and some were developed as matrices which mapped project or programme-level information against research questions or themes.

Table A1.1 Secondary data sources

Data Source	Coverage	Analytical output
WHR		
Project applications (unsuccessful and successful)	August 2019	Mapping and review of project design (matrix)
WHR milestone schedules	November 2019 to July 2022	Project progress analysis (narrative)
Key Performance Indicator (KPI) Reporting	November 2019 to July 2022	
The WHR monthly report tracker, which contained all monthly reports completed by the project teams and delivery partner.	November 2019 to July 2022	Project barriers and enablers and project delivery analysis (narrative)
BEIS governance notes	April 2021 to June 2022	Project progress, risks and issues (narrative)
SHDF(D)		
SHDF(D) application documents (unsuccessful and successfully)	November 2020	Mapping and review of project design (matrix)
Project-level milestone schedules and claims evidence	January 2021 to May 2022	Project barriers and enablers (narrative) and project delivery analysis (matrix)
Project monthly reporting, BEIS programme and delivery partner reports, site visit notes and scheme executive summary	January 2021 to June 2022	
BEIS governance notes	January 2021 to June 2022	Further analysis of project design and delivery, barriers and enablers (integrated directly into this report)
Project-level monthly reports and site visits	January 2021 to May 2022	
Project-level Interim Benefits Report	February 2022	
Project Change Requests	February to June 2022	

Primary Data Collection

The Table A1 overleaf shows the breakdown of the number of data collection activities completed per the research strands, including details of target numbers, topics covered, interview length and the sampling approach.

All interviews (except for two interviews with the Delivery Partner) were conducted virtually using Microsoft Teams. These semi-structured interviews used the topic guides provided in Appendix 6. The majority of interviews were recorded using OBS recording software, with the recordings stored on a secure server then transcribed either using a third-party contractor, TakeNote, or summarised internally. Notes from interviews were organised in a thematic analysis framework for each strand, allowing for comparison of key themes across each interview during analysis.

Table A1. Summary table of primary research completed for the Process Evaluation

Research Strand	Achieved interviews	Sample Approach	Target # interviews	Topics Covered	Timing
Scoping interviews					
BEIS	4 (5 people)	Purposive approach – team members holding specific knowledge selected – contact details shared through BEIS	4	Programme rationale and design, policy context, set-up process, anticipated challenges	March 2021
Delivery partner	2		2		
Qualitative depth interviews					
WHR delivery team	4 (6 people)	Purposive approach – team members holding specific knowledge selected – contact details shared through BEIS	6 (12 people)	Process mapping, delivery effectiveness and efficiency, views on lessons learned	June - July 2022
SHDF(D) delivery team	1 (2 people)		2 (3 people)		
Delivery partner	2		2		
Project lead / key team member interviews	12 (14 people)	Census approach – contact details shared through BEIS	12	Detailed descriptions of project design and delivery, delivery challenges and mitigation, experience of and views on the programme	June – Sept 2021
	11 (17 people)		11		Jan – June 2022
RLO interviews	7 (9 people)	Census approach – contact details shared through BEIS	10	Detailed descriptions of the tenant journey, resident liaison activities	April – June 2022
Withdrawn projects	2 (3 people)	Census Approach – contact details shared through BEIS	2	Experience of the programmes, reasons for withdrawals, retrofit activity outside of the programmes, future plans	April – June 2022
Unsuccessful bidders	2 (SHDF(D) only)		8	Experience of bidding, retrofit activity outside of the programmes, future plans	June – Sept 2021

Whole House Retrofit and Social Housing Decarbonisation Fund Demonstrator: technical annex

Research Strand	Achieved interviews	Sample Approach	Target # interviews	Topics Covered	Timing
Manufacturers and distributors of energy efficient and low carbon heating materials and technologies	15 (insulation (4), heat pumps, heat recovery and ventilation (4), PV and energy storage technologies (3) and windows and doors (2)).	Long list identified through project bids, web-searching and identification through Energy Saving Trust's networks. Participants were sampled to cover a mix of businesses proportionate to the types of measures being implemented under the programmes. Amongst those selected were a small number of manufacturers who also participated in the programmes.	15	Awareness and views on the programmes, general views on the retrofit market and the effects of Government funding, ability to deliver to the capacity required by the schemes. The topic guide was designed to extract information from the perspective of the manufacturer and to avoid overlapping with the installer interviews and maximise the data from a manufacturing perspective.	June – Sept 2021
Expert interviews for the Market and Innovation Landscape Analysis	11	Purposive approach from Energy Saving Trust's contacts in the retrofit industry specialists including architects, consultants and academics.	10	Status quo of the whole house retrofit market, approaches to whole house retrofit, supply chain viability, views on the programmes / Government funding on retrofit	March – June '21
PAS 2035 Practitioners	10	Convenience sampling from participating and non-participating PAS2035 practitioners from Ipsos site visits and Energy Savings Trust contacts in the retrofit industry.	10	How PAS2035 had been delivered in practice, any challenges in implementation, early insight into costs and benefits on retrofit installation planning and delivery.	June 2022
Participating residents	0	Convenience approach for the Process Evaluation, depending on which projects would be able to help Ipsos arrange contact.	10	N/A – intended to cover resident behaviours, experience of the programme, motivation for participation and expected results	N/A
Non-participating residents	0		Up to 10	N/A – intended to cover reasons for non-participation, experience of the (neighbouring) installations, any evidence of retrofit or energy efficient behaviours outside of the programmes	N/A
Installers / contractors	0		10	N/A – intended to cover experience of delivering retrofits under the programmes, how partnerships were formed, emerging effects on business growth and jobs, and costs	N/A

Whole House Retrofit and Social Housing Decarbonisation Fund Demonstrator: technical annex

Research Strand	Achieved interviews	Sample Approach	Target # interviews	Topics Covered	Timing
TOTAL depth interviews	83				
Other qualitative data collection					
Site visits	5 visits, covering 9 projects	Ipsos participated in five site visits covering nine projects: 1.The Gloucestershire SHARe and CaRe Demonstrator project in Stroud. 2.The Retrofit of Electrically Heated Homes in Wychavon. 3.The Destination Zero I and Desitination Zero II projects in Nottingham, and the Nottinghamshire Net Zero Carbon Housing Demonstrator. 4.The Walkways 21Zero, Morland and Talbot Grove House, and Camelford Net-Zero projects in Kensington and Chelsea. 5.The Social Housing Retrofit Accelerator project in Hammersmith.	5	To fill information gaps found in either the portfolio analysis or the project lead and RLO interviews, and to provide understanding of the project specific contextual factors.	May – July 2022
Meetings shadowed	4 x Learning Community meetings 1 x project closure interview (Warwick)	Observation at 4x Learning Communities	N/A	Ipsos attended in observation capacity. Learning Communities involve presentations from different projects and/or external stakeholders to share knowledge about innovations, challenges and solutions.	April 2021, February 2022 March 2022, April 2022
Workshops	Theory of Change workshop	Key BEIS delivery staff were invited and attended as was possible	N/A	To understand more about programme rationale, objectives, wider context, mechanisms and nature of projects funded.	April 2021
	MO workshop	Census approach (all seven MOs, as well as the Delivery Partner director and manager attended)	N/A	To gain insights from the MOs into project typologies and relative success / emerging results, as well as their views on delivery effectiveness.	July 2022

Interviews

The purpose of the interviews was to gain different perspectives on the programme and understand the different roles and experiences of those involved. Ipsos designed the topic guides using the Process Evaluation Matrix, as well as emerging themes, points of interest and lines of inquiry. Ipsos recorded and transcribed the interviews or, if consent to record was not given, interviewers took notes under each question asked in the topic guide. The team then summarised the findings per group by emerging themes and by the evaluation questions set out in Table A1.

Site Visits

In the latter half of the process evaluation, BEIS began conducting physical site visits (where these had previously been virtual and conducted by the delivery partner). BEIS invited Ipsos to join them during these official visits in an observational capacity. As such, the visits were not intended as opportunities for Ipsos to conduct confidential and independent data collection. However, the visits offered an excellent opportunity for the Ipsos teams to observe the projects in progress, to meet key project stakeholders, including installers and residents, and to ask some initial questions. Social Housing Retrofit Accelerator

Ipsos researchers conducting the site visits were asked to make observations on aesthetics, resident experience, innovative methods or technologies adopted, project partner and subcontractor relations, and relationships between the project teams and residents. The site visit template is provided in Appendix 5.

Workshops

Ipsos delivered two separate workshops during the course of the process evaluation:

- Theory of Change workshop – conducted with BEIS staff in April 2021, over two hours, covering both programmes, but with a greater focus on SHDF(D). The purpose of the Theory of Change workshop, covering was to understand more from BEIS about the design of the programmes, their intended outcomes and impacts, the contexts in which they were to be implemented, the underpinning programme assumptions and potential delivery risks.
- MO workshop – this was carried out, over three hours, with the seven delivery partner monitoring MOs who covered both WHR and SHDF(D). It took place in July 2022, was audio-recorded and transcribed, and its purpose was to gain MOs' expert insights into the projects and programmes. MOs were invited to share their expertise on projects, their experience of supporting BEIS in the delivery of the project and their views on lessons learned for both BEIS and projects. The findings fed into all sections of this process evaluation. The design of the workshop is described in Appendix 4.

