



Welcome to the Fusion21 Decarb in Focus – Learning the lessons a focus on the Matrix Housing Partnership

19 September 2024



Fusion21 - Introduction

- Gareth Keith, Director, gjk Consultants
- Harvinder Aouilk, Decarbonisation Project Manager, Citizen Housing
- Derek Horrocks, Chairman Sustainable Building Solutions
- Paul Towers, Framework Manager, Fusion21
- Andrew Gray, Member Relations Manager, Fusion21

Agenda

- Introduction and Background – Gareth
- The lessons learnt – Citizen Housing – Harvinder
- Delivering Retrofit to scale - Derek
- Q&A

Fusion 21 Webinar 19 September 2024



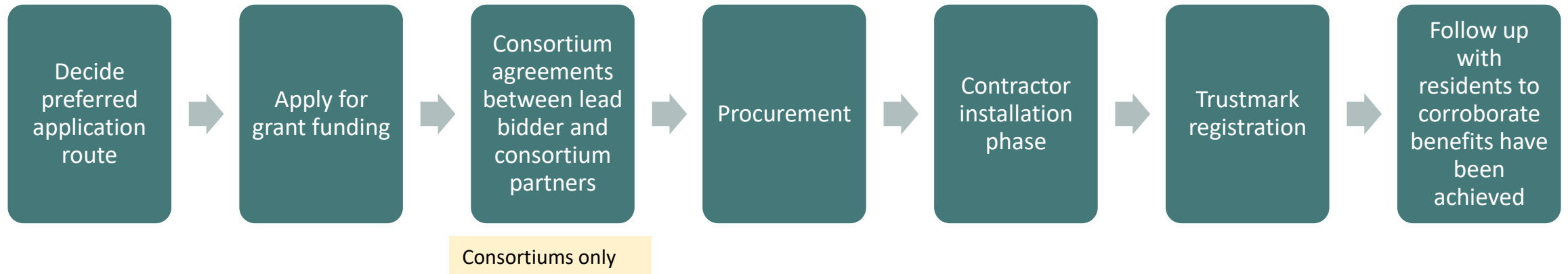
What is the SHDF fund?

The purpose of the Social Housing Decarbonisation Fund (SHDF) is to improve the energy performance of Social Housing in England. The previous Government committed to a £3.8bn Social Housing Decarbonisation Fund over a 10-year period to improve the energy performance of social rented homes, on the pathway to Net Zero 2050.

The primary purpose of the SHDF funding is to raise the energy performance certificate (EPC) rating of social homes to a minimum of EPC Band C. SHDF funding looks to improve a significant number of homes using a 'worst first, fabric first approach. Expected outcomes are:

- **Fuel Poverty:** Reduce the numbers in fuel poverty by improving the energy efficiency rating of social homes and reducing energy bills.
- **Tenants:** Improve the comfort, health, and well-being of social housing tenants by delivering warmer and more energy-efficient homes.
- **Carbon:** Deliver cost effective carbon savings to contribute to carbon budgets and progress towards the UK's target for Net Zero by 2050
- **Green Economy:** Support economic resilience, build the green economy and create green jobs.

Steps to deliver an SHDF project



Applying for funding

- Submit a bid application to either a combined authority or directly to DESNZ*
 - Strategic partnerships
 - Challenge fund
- Individual bids or create a consortium*
 - Individual bids should be over 100 properties
- Eligibility*
 - Registered Housing providers
 - Local Authorities
 - Some charitable organisations with housing stock

*based on current draft guidance provided by DESNZ, which may change.

- What makes a good consortium?
 - Likeminded partners who operate in a similar way and who want to collaborate and not deliver in isolation
 - Transparency in discussing and reporting into the consortium steering group – if one fails everyone fails
- What are the benefits of working in consortia
 - Economies of scale in procurement, PAS:2035 & other shared costs
 - Shared experience and lessons learned across a broad spectrum of activities and measures (and likely different size organisations)

- Consortium agreements cover the governance and framework of how any consortium will function. From dispute resolution, grant drawdown processes, project changes, through to general day to day responsibilities and expectations of all consortium partners. Start discussions early
- Engage legal services to draft a high-level consortium agreement so partners can better understand their roles and responsibilities, seek internal sign off and commit to the lead bidder before the bid is submitted

- Recommended procurement activities before the bid is submitted
 - Engage with surveyors / experts who can assist with retrofit assessments (RA's), modelling, indicative costings and corroborate asset data
 - Engage with procurement frameworks
 - Engage with principal contractors **early** when modelled information has identified measures to be installed
 - Identify external contractors if not included in principal contractor works as this can delay contractor start dates (asbestos removals, gas and electrical works, etc)
- Identify any external resource like consultants to support with project management, reporting or planning applications
- Understand procurement timelines constraints e.g. sign off processes sometime have to go to Board so factor in Board meeting timetables or seek devolved authority
- Ensure all procurement activities are ready to go upon receiving notification of a successful bid