Research Ethics

Data protection

Secure and ethical handling of data is a key priority for Ipsos and its partners Energy Saving Trust and Technopolis, as well as for Government. Ipsos and partners are compliant with the highest regulatory standards for the legal and safe processing of personal and/or sensitive data: European General Data Protection Regulation (EU) 2016/679 (GDPR), UK Data Protection Act 2018, Market Research Society Code of Conduct, ISO 27001, ISO 20252 and ISO 9001. The company is also registered with the ICO. These commitments form a vital and integral part of Ipsos' quality, compliance, and information security management system (its Business Excellence System).

Conducting research in a manner that reduces personal harm

The activity of delivering multi-million-pound grants to retrofit homes at scale is stressful and it is clear from our data collection that the delivery of the programmes and projects did cause inconvenience or burden to those involved. For example, in mid-2021, project teams were busy writing applications for further funding under SHDF Main Fund Wave 1 and were not available for interviews. Interviews with project and programme delivery teams were set up at times that were convenient to the participant. During busy times, fieldwork was paused and there was greater recourse to existing documentation.

Consent to participate and privacy

Throughout primary research, Ipsos and its partners maintained strict confidentiality of stakeholder details.

All research adhered to the Market Research Society Code of Conduct. Interviewee participation was voluntary, with informed consent, with all participants provided with an information sheet and privacy notice initial communication. Following this, before the interview began all participants were made aware that their participation was voluntary and that the information provided would be treated in confidence by Ipsos / its partner, and that all information would be anonymised unless otherwise stated. For the interviews and workshops recorded, consent was sought from the participant beforehand, with the transcription being used for analysis purposes. Where requested, interview notes were shared with participants afterwards.

Across all research strands, participants were asked whether they would be comfortable with being directly attributed to quotes in evaluation outputs. Data collected is presented in the report according to participants' preferences regarding anonymity and confidentiality.

Given the small number of projects (and individuals involved), we were unable to provide detailed descriptions of the participants for whom we have provided quotes, as this would risk identifying them. Therefore, throughout this report, most quotes have simply been attributed to their professional role (such as "Project Lead").

Supporting research participation

For this process evaluation, research participation was only challenging to the extent that the Ipsos had to take the schedules of project teams and the delivery partner into account when organising interviews. Ipsos conducted virtual interviews with RLOs, BEIS and the delivery partner. As no residents or installers were interviewed, research participation access for these groups was not considered.

Protecting against bias and appropriateness of research methods

Due to some of the barriers and research decisions described above, it was not possible to conduct qualitative interviews with up to 10 residents and up to 10 installers. The views of residents and installers were gathered through site visits where this included meeting residents and contractors, but in these cases, Ipsos was only able to ask questions in front of BEIS, the Delivery Partner, and project delivery teams, thus limiting the independence and creating a risk of bias in the results.

Elsewhere, Ipsos and its partners have sought to minimise bias in its analysis by triangulating the views of different stakeholders including programme and project delivery teams and external actors (retrofit experts and the supply chain). The evaluation team has also consulted literature and cross-compared project documentation to obtain the most comprehensive understanding of the programmes and projects.

Research Limitations

The findings presented in this process evaluation are subject to the following limitations:

Limited coverage of project handover and closure processes: By 30th June 2022, only one in 18 SHDF(D) projects and neither of the two remaining WHR projects had closed. 255 SHDF(D) and 14 WHR properties had completed handover. Project closure reports were not yet submitted and available to the evaluation team. The team was therefore only able to collect limited insights into how this stage was being implemented (through descriptions of intended approach and through some data collected at site visits and through some interviews with Project Leads).

Very limited representation of the views of tenants and installers: Due to project delays, it was not possible to conduct the first wave of tenant and installer fieldwork as intended under the original evaluation design. To understand more about the tenant and installer perspective, Ipsos conducted interviews with RLOs, carried out a more extensive analysis of project processes and the resident journey using project documentation, and spoke, where possible, to residents, installers and contractors during site visits. Nonetheless, this process evaluation is limited in the extent to which it represents these stakeholders' experiences of the programmes

Limited representation of unsuccessful applicants: The evaluation team was only able to engage two unsuccessful applicants to the SHDF(D) out of a target of ten. This was because of missing contacts and non-response. To supplement this data, Ipsos also reviewed a small

expression of interest survey that had been conducted by BEIS prior to the official launch of SHDF(D). This gave some insight into levels of interest in SHDF(D) and regional variation in interest. The team also interviewed two project teams who had withdrawn from WHR and SHDF(D) to understand the perspectives of non-participating local authorities (who had originally expected to participate in the programmes).

No representation of the views of non-applicants: For non-applicants, data sharing permissions had not been included in the expressions of interest activities set up by BEIS at the outset of the competitions, preventing BEIS from sharing these details with the evaluation team. To develop a range of views from local authorities applying to WHR and SHDF(D), the evaluation team gathered insights from successful and withdrawn project teams, in addition to the BEIS and Ricardo delivery teams.

Adjustments to evaluation design during delivery

As WHR and SHDF(D) evolved and the context in which they are delivered also changed, the evaluation team adapted aspects of evaluation design. The evaluation team also made adjustments to the evaluation approach and methods to account for emerging ethical issues, as described above.

Appendix 2 - Process Evaluation Matrix

Strand	Evaluation question	Programme Documentation	Project Documentation	Project Lead Qual	Tenant Qual	Tenant Quant	Installer Qual (here 'installer' may include other project partners too)	Installer Quant (i.e. collection of data to fill gaps in project monitoring data on outcomes and costs)	TLO Qual	BEIS/Ricardo Qual	Expert Qual	Manufacturer Qual	Other market stakeholder qual (e.g. auditors, trainers, etc. - shared with GHGVS evaluation)	Non-participating SHP evidence
Portfolio development / design	How effective was the competition in attracting viable bids?													
	What were the key facilitators and barriers to success?													
	Why did WHR only fund social housing bids?													
	How did scheme design influence project design?													
	How did LAs and installers form partnerships?													
	What was the criteria / process for LAs' selection of housing stock?													
	What was the rationale for LA involvement in programmes?													
How do/did LAs otherwise implement whr in the absence of the programme (additionality)?														
Delivery	What support was provided by BEIS & Ricardo to projects?													
	What are the barriers and enablers to programme delivery?													
	How do LAs engage installers?													
	How do LAs engage clients?													
Results innovation	How do LAs deliver the projects?													
	What innovative products and methods have been introduced in projects?													
	To what extent was this influenced by the programme, if at all?													
	What methods have been used for cost reduction?													
Installer market	How have projects progressed towards achieving retrofit cost reduction?													
	What are the barriers and enablers to cost reduction?													
	How have LAs & Ricardo supported cost reduction?													
	How has the programme influenced supplier confidence, if at all?													
Costs	What demand exists in the whr market to engage in the programmes & with PAS2035?													
	What is the role of PAS2035 in projects and installation quality?													
	What skills and capabilities have been created / supported by SHDF(D)? Are they sustainable? Transferrable?													
Costs	Costs of whole house retrofit and categories of costs													
	What are the project methodologies for calculating costs reductions (incl. life cost calculations and efficacy / value for money considerations)? /													
	Has the process of tendering for and selecting projects led to value for money being achieved?													

Green cells indicate sources that are expected to answer the question and amber cells indicate sources that may answer the question or may support a partial answer.

Appendix 3 – Monitoring Officer Workshop Questions

A workshop was held between Ipsos and Ricardo Monitoring Officers (MOs) on the 28th July 2022. The objectives of the workshop were:

- To understand how MOs categorise and group projects.
- To gain their insights into what went well / less well with projects.
- To understand MOs' role in delivering the programme.
- To gather their insights into delivery lessons.
- To understand any differences in the delivery of SHDF(D) and WHR projects,
- To understand emerging benefits, unintended consequences and impacts of projects.

The workshop had the following agenda:

09.30 – 09.50: Arrival and introductions

09.50 – 10.20: MO perspectives on the SHDF(D) and WHR projects and their typologies

10.20 – 10.50: Project-level successes and challenges – what lessons can be learned?

10.50 – 11.00: Break

11.00 – 11.15: Post-Implementation Review (BEIS Governance) questions - recorded, with permission

11.15 – 11.35: MOs' day-to-day role and its evolution

11.35 – 11.55: Perspectives on SHDF(D) / WHR delivery

11.55 – 12.15: How learning from SHDF(D) / WHR has been and/or will be integrated into the future waves of SHDF.

12.15 – 12.30: Final questions on processes / any other business

The workshop was structured along the following questions:

1. How the MOs would, based on their experience of the projects, categorise the projects – what commonalities are there between projects in terms of e.g. the technologies they are applying, their project management approach, their procurement and supply chain methods, other typologies?
2. What projects are the most and least 'typical'? Which projects stand out for you and why?
3. What differences, if any, can be observed between SHDF(D) and WHR projects?

4. Which projects would you consider a 'success' and why? Which ones less so?
5. What has been your day-to-day role in the programme and how this has evolved? What has worked well / less well?
6. What has been your overall experience of working on these programmes: what has gone well / less well, good practices, challenges?
7. What lessons do you think that (a) BEIS, (b) Delivery Partner / Ricardo, and (c) future MOs need to take into account in the Main SHDF / other similar programmes?

In addition, BEIS requested that 15 minutes of the workshop be dedicated to the MOs feeding back on the following operational questions which would be anonymously recorded and feed into BEIS' Post-Implementation Review of SHDF(D).

(a) Clarity of BEIS' Communication

How effective was communication from BEIS in setting out clear asks from and/or replying to queries from Ricardo and MOs? Please share an example of what worked well and what could improve.

(b) Clarity of BEIS' artefacts, templates, and ad hoc requests for information

How effective were BEIS monitoring templates and artefacts in enabling collation of relevant and clear monitoring data from LA projects? What worked well? What was less effective?

(c) BEIS' support to monitoring officers

To what extent did BEIS support effective MOs operations? Do you identify any areas where additional support would be beneficial in the future of the SHDF scheme?

(d) BEIS' support to project leads

To what extent did BEIS support effective LA Project Manager operations? Do you identify any areas where additional support would be beneficial in the future of the SHDF scheme

The workshop was recorded with the consent of the MOs and the operational questions posed by BEIS recorded verbatim. To seek permission, Ipsos shared the following notification on a slide with the MOs before starting the recording.

We would like, with your permission, to record the meeting for accuracy in our note-taking. We would like to develop a note of the meeting in which no names individuals (MOs, BEIS colleagues) will be mentioned. We can share this note in advance of sending to BEIS with you so that you can redact any things you find disclosive or problematic. In addition, with your permission, BEIS would like Ipsos to record 15 minutes of the session to annotate verbatim answers to some operational questions for inclusion in a post-implementation review.

Appendix 4 – Site Visit Template

Key data on the site visit

[PROJECT(S) / LOCATION NAME] site visit

Ipsos team: [LIST NAMES]

Date of Visit: [ADD]

Other attendees: [ADD]

Stakeholders spoken to: [DO NOT NAME INDIVIDUALS UNLESS PERMITTED, BUT STATE THE STAKEHOLDER TYPE AND, FOR BUSINESSES/PROJECT PARTNERS, THE NAME OF COMPANY]

Project	Technologies involved	# properties visited	Status of properties

Observations

Project team: [Pay attention to their interactions and relationships with BEIS, other project partners, installers and tenants. How are they organised? How knowledgeable are they about the project].

Tenants: [Pay attention to / ask about how and why participating, general views on the retrofit activity, interaction with project teams].

Partners: [Pay attention to their role on the project, the nature and size of the business, procurement (how procured and how procuring) and relationships with other team members].

Installers / labourers: [Pay attention to local workers, apprentices, people acquiring new skills].

Key takeaways

[Consider and write your thoughts on the following questions – please support with evidence from your observations].

1. How is the project progressing?

2. What is going particularly well / less well?
3. What appear to be critical success factors and barriers to progress?
4. What innovations have you seen?
5. What appear to be the main objectives and 'theory of change' of the project?

Appendix 5 – Discussion Guides (qualitative depth interviews)

Discussion guide for project leads

Section 1: Introduction and consents (5 minutes)

The aim of this section is to introduce the interview to participants and gather consents. The interviewer should:

- Introduce self and Ipsos, and
- Explain the purpose of the interview by stating the following:

“The purpose is to gather a more in-depth understanding of the project you are running as part of the SHDF(D)/ WHR programme. This interview will help us understand more about your project. We’d then like to speak to you again next year, at the end of the project to gather your reflections on it.

It is essential that the interviewer asks for consent to record the interview and reads the following text to the interviewee (an adapted version is fine):

“Thank you for agreeing to take part in this interview. As you know, BEIS has commissioned Ipsos to conduct an independent evaluation of the SHDF(D)/ WHR programmes. This interview should last about 1 hour. Your participation in this interview is voluntary and you can change your mind at any time. Ipsos abides by the Market Research Society Code of Conduct. The information that you provide will be treated in confidence by Ipsos.

Please note that:

- *Your feedback will only be used for the evaluation study.*
- *BEIS will be aware that Project Leads for local authorities participating in the schemes took part in an interview.*
- *Feedback you provide may be used in published reports reported at an aggregated level and will remain anonymous unless you agree to have quotes and feedback attributed to you/your local authority.*
- *We will share some anonymised transcripts of these interviews with BEIS for quality assurance purposes.*
- *Due to the nature of the evaluation and the number of local authorities taking part in the programme, some of the things you say may indicate your identity to BEIS or another informed reader.*

We would like to record the discussion for analysis purposes, which will be used to help us accurately collect findings for the research. The recordings will not be shared outside of the

Evaluation Team, will be securely stored and retained by us and destroyed after the completion of the evaluation. More information on this is available in the privacy policy which will have been sent to you along with your invitation. Please let us know if you need another copy. Are you happy for us to proceed?"

Section 2: Background information about the project (15 minutes)

The aim of this section is to warm the participant up to the interview and find out more information about their project team and local area factors such as the housing stock covered by the project and specific local issues relevant to retrofitting.

1. To start, please can you tell me about your role and involvement in the SHDF(D)/WHR programme?
2. [Ask to Local authorities that are delivering 1+ programme] Are you involved in any of the other SHDF(D)/WHR projects/programmes being delivered within the local authority?

[Where they are involved in other projects, please explore any comparisons when suggested across the interview].

3. We have some information on how your consortium was set up and the roles of each member from project documentation. Can you please let me know whether there have been any changes in your consortium in terms of roles and responsibilities since the proposal? Probe on:
 - a. Which roles and responsibilities have changed
 - b. When the changes took place
 - c. Reasons/context for these changes
4. We have an understanding of how your team is structured from the project and proposal documents. Has anything changed in the management structure since then? Probe on:
 - a. What the changes to the management structure were
 - b. When the changes took place
 - c. Reasons/context for these changes
5. How does the team operate e.g. format and frequency of meetings, how are decisions made?
6. Thinking about your local authority, did it already have a strategy in place for whole house retrofit before participating in SHDF(D) / WHR?
7. Are there any (other) local policies or targets which are driving your involvement in these / this programme(s)?

8. [Adapt this question to fill in gaps in information from the portfolio analysis]. Can you please give me an overview of the housing stock covered by your SHDFD/ WHR project? Probe on:
 - a. Building age and type
 - b. The tenure profile of properties i.e. does the block of houses covered include social housing and privately-owned residences - what proportions? Who are the landlords?
 - c. The scale of work needed to meet your project's thermal performance targets
9. What are the specific issues in making the housing stock in your local authority area more energy efficient, warm and comfortable? Probe on:
 - a. Issues relating to the buildings
 - b. Issues relating to the tenures of properties e.g. mixed tenures within single buildings
 - c. Geographic factors in your region
 - d. Regional weather patterns
10. How are you sourcing materials and services needed for the project? Please tell us about:
 - a. Whether you are working mainly or exclusively with a single whole house retrofit provider
 - b. The mix of specialist vs. non-specialist companies you are using
 - c. The mix of local vs national vs international companies you are using
 - d. Whether your approach to procurement / resourcing has as an objective to generate local employment or not.

[Refer to answers given in question 7 when asking the following question].

11. Thinking about the measures that you are installing in properties, which brands/manufacturers will your installers be using? [Prompt only if necessary, with the following]:
 - a. Insulation
 - b. Heat pump or ventilation and heat recovery (VandHR) system
 - c. Windows and doors
 - d. Solar Photovoltaic (PV) and energy storage system
 - e. Whole house retrofit/full building envelope system

12. What other actions are being taken with the local authority to improve the energy and thermal efficiency and comfort of properties? Probe on:
- a. Relevant national policies
 - b. Relevant local policies

Section 3: Initial engagement with the programme(s) (5 minutes)

The aim of this section is to understand how project leads heard about the programmes, willingness to engage and how they felt about applying to the programme(s).

[If relevant, please explore any differences in reasons for bidding for WHR vs. SHDF(D)].

13. How did you initially find out about the SHDFD/ WHR programme(s)? Probe on:
- a. Formal engagement activities with BEIS e.g. workshops on innovative approaches to whole house approaches to retrofitting social housing
 - b. Promotion and marketing material from BEIS.
14. [If not yet covered] What motivated you to apply to the programme(s)? Probe on:
- a. Prioritisation from within your local authority
 - b. Other local authorities applying to the programme(s)
15. Did anything about the programme(s) make you hesitate about applying?
- a. How did you overcome any initial concerns about applying?
16. How did you find the application process? Probe on:
- a. Who was responsible for completing it
 - b. Any external help or advice e.g. from a consultancy or the Energy Saving Trust
 - c. The usefulness of any external help
 - d. Any changes that would improve the application process

Section 4: Project design (5 minutes)

The aim of this section is to understand how project leads designed their projects according to the requirements of the programme(s), building partnerships, the housing stock they planned to cover and building in innovative methods and products.

17. Has the design and requirements of the SHDFD/ WHR programmes influenced the design of your project at all? Probe on:
- a. Overall project approach
 - b. How your project team was structured

- c. The housing stock included in the project
 - d. Engagement with suppliers
18. How did you build partnerships with other organisations for your project? Probe on:
- a. Partnerships with installers, manufacturers and suppliers
 - b. Were these new or existing?
 - c. What types and size of organisations are involved?
 - d. What mechanisms did you use to form/develop these partnerships? E.g. open tender, call-off contracts?
19. Through what processes did you select housing stock for this project? Please tell us more about the selection criteria, the decision-making steps, and challenges and barriers faced which influenced selection, and whether the selection changed over time.
20. Without participating in these programmes, would you be implementing whole house retrofits of housing stock? If so, what means would you use?

Section 5: Views on programme delivery (5 minutes)

In this section we will ask participants how they felt about applying to the programme(s) and support and advice from BEIS/ their delivery partner (Ricardo).

21. Thinking back to when you applied to the programme(s), what are your views on the competition and selection process? Probe on:
- a. Pre-competition publicity and the timeliness of announcements
 - b. Information on the competition and application process
 - c. Time allowed for the application and time taken to award the funding
 - d. Any feedback from BEIS/ their delivery partner on the bid
22. What are your views on BEIS/ the programme delivery partner's management of the programme(s)? Probe on:
- a. Ongoing advice and feedback
 - b. Any additional support
 - c. Reporting and monitoring requirements
 - d. Funding terms and conditions (including payment milestones)
23. Are there any improvements that could be made?

Section 6: Project delivery (5 minutes)

In this section we will cover project leads' experiences of implementing their projects in practice, including what has gone well and what has been more challenging and to what extent they are on track to deliver the project on time.

Moderator: if relevant, please explore any views on different timelines for planning/ delivery across SHDF(D) and WHR (WHR projects have had 6 months or longer for planning/ delivery compared to SHDF(D)).

24. How do you think project delivery has gone so far? Probe on:
 - a. What have been the biggest successes in delivery to date?
 - b. What have been the greatest challenges?
25. We have some information about the timelines you are working to from your project documentation. Can you please tell us if these have since changed at all? Probe on:
 - a. Key milestones and targets
 - b. Who was involved in deciding the timelines
26. What do you think are the reasons for these successes and challenges? Probe on:
 - a. Factors within their control
 - b. Wider contextual factors
 - c. Anything they have done to foster success and address challenges

Section 7: Project detail (15 minutes)

In this section we will asking participants more detailed questions about what their projects will deliver.

So far we've discussed various aspects of the design and delivery of your project. I'd like to pick up on a few points in more detail...

27. What is your approach to delivery at scale? Are properties being delivered in stages?
 - a. Why is this approach being taken?
 - b. What has influenced this?
28. We have some information about the measures you are planning to install in properties from your project documentation. Have there been any changes to this? Probe on:
 - a. If any changes, who made them
 - b. Why any changes have been made

- c. To what extent this varies across the housing stock
29. Have any changes been made to your approach to ensuring quality of the installations in properties since your proposal?
30. How have you found it to engage tenants with the project? Probe on:
31. Initial engagement
- a. Engagement in the run up to installation
 - b. Engagement during installation
 - c. Format of the engagement e.g. single point of contact from the installer/ project team, advice line, drop in clinic
 - d. Types of questions and concerns tenants have raised
32. What innovations have you introduced into your project and what results were you expecting to achieve through this? Probe on:
- a. Expected results (time-saving, sustainability, warmth/comfort?)
 - b. Origin of idea/design (past projects, networks, partnerships, the programme itself?)
33. Have any changes been made to the cost reduction approaches being employed by the project since the proposal? Probe on:
- a. Extent to which these are on track?
 - b. Guidance and support from BEIS/ their delivery partner regarding cost reduction.
34. To what extent has the project supported the creation of new skills or capabilities across those working on the project? Probe on:
- a. What are these skills/ capabilities?
 - b. How many, if any, full time equivalent roles need to be created to help deliver the project?
 - c. To what extent are these sustainable/ transferrable?
35. [Refer back to question 23 and pick up on anything not already covered in that answer]. Thinking about project overall, to what extent do you feel you are on track to deliver your project objectives? Probe on:
- a. Future successes on the horizon
 - b. Future challenges on the horizon
 - c. Capacity to meet these challenges

Section 8: Overall views and wrap-up (5 minutes)

In this section we will gather overall views towards the project to date and wrap up the discussion.

36. And is there anything further you'd like to add, based on what we've talked about today?

Thank you for taking the time to speak to me today about your project. We will be using these interviews to inform an interim report for BEIS, to be submitted in September 2021. This report will be published.

37. Are you willing for us to include the name of your local authority alongside quotes from you in the report or prefer to keep it anonymous?

38. Are you willing for us to include your name and job role alongside quotes from you in the report or prefer to keep it anonymous?

The evaluation that we are carrying out on behalf of BEIS continues until after the projects complete. We would like to speak to you again next year (in 2022) and speak to you about how the project went.

Please can I check that you'd be happy for Ipsos to retain your contact details for 18 months and re-contact you about this during this time.

Discussion Guide - Ricardo

Section 1: Role in policy design and delivery

1. Could you please briefly describe your role within the delivery of the SHDF/ WHR programme? How has this role changed over time?
2. Specifically, could you please provide me with information on the role you played (if any) in the following activities:
 - a. The initial bid for Ricardo to act as Delivery Partner for WHR and/or SHDF(D).
 - b. Designing and/or adapting the design of the support that Ricardo provide to BEIS in delivering WHR and/or SHDF(D).
 - c. Making decisions that affects the delivery of WHR and/or SHDF(D) (and – if so – what those decision are).

Section 2: Key processes

Please answer the following questions, as best as possible, given the time elapsed. Your answers will help provide context to us understanding current WHR and SHDF(D) delivery.

Bidding process

3. Thinking about Ricardo's original bid to help deliver WHR, how long were you given to bid, what aspects of your design do you consider made Ricardo successful, and what was your experience of the bidding and selection process?
4. Thinking about Ricardo's original bid to help deliver SHDF(D), how did this process differ (if at all) from the WHR process, and to what extent did you / did you not carry through learning and experience from the WHR bid and project into SHDF(D) bid?
5. What learning did you bring through from delivering WHR and SHDF(D) and how have you adapted your service offer, if at all?

Differences between WHR and SHDF(D)

6. What, in your experience, have been the main differences between delivering the two schemes and what factors do you think drive / explain these differences?

Delivery Partner team structure / governance

7. How do you organise yourselves internally? Have you had to adjust staffing to meet demands?
8. How do you coordinate and share lessons internally?
9. Has there been any difference between how you have organised the teams delivering WHR and SHDF(D)? If so, why?

Day to day activities

10. What are the principal day-to-day activities of the Delivery Partner?
11. How, if at all, have these changed over the duration of the contract?

Section 3: Further information on processes

[Explain to interviewee: “In the inception phase of the evaluation we spoke to representatives of Ricardo and BEIS about the design and launch process. They provided details on their experience of the design and launch process. The questions below are to see whether there is anything you would like to add.”]

12. We understand that the scheme was also advertised through BEIS and Ricardo networks – can you tell us a bit more about this? Again, what worked well or less well about this publicity run? Is there anything you would do differently (or have done differently) in future / follow-on programmes?
13. Please provide your views on the application process – what went well and less well regarding this process?
14. Were you happy with the overall quality of bids? Were any projects selected which you were unsure about? What actions were taken, if any, to provide further support to or additional monitoring of these projects?

Section 4: Monitoring

[For information: project-level monitoring comprises:

For SHDF(D) projects, a monthly progress report is provided to BEIS by the local authority team. This report details the progress in terms of tasks accomplished in the previous month, progress against agreed milestones, assessment of risks to project delivery, lessons learnt and a financial overview.

Further to this, a group of seven MOs from the Delivery Partner (Ricardo) engage in monthly site visits for each project. This provides a monthly site visit report conducted by the MO, which provides greater in-depth insights into progress of milestone evidence in addition to supporting evidence (such as images of archetype selection or detailed design drawings). The monthly site visit reports also provide a review of both the project plan and project spend and financial processes, in addition to a list of actions for the next reporting period.

For the three WHR projects of London Borough of Sutton, Nottingham and Cornwall, monthly reporting was submitted to BEIS in which progress against work packages and milestones were detailed, including the challenges experienced by the project team and identification of risk areas. This was further compiled into a monthly lessons learnt log.]

15. In your view, what works well / less well about the programme’s monitoring systems?
16. At the project level, what oversight, if any, do Ricardo and/or BEIS have of how accurately or well the following are being implemented?

- a. Where these concerns fall fully to other authorities (e.g. at local level or elsewhere in central government), to what extent are the potential timelines and challenges associated with such compliance taken into account in Ricardo and BEIS' oversight of the projects?
 - i. PAS requirements.
 - ii. Building regulations.
 - iii. Planning compliance.
17. In relation to project monitoring and reporting, what direct or practical support do Ricardo and BEIS offer (if any) to projects experiencing problems with:
 - a. project timeline delays,
 - b. tenant engagement challenges,
 - c. procurement challenges / legal contracting issues,
 - d. supply chain issues,
 - e. other delivery challenges.

Section 5: Scheme Delivery to Date

18. Has the programme been delivered to your initial expectations? What, in your view, has worked well / less well?
19. What have been the main drivers to some projects progressing more-or-less as planned and others not? What have been the success factors and main barriers?
20. What is your view on how (well) projects are implementing PAS 2035? Please give your views on the interaction of the scheme with the standard?
21. What has been the value and any challenges of having:
 - a. The WHR and SHDF(D) programmes running in parallel?
 - b. The two programmes running in parallel to the SHDF Main Fund?

Section 6: Governance

22. Have you been happy with the level of communications and engagement between BEIS, Ricardo and project teams throughout the programme?
23. Have you been happy with governance arrangements and board reporting through the programmes?

Section 7: Lessons Learnt

24. [If not already covered above] How and to what extent have learnings from the programmes been feeding into the programme's Main Fund – particularly the work of the TAF?
25. To what extent have perceptions, motivations and approaches taken as part of the study changed due to the changes seen in the energy market?
26. Has there been any progress on developing the 'Book of Knowledge'?

Section 8: Ipsos draft process map

[Ipsos to share the process evaluation map – IPSOS TO SHARE WITH INTERVIEWER SEPARATELY – with the interviewee, in advance of the interview – for ease of reference is also copied below].

27. Do you recognise all of the processes in the map? Are there any that look unfamiliar or in the incorrect place chronologically?
28. Have the correct 'owners' been assigned to each process? (Please review the map's key and colour coding.)
29. Are there any of these processes that have been particularly challenging over the course of the delivery?

Section 9: Our evaluation

[Info to the interviewee: As next steps, we will be writing up a summary note to support the PIR, completing the PAS 2035 deep-dive and process evaluation

. Over the next few months, we will visit all sites on completion of works and evaluate actual building and tenant outcomes through data analysis and tenant fieldwork to report the actual benefits of the programme next year.

30. Is there anything about our evaluation that you would like to comment on?

Section 10: Interview close

31. Is there anything else about the SHDF(D)/ WHR programmes that you would like to comment on that we have not discussed?

Discussion guide – Resident Liaison Officer (RLO)

Section 1: Background information about the project (5 minutes)

The aim of this section is to find out more information about their role and local area factors such as the housing stock covered by the project and specific local issues relevant to retrofitting.

1. To start, please can you tell me about your role and involvement in the SHDF(D)/WHR programme? Probe on:
 - a. Overview of responsibilities
2. How have you been integrated (if at all) into this project – e.g. do you have a specific role on the project, or does it fall into your day-to-day activities?
3. How did you get your job as a tenant/resident liaison officer? Probe on:
 - a. What was the process? Did they apply and was there an interview? If so by who?
 - b. What was their previous experience?
4. Can I confirm the approximate numbers for the following:
 - a. Householders engaged with the project to any degree
 - b. Householders that progressed to surveying homes for retrofit assessment
 - c. Householders that are progressing works through the project
 - d. Householders that dropped out for reasons out of their control

Section 2: Overall approach to tenant engagement and RLO's role (10 minutes)

[The interviewer should first read the results of the portfolio analysis about roles and consortia arrangements on the tenant journey and focus the questions in this section on: (i) filling gaps, (ii) confirming our understanding, and/or (iii) exploring the findings of the portfolio analysis in more detail. If we already have sufficient information in the portfolio analysis, please do not ask for information unnecessarily].

5. Who within the project (in addition to you) interacts with – i.e. has contact or engagement with – tenants?
6. How much resource is dedicated to tenant engagement for your project? Probe on:
 - a. What this resource is as Full Time Equivalent resource.
 - b. Whether this is sufficient to deliver the project
7. How do these align with any overall tenant engagement policies of the LA / housing authority?

8. What role, if any, have you and fellow RLOs played in monitoring the project? Probe on:
 - a. Whether a dedicated feedback mechanism has been set-up, or whether feedback goes through existing / 'normal' feedback channels in the local authority / housing authority. If through the 'normal' channels, how (if at all) the feedback is marked as specific to this project.
9. If applicable, how is feedback from tenants about the project provided to BEIS?
10. What have been your experiences (vs. your expectations and those of tenants) in liaising with tenants? Probe on stages during:
 - a. The process of consultation before works
 - b. Tenant's agreeing for retrofit assessments to progress
 - c. The installation experience / customer management throughout
 - d. QA and aftercare [if relevant]
 - e. Customer drop-out during the process - did the interviewee find any effective methods for addressing / minimising this drop-out?

Section 3: The tenant journey (15 minutes)

[The interviewer should first read the results of the documentation review 'tenant journey' worksheet and focus the questions in this section on: (i) filling gaps, (ii) confirming our understanding, and/or (iii) exploring the findings of the portfolio analysis in more detail. If we already have sufficient information in the portfolio analysis, please do not ask for information unnecessarily].

[Note, before moving to Q13, describe your understanding of the tenant journey from the documentation review]:

11. Does this description of the tenant journey sound right? What have been the typical lengths of time for each of the different stages of the customer journey? Probe on:
 - a. Community consultation (whether with groups, individuals, by post, media or in person)
 - b. Home assessment / visit to signing up for measures
 - c. Agreement of works
 - d. Installation
 - e. Handover
12. Have average timings improved as the process has become more established? Please provide more information.

13. How do the timescales compare to expectations (and if not as expected, what are the implications of this for the project?)
14. How were tenants first consulted about the project? Probe on:
 - a. At what stage the project was at overall
 - b. Format of communication e.g. letter, email, phone; what materials were given to them
 - c. What they were told
 - d. What the main concerns were
 - e. Whether this included or went beyond the legal consultation process
15. What were tenants' initial reactions when they were first consulted about the project. Probe on:
 - a. The range of reactions among tenants.
 - b. Anything about the project that needed to be clarified.
16. How responsive were tenants to engaging with the project at this initial stage?
17. At what stage are tenants able to opt-in or out? Probe on:
 - a. If tenants did opt-out, what were the reasons for this?

Pre-installation visits

18. What visits to tenants' properties, if any, were carried out before the installation work began? Probe on:
 - a. How many visits were carried out in your project?
 - b. The impact, if any, of restrictions due to COVID-19.
 - c. Were tenants required to give access to the property?
 - d. How involved were they in any inspections, information gathering etc.?
19. Who was involved in the visits? Probe on:
 - a. Any project partners? Colleagues from the council, housing provider etc.
20. What tenant engagement happened before installation work began? Probe on:
 - a. Did this include physical visits. If so, how many? What did they involve?
 - b. The impact, if any, of restrictions due to COVID-19.
 - c. How involved were they in any inspections, information gathering etc.?

Installation

[The aim of this section is to understand how the installation process played out in practice and how tenants experienced it, from the perspective of the RLO. This section focuses on what the barriers and facilitators are for supporting tenants through the installation process and any lessons learned].

21. How did you engage with tenants while the installation work was taking place? Probe on:
 - a. What was your role? Who else was involved?
22. [If not already covered in Section 2:] How was feedback from tenants shared with others on the project e.g. the Project Lead, installers?
23. How did you mitigate tenant disruption while installations were taking place? Probe on:
 - a. How tenants who were asked to vacate their property
 - b. How tenants who remained in their homes were supported.
 - c. The impact, if any, of restrictions due to COVID-19.
24. Were any installation measures more disruptive than others? Why?
25. Any changes in approach from RLOs to respond to disruptions.
26. How did tenants interact with the installation team? Probe on:
 - a. Were there any points in the installation work that created issues between tenants and installers?
 - b. How satisfied were tenants with how installers interacted with them during the installation period?
 - c. Did the installers have any feedback on how they interacted with tenants?

After the installation work

27. This section aims to understand how the project delivery team and RLOs engaged with residents after the installation period. Many RLO's may be unlikely to address these questions at this delivery stage.
28. What information, if any, were tenants provided with once the installation work was complete? Probe on:
 - a. Who provided the information?
 - b. What was the information about e.g., user guides for appliances, advice on how to save energy?

- c. What format was information shared in? Leaflets, information sessions, house visits?
 - d. Was there anything that tenants asked about that you or others on the project couldn't provide information about? If so, what did you do to address this?
29. Were there any property visits, monitoring or engagement activities after the installation work was complete? Probe on:
- a. What was the purpose of these activities? Did tenants know these were happening?
 - b. Who was involved?
 - c. How were they conducted e.g., as a survey, a tenant event, temperature sensors in the house etc.?
 - d. What views, if any, did tenants have about these activities?

Section 4: Overall views (15 minutes)

[In this section we will gather overall views towards the project to date and wrap up the discussion].

30. Which stages of the engagement process was most challenging for you and the wider project team? Probe on:
- a. What steps you, or others on the project team, took to address these challenges.
 - b. How successful were these steps?
 - c. What stage of the installation process was least challenging for you and the wider project team?
31. What have been the most successful ways of (a) getting householders to engage with the project and progress to action? Which methods were perhaps less effective?
32. What's been tenants' feedback on the process as its developed? Is there anything we should bear in mind for our research with them?
33. What lessons do you take away from all this, and what do you think are the main implications of these for the future viability of retrofitting social housing?
34. What lessons, if any, have you learned about supporting tenants during installation work for a project like this? Probe on:
- a. What could be improved for:
 - i. Tenants?
 - ii. Project delivery teams?

35. And is there anything further you'd like to add, based on what we've talked about today?

Section 6: Next steps (5 minutes)

We want to run by you the next steps for evaluation and our planned interactions with tenants. After completing interviews with project teams, BEIS and Ipsos are contacting tenants about their experiences of the installation process. [EXCLUDES RKBC and WARWICK].

We are speaking to a sample of tenants who agree to 1-1 interviews.

We would like to survey tenants after works are completed to hear about their experience of the installation, handover, and the impact of the project on their energy bills, comfort and wellbeing.

Separate to the evaluation, BEIS are also meeting a few tenants directly on physical site visits.

36. Do you have any advice on how best to engage with the tenants in your area?

37. What's the best time and communication method to contact tenants to take part in the evaluation?

38. Are there any factors relating to your area that we should take into consideration, e.g. languages spoken?

39. Is there anyone we should speak to before contacting tenants about taking part in the research?

Section 7: Wrap-up/Handling information (5 minutes)

We will be using these interviews to inform our findings for a report for BEIS. This report will be published.

40. Are you willing for us to include any information alongside quotes, such as your name, role, region, or local authority, to provide the reader some extra context?

Separate from the evaluation, BEIS would like to get good news stories to promote the work being done on the demonstrator as well as to share the lessons learned on a particular challenge that the project has faced. If interested in sharing your experiences more widely, BEIS can email you a media release form to confirm this with you. [PLEASE NOTE MEDIA CONSENT]

The evaluation that we are carrying out on behalf of BEIS continues until after the projects complete. We may wish to speak to you again next year (in 2023) and speak to you about how the project went.

Please can I check that you'd be happy for Ipsos to retain your contact details for 12 months and re-contact you about this during this time? [NOTE CONSENT FOR RECONTACT]

Discussion Guide – PAS 2035 Research

[Read to interviewee]:

“Hi, my name is [NAME]. Thank you for agreeing to take part in our research.

We have been commissioned by UK Government’s Department for Business, Energy and Industrial Strategy (BEIS) to carry out an evaluation of the Social Housing Decarbonisation Fund and Whole House Retrofit Schemes. As part of the evaluation we are investigating the implementation of PAS 2035. This evaluation will help BEIS understand your view on the standard and inform future developments. Research findings will inform reviews of PAS 2035 and relevant BSI standards, as well as policy design and guidance in relation to PAS2025 compliance.

The interview will last approximately 45 minutes. Your participation in this interview is voluntary and you can change your mind and terminate the interview at any time. The information that you provide will be treated in confidence:

Only Energy Saving Trust, Ipsos and BEIS will be able to identify you. Your business and/ or project may be referenced to help informed audiences at these organisations contextualise findings. However, your contribution will be acknowledged in publications only using a generic profession or job role (e.g. “Retrofit Coordinator”, “Retrofit Assessor” or “PAS 2035 Expert“).

BEIS expect to publish aggregate results from the interview, which will not be attributed to you as an individual.

There is certain information you need to know as a legal requirement as a result of Data Protection laws. This information is contained within the Consent and Data Protection Form we sent along with the invitation to interview. Are you happy to proceed with the interview, as per this Privacy Notice?

Questions are aimed at PAS 2035 implementation contacts including retrofit coordinators, assessors, designers, and those with significant experience of PAS 2035.

Our discussion will cover experience and effects of PAS 2035, PAS 2035-related challenges and implementation costs.

I would like to record the discussion for analysis purposes to help us accurately collect findings for the research. The recording and auto-generated transcript will be securely stored in a password protected folder and retained by us and destroyed after the completion of the evaluation. Are you happy for me to record the interview?”

NB. for interviewer – start recording and ensure to ask for consent and get agreement on the recording.

Section 1 – Experience of PAS 2035 (10 mins.)

1. Please can you confirm your name and organisation.

2. What interaction have you had with PAS 2035 to date? This might include being consulted as part of the design process, being an advocate for PAS, being a user of PAS, commentating on / writing about PAS, etc.
3. If any, what PAS roles have you held in domestic retrofit projects?
 - a. Prompt/ clarification: Where the standard permits, the same person may have [had] two or more PAS roles.
 - b. If relevant:
 - i. How many PAS projects have you worked on (roughly)?
 - ii. Were these delivered through Government programme funding or regulatory requirements (e.g. SHDFD, ECO, Vouchers)?
4. If government schemes did not mandate PAS compliance, would you have chosen to comply with it?
5. If not required by Government programme funding or regulation, what prompted you to use PAS 2035?

Please tell us about the range of project complexity/ risk pathways A, B and C utilised in these projects.

6. What training and qualifications do you have/ are you undertaking to become a retrofit coordinator/ assessor/ designer/ advisor/ evaluator? Probe:
 - a. when did you attend this;
 - b. what are your views on it;
 - c. what is the cost and who pays?
7. Broadly speaking, what is your overall experience of and view of PAS? Prompt: Overall positive / negative / neutral?
8. Do you believe that PAS 2035 is fulfilling its purpose?
 - a. Prompt/ clarification: PAS 2035 was developed in response to a key recommendation of the Each Home Counts review, an independent review of consumer advice, protection and standards, which called for a technical code of practice and standards to ensure that the risk of poor quality insulations was minimised and consumers were protected.

Section 2 – Effects of PAS 2035 (10 mins.)

We will now discuss the effects of PAS 2035 on the retrofit process, quality, those delivering it, and occupants.

9. Has PAS 2035 contributed to raising the overall quality of the retrofit projects you are/ have been involved with? (Please explain)

- a. Prompt: Has PAS 2035 delivered the level of quality you were expecting it would?
 - b. Prompt for variations in quality attributed to [more] challenging measures/energy efficiency installations
10. How would you compare the quality of retrofit projects that have used PAS 2035 with projects that have not? Probe on:
- a. Guidelines followed,
 - b. Processes,
 - c. Monitoring,
 - d. Checks/audits
11. What are the benefits of PAS (if any) for:
- a. installers,
 - b. architects and others involved in the design and delivery (outside of installers),
 - c. manufacturers,
 - d. other upstream supply chain including certification bodies, trainers, MandE specialists,
 - e. for housing providers,
 - f. for Government / BEIS, (vii) for occupants?
12. What are the disbenefits/ costs of PAS (if any) for each of the above-listed stakeholders?
13. What are the effects of PAS by tenure/ housing sector? Probe on:
- a. PAS 2035 implementation in different settings

Section 3 – PAS 2035-related challenges (15 mins.)

We are now going to discuss some aspects of PAS that have been flagged by others as challenges. We would like to hear your views.

14. In your experience, does PAS 2035 implementation in practice differ in any material way from what the standard calls for in theory. If yes, can you provide examples of this?
15. How has PAS 2035 impacted the occupant experience of domestic retrofit projects?
 - a. Prompt on experience at different stages of the customer journey:
 - i. Initial engagement

- ii. Pre-works communication
 - iii. Pre-works visits
 - iv. Installation
 - v. Handover
 - vi. In-use
- b. Prompt if/ how might the experience be [further] improved?
16. Are there any PAS-related activities that are particularly disruptive and, for example, require multiple property visits/ visitors under PAS 2035? If so, does this pose challenges for PAS 2035 implementation?
17. Are there certain processes mandated by PAS 2035 that involve the collection and storage of personally sensitive data? If so, does this pose challenges for PAS 2035 implementation?
18. How well or less well does the Trustmark Data Warehouse work as a data management system for PAS compliance?
19. Have there been any unintended consequences (whether negative or positive) of PAS 2035 implementation? These could entail processes, results or anything else throughout the retrofit process.

Section 4 – Costs of implementing PAS 2035 (15 mins.)

20. For each of the following elements, what is the typical cost of implementing PAS compared to a good quality project that does not implement PAS 2035?
- a. Assessments (e.g. risk assessments, dwelling assessments)
 - b. Improvement option evaluation (IOE) and medium-term improvement plan (MTIP)
 - c. Advice
 - d. Design
 - e. Additional installation costs (whether this is for any measures)
 - f. Monitoring and evaluation/ post-occupancy evaluation (e.g. questionnaire, home inspection)
 - g. Administration*
 - h. Lodgement fees*
 - i. Contingency pot* – what is this typically spent on?
 - j. Other additional cost elements not covered above

For each of the above-mentioned costs:

- i. Do you think this activity is necessary for any good quality retrofit regardless of PAS? In your experience, is this implemented in retrofits outside PAS? If so, how common is it and is there a difference in cost?
 - ii. Prompt on hourly rates an estimate of hours, especially for those marked with *
 - iii. Prompt on coordinator/ assessor vs. experience/efficiency gains and breakdown of retrofit plan elements.
 - iv. If possible, gather the figures for multiple building types e.g. detached/semi-detached houses vs multi-occupancy buildings and other building types if possible.
21. Are there any additional challenges brought about by compliance with PAS 2035 which could be improved, avoided or reduced? [Clarification: These are actions or areas where reducing cost is both practical and does not compromise the implementation of PAS 2035. Costs can relate to any element of PAS and the retrofit, whether concerning the installation or anything before or after installation. Suggestions can also include costs related to work carried out by others, including installers, PAS roles, or other stakeholders.]
- a. Prompt examples (only if necessary): reducing administrative load or making a process more efficient
22. Are there any PAS 2035 implementation issues which we have not discussed that you would like to comment on?
23. Other than what we have already discussed, do you have any other comments on any PAS 2035 implementation challenges and how the standard could be improved?

Section 5: Wrap-up

[Read to interviewee]:

Thank you for your time.

The information you have provided will directly feed to the Supply Chain team in BEIS who meet with Trustmark on a weekly basis, sponsor and publish the PAS Industry Guides, and work with the industry on standards, quality and consumer protection related issues.

Discussion Guide – WHR Expert Interview

Section 1: Definition of WHR

1. What is the current definition, or your understanding, of whole house retrofit as a concept?
2. Are there mechanisms that deliver home energy retrofits that are more likely to take a whole house approach?
3. Is there more than one level of WHR? (e.g. 'good enough', 'best practice' etc.)
If yes:
 - a. Do certain approaches to WHR tend to fall within different levels, or at different ends of the spectrum?
 - b. How do these levels impact on:
 - i. Comfort
 - ii. Energy performance
 - iii. Moisture risk
 - iv. Cost of retrofit
4. Can you suggest any key documents, theories or organisations that have helped to define WHR?

Section 2: Definition of the WHR Market

5. Which companies and organisations do you most associate with WHR in the UK / elsewhere?
6. What kinds of providers / industries deliver WHR in the UK / elsewhere? Who are the industry leaders?
7. If we were to segment the WHR supply chain as follows, can you estimate what proportion of the market each segment supplies?
 - a. WHR-dedicated companies;
 - b. Broader installation companies with WHR as a service offering (amongst others);
 - c. Companies offering all elements of retrofit, but without specifically offering WHR as a service.
8. Similarly, if we were to segment the supply chain in this way, can you estimate proportions of:
 - a. Companies providing whole house solutions in-house;

- b. Lead companies who subcontract specialists;
 - c. Partnerships between specialist organisations working together to provide the whole house offering.
9. Do you think there is a better or more meaningful way to segment WHR supply?
10. What is the motivation behind companies offering WHR? Probe: e.g. a greener solution, a cheaper solution, reducing risk of unintended consequences...
11. What is the approx. size / value of the market?
12. Who is driving demand for / commissioning the WHR approach? Probe:
- a. How does demand compare between private households, private landlords and social housing, between rural and urban, and between income bands?
13. Where is the WHR most active geographically in the UK? Are there hotspots?
14. How does the UK WHR market compare to other countries?

Section 3: Evolution and Innovation of the WHR Market

15. How has WHR in the UK evolved over the last 10+ years:
16. Which types of houses and customers have been involved historically?
17. How have concepts / thinking evolved? Probe: has it grown from e.g. Passivhaus or other backgrounds?
18. What, if anything, has prevented or restricted the market from evolving?
19. Can you tell me about some of the most innovative techniques or approaches in delivering WHR?

Section 4: Future of the WHR Market

20. Can you provide an estimate of the size of the future market in 10 years? 20 years? What are the assumptions behind these estimates?
21. What industry developments are expected in the coming decade?
22. What role do you think current Government policy has or will have in the future on WHR?
23. Do you think new legislation or industry standards should be introduced to influence the future of WHR?

Section 5: Wrap-up

24. Do you have any other comments on whole house retrofit in the UK, or on the Social Housing Decarbonisation Fund or Whole House Retrofit programmes?

Energy Saving Trust and BEIS may wish to carry out further research amongst participants of this study. Would you be willing for Energy Saving Trust to retain your contact details in order to invite you to take part in further research on behalf of BEIS on this topic in the next 18 months? You do not have to say now whether you would actually take part in the research, just whether you would be happy to be contacted about it.

Discussion Guide – Non-Participating Local Authorities

Section 1: Participant introduction (5-10 minutes)

The aim of this section is to understand the background of the participant and the social housing provider's current whole house retrofitting activities.

1. To start with please can you tell me a little about your role at [social housing provider]. Ask also about length of time in role.
2. What, if any, are the specific issues in making the housing stock in your area more energy efficient, warm and comfortable? Probe on:
 - a. Issues relating to the buildings
 - b. Issues relating to the tenures of homes e.g. mixed tenures within single buildings
 - c. Geographic factors in your region
 - d. Regional weather patterns

[Read to interviewee: I'm interested to understand your awareness and, where relevant, experiences of the SHDF(D) and/ or WHR programme(s). However, first it would be great to understand a little more about what is happening within your organisation regarding improving the energy efficiency of homes and whole house retrofitting].

3. What, if any, activities related to improving energy efficiency of homes or whole house retrofitting are you aware of in your area?
4. Are you currently carrying out any projects to retrofit housing: (a) using whole house approaches; (b) using other approaches?

If yes:

- a. What projects, what type of homes/ housing stock?
- b. How have these been funded?
- c. Which organisations or companies are you working with to deliver these?

If no:

- d. To what extent is this something that is planned for homes in your LA?
- e. What has prevented you from looking at doing this so far? Probe on:
 - i. Apprehensions about retrofitting
 - ii. Whether or not it is currently a priority i.e. due to impact of COVID-19
 - iii. Which of these is a bigger barrier.

- f. What other actions are being taken with your organisation to improve the energy and thermal efficiency and comfort of homes? Probe on:
 - i. Relevant national policies
 - ii. Relevant local policies

Section 3: Programme awareness (5-10 minutes)

The aim of this section is to understand how the social housing provider became aware of the programme and views regarding promotional materials.

5. How did you initially find out about the SHDF(D) and/or WHR programme(s)?
6. Where did you come across any information? Prompt:
 - a. Formal engagement activities with BEIS e.g. workshops on innovative approaches to whole house approaches to retrofitting social housing
 - b. Promotion and marketing material from BEIS.
7. What did the information include?
8. How helpful was this information? To what extent did it provide all of the information you needed? What, if anything was missing?
9. How could this initial information about the programme(s) have been improved?
10. Did you attend any events regarding the programme(s)?

If yes:

- a. How useful was/were the event(s)?
- b. What worked well/ was useful?
- c. What, if anything, could have been improved?

Section 4: Deciding to bid (10-15 minutes)

The aim of this section is to understand how the social housing provider decided to bid including identification of key motivations and barriers to bidding.

11. How did you go about deciding whether to submit a bid to the programme(s)?
12. Who was involved in making the decision?
13. Which aspects, if any, of the programme(s) encouraged you to consider submitting a bid?
14. Which aspects, if any, of the programme(s) put you off submitting a bid?

[Note: when exploring motivations and barriers to submitting a bid please prompt on:]

- a. Eligibility criteria
- b. The bidding process e.g. timings for bidding
- c. Timings for delivery
- d. Required knowledge/ skills within the local authority
- e. Project design requirements and targets
- f. Fit with housing stock in your area (social housing vs. non-social housing)
- g. Relationships with/ availability of potential partners/ other organisations e.g. installers
- h. Prioritisation from within the social housing provider
- i. Other social housing providers applying to the programme(s)
- j. Anything else?

Section 5: Bidding experience (15 minutes) [ASK ONLY TO THOSE LOCAL AUTHORITIES WHO SUBMITTED A BID:]

The aim of this section is to explore views regarding the application process, how projects included in bids were designed, and views on the selection process.

[Note: use these questions to fill in any gaps in information in the project documents provided by BEIS].

15. How did you find the application process?
16. Who was responsible for completing it?
17. Any external help or advice e.g. from a consultancy or the Energy Saving Trust?
18. The usefulness of any external help?
19. Any changes that would improve the application process?
20. How did you design the project for your bid?
21. Who was involved?
22. What challenges did you face in the design? How did you overcome these?
23. How easy or difficult was it to design the project around the requirements of the SHDF(D) and/ or WHR programme(s)? Why?
24. How did you build partnerships with organisations for the project included in your bid?
 - a. Were these new or existing?

- b. What types and size of organisations are involved?
 - c. What mechanisms did you use to form/develop these partnerships? E.g. open tender, call-off contracts?
25. How did you decide which type of housing stock the project would focus on? Please tell us more about the selection criteria, the decision-making steps, and challenges and barriers faced which influenced selection, and whether the selection changed over time.
26. What innovations did your bid include?
- a. To what extent were these innovations you had already thought about using within you LA?
 - b. To what extent would these innovations improve on what was/ is already happening within your LA?
 - c. Are these innovations you will be able to put in place on other projects or not? Why/ Why not?
 - d. Are these innovations that you are aware have been used elsewhere? If yes: where?
27. What cost reduction methods did your bid include?
- a. To what extent are these methods that you had already thought about using within your LA?
 - b. To what extent would these methods improve on what was/ is already happening within your LA?
 - c. Are these methods that you will be able to put in place on other projects or not? Why/ why not?
 - d. Are these methods that you are aware have been used elsewhere? If yes: where?
28. And what are your views on the competition and selection process?
- a. Pre-competition publicity and timeliness of announcements
 - b. Information on the competition and application process
 - c. Time allowed for the application and time taken to award the funding
 - d. Any feedback from BEIS/ their delivery partner (Ricardo) on the bid
29. How did you feel about your bid not being successful?
30. What do you consider to be the main reasons why you were not successful?

Section 6: Summary and wrap-up (5 minutes) [ASK ALL]

The aim of this section is to gather overall views regarding future participation in similar programmes and to close the interview and thank participants for their time.

31. Overall, thinking about the work already being carried out in your organisation regarding the energy efficiency of homes and whole house retrofitting, how would the SHDF(D) and/ or WHR programme(s) have fitted in or complemented this work?
32. [ASK THOSE WHO SUBMITTED A BID]: are you planning to implement any of the activities included in your bid despite not being successful?

If yes

- a. how is this being funded?
33. How would you feel about bidding for similar programmes in the future?
34. What if anything could be done differently to support social housing providers in bidding for these programme(s)?
35. Is there anything else you'd like to add about the SHDF(D) and/ or WHR programme(s) that we have not already covered?

Discussion Guide – BEIS

Section 1: Role in policy design and delivery

[Note for interviewer: this question allows to understand the specific role of the interviewee in the policy design and delivery].

1. Could you please briefly describe your current role at BEIS and your specific involvement in the design and delivery of the SHDF/ WHR programme?
 - a. Has your involvement in the programme changed over time?

The following discussion will cover a range of topics relating to the programme and / or intervention(s) and the evaluation, including [read out list below]. Are there any areas that you do not feel able to comment on?

- The design of the programme including the overall aims of the programme and anticipated impacts of the programme.
- The delivery, management and governance of the programme including how delivery is currently progressing, and any learnings based on delivery to date.

Section 2: Ipsos draft process map

[Ipsos to share the process evaluation map – IPSOS TO SHARE WITH INTERVIEWER SEPARATELY – with the interviewee, in advance of the interview – for ease of reference is also copied below].

2. Do you recognise all of the processes in the map? Are there any that look unfamiliar or in the incorrect place chronologically?
3. Have the correct 'owners' been assigned to each process? (Please review the map's key and colour coding.)
4. Are there any of these processes that have been particularly challenging over the course of the delivery? (Note that we will be asking you more about these individual processes later.)

Section 3: Design and launch

[Explain to interviewee: In the inception phase of the evaluation we spoke to representatives of Ricardo and BEIS about the design and launch process. They provided details on their experience of the design and launch process. The questions below are to see whether there is anything you would like to add.]

5. The scheme was launched with a well-attended webinar. How soon before the programme launch did this take place? How was it advertised? What went well about it and less well?
6. We understand that the scheme was also advertised through BEIS and Ricardo networks – can you tell us a bit more about this? Again, what worked well or less

well about this publicity run? Is there anything you would do differently (or have done differently) in future / follow-on programmes?

Section 4: Application, selection and set-up

7. Please provide your views on the application process – what went well and less well regarding this process? How have any lessons learnt been taken on board for future programming?
8. Were you happy with the overall quality of bids? Were any projects selected which you were unsure about? What actions were taken, if any, to provide further support to or additional monitoring of these projects?
9. Was there anything surprising about the portfolio of applications received?

Unsuccessful Applicants

10. What type and level of feedback (if any) was provided to unsuccessful applicants? What was the purpose of this feedback (if given)? Is there an expectation that unsuccessful applicants will go on to apply for SHDF Main Fund funding or any other BEIS funding? Has this been the case?

Contractual Due Diligence

11. What costs were incurred in the delivery of contracting and due diligence activities?
12. What staff were involved, and time required to support this activity?
13. If delivered by a third party who was it and what role did they have?
14. [Ask only if not covered above] How could this process be improved or delivered more effectively or efficiently?
15. What worked particularly well? And why?

Monitoring

16. In your view, what works well / less well about the programme's monitoring systems?
17. In addition to the standard monitoring processes (see below for reference), ad-hoc communications and information exchanges inform programme delivery – how well are these working in your view? Is there anything missing from the programme monitoring?
18. What is the purpose of the ministerial site visits? How many of these have been undertaken to date and what has been their value? What has gone well and less well about these?

Project-level monitoring

[For info, this comprises:

For SHDF(D) projects, a monthly progress report is provided to BEIS by the local authority team. This report details the progress in terms of tasks accomplished in the previous month, progress against agreed milestones, assessment of risks to project delivery, lessons learnt and a financial overview.

Further to this, a group of seven MOs from the Delivery Partner (Ricardo) engage in monthly site visits for each project. This provides a monthly site visit report conducted by the MO, which provides greater in-depth insights into progress of milestone evidence in addition to supporting evidence (such as images of archetype selection or detailed design drawings). The monthly site visit reports also provide a review of both the project plan and project spend and financial processes, in addition to a list of actions for the next reporting period.

For the three WHR projects of London Borough of Sutton, Nottingham and Cornwall, monthly reporting was submitted to BEIS in which progress against work packages and milestones were detailed, including the challenges experienced by the project team and identification of risk areas. This was further compiled into a monthly lessons learnt log.]

19. At the project level, what oversight, if any, do Ricardo and/or BEIS have of how accurately or well the following are being implemented? Where these concerns fall fully to other authorities (e.g. at local level or elsewhere in central government), to what extent are the potential timelines and challenges associated with such compliance taken into account in Ricardo and BEIS' oversight of the projects?
 - a. PAS requirements.
 - b. Building regulations.
 - c. Planning compliance.
20. Referring to the process map above, can you please provide more information on:
 - a. The 6-month LA Assurance Review
 - b. The GIAA Lessons Learnt assessment
21. In relation to project monitoring and reporting, what direct or practical support do Ricardo and BEIS offer (if any) to projects experiencing problems with:
 - a. project timeline delays,
 - b. tenant engagement challenges,
 - c. procurement challenges / legal contracting issues,
 - d. supply chain issues,
 - e. other delivery challenges.
22. What direct application do Ricardo and BEIS take from the monthly Learning Communities? (Note that we have gathered the perspectives of project teams on these events.)

Scheme Delivery to Date

23. Has the programme been delivered to your initial expectations? What, in your view, has worked well / less well?
24. What have been the main drivers to some projects progressing more-or-less as planned and others not? What have been the success factors and main barriers?
25. What is your view on how (well) the programme is implementing PAS 2035? Please give your views on the interaction of the scheme with the standard?
26. What has been the value and any challenges of having:
 - a. The WHR and SHDF(D) programmes running in parallel?
 - b. The two programmes running in parallel to the SHDF Main Fund?

Section 6: Governance

Communications and engagement

27. Have you been happy with the level of communications and engagement between BEIS, Ricardo and project teams throughout the programme?

Governance and Board Reporting

28. Have you been happy with governance arrangements and board reporting through the programmes?

Lessons Learnt

29. [If not already covered above] How and to what extent have learnings from the programmes been feeding into the programme's Main Fund – particularly the work of the TAF?
30. To what extent have perceptions, motivations and approaches taken as part of the study changed due to the changes seen in the energy market?
31. Has there been any progress on developing the 'Book of Knowledge'?

Section 6: Our evaluation

32. Is there anything about our evaluation that you would like to comment on?

Section 7: Wrap-up

33. Is there anything else about the SHDF(D)/ WHR programmes that you would like to comment on that we have not discussed

This publication is available from: www.gov.uk/government/publications/whole-house-retrofit-and-social-housing-decarbonisation-fund-demonstrator-joint-process-evaluation

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