- Ensure reporting processes between contractor and organisation are agreed
- Be prepared for lots of questions about designs, costs and options as there is often more than one solution for an individual property
- Resident access is key so ensure a resident access and any escalation process to the RP has been agreed and stick to it.
- Do not expect the contractor to perform all resident engagement activities – they are your customer's and they will need to talk to you sometimes
- Additional 'preparatory' works maybe required before the installation of the energy efficiency measures, so ensure you have a budget and process in place for these and allow time in any project planning
- Make sure you have more than enough properties on your property list so those that cannot proceed can be back filled immediately rather than looking around for others (suggest 10% of bid quantity)

- All properties benefiting from SHDF grant funding will have to register the completed property on the Governments Trustmark website. The unique number provided confirms to DESNZ that the works are warrantied and have complied with grant funding conditions.
- This activity is often given less priority than the actual installation works, but requires significant administration and evidence gathering to complete
- Beware, if you cannot lodge the property and receive a Trustmark registration number you cannot claim the grant amount for that particular property

Items to consider

- How does your bid fit into your organisation's strategic ambitions related to decarbonisation of your housing stock?
 - Get Exec and Board buy in before you bid
- How good is your asset data and modelling used in your bid?
 - Poor data quality will impact both the costs and delivery timescales of your project and may require project change request
- How will you deal with unexpected cost inflation during the project (e.g. Ukraine war)
 - Ensure you have contingencies
- Resources
 - This is not a roofing or windows programme, but a complex invasive (in most cases) project which often requires dedicated resources, such as Project Managers, RLO's, CoW's, QS's, finance leads, etc
- Who is leading the consortium? (Consortium only)
 - Agree a lead to take responsibility as soon as possible to mitigate application issues
 - If you are leading a consortium what are your minimum requirements for members to join? (quantity of properties they bring to the bid, value of contract, regional similarities, none at all)
 - What are the governance arrangements / framework which the consortium will work under and who will provide legal support for consortium agreements?

Top 6 risks

In no particular order

1. Procurement
2. Asset data quality / property lists
3. Resources to deliver your project
4. Resident access
5. Increased costs during project lifecycle and financial sign off processes
6. Trustmark registration

Lessons Learnt and The General Guide to SHDF EWI.

SHDF WAVE 1 & 2.1

Harvinder Aouilk
Decarbonisation Project Manager

Citizen Housing Group



About Citizen & Carbon Reduction

- Predominately based in the West Midlands region. With over 30,000 Homes
- Diverse post 1950s housing stock.
- Delivered Large External wall insulation Projects, before SHDF.
- Approx 15 Years Experience with EWI. CESP, ECO 1 & 2. No Fines
- Render repair programme, taking advantage of Building Regs.
- SHDF Demonstrator , Wave 1, Wave 2.1. Insulating over 2000 Homes.



Forming the Specification

Are your database and actual stock details aligned? Have a strong idea of the measures you want to consider, with EWI as the main driver? Have you reduced the risk of peppering amongst your stock?

It's **important** you define your works, processes and numbers, to ensure that all stakeholders are aware of the requirements. Demand is high and supply is low. A specification and guidance that retains clarity, will provide interest with stakeholders who are considering to bid and participate with the project.

Defined SOR provides confidence to a contractor, compared to generalisation and vague guidance, where the onus sits with the contractor to go out and measure and spec the requirements. As a response they will increase their OHP, include additional cost to provide the service, or increase fat to accommodate for the risk and concern.

Contract; Various types. JCT Measured Term, PPC2000

Ensure the open book policy is in place. The requirement of the contractor :

- Compliance Pas2035
- Administration requirement of Pas2035
- Back-to-Back agreement with the funding provider- passing the risk of funding being removed.
- Where will the Practical Completion sit?
 - Gathering information for uploading onto your database.
 - Sectional/ or full?



Understanding the Customer Journey

Good communication with examples of outcomes of proposals.

ID the vulnerabilities, markers and customers who are less to take onboard the range of changes.

Consider how you are going to engage with them? Mobile Unit, Coffee and biscuits, and prizes.

Imagine the range of intrusion that the customer goes through for satisfactory completion.

Retrofit Assessment, Asbestos Survey, Contractor's condition survey, Surveys from the relevant installers such as Window and Doors surveys,

ASHP and other operatives forming PIBIs (Pre-Installation Building Inspection), such as loft insulation.

The sequence of the works you are considering to propose, such as minor work first.

Identify impact on EWI related projects

- Decking, plants boxes, Lean to, Canopies, fixture and fittings conservatory. Permissions attained?
- Isolation of the boilers
- Adjustment of pipework and electrics
- Installation of fans
- Door Undercuts
- The final EPC .

Identify Impact on Loft insulation.

If the works are not complete, then what are the outcomes? Passing on the information on how to ensure the correct usage of the installation.

Feedback – Satisfaction report.

Start to think about pooling the information for a case study. Energy Bills, meter readings.

Contractors Induction. Option to form a privacy notice.

Delivery and Design Team

The Principal Contractor.

Early engagement with a principal contractors is a must!

The following points should be considered:

- Previous experience in delivering SHDF projects and following the PAS2035 process with completed Trustmark .
 - Do they know the array of allocated Trustmark professions?
 - Have they installed within their predicted programme?
 - Have they fallen within the budget?
- Customer and Client focused contractors.
- Understanding the customer journey and the requirements of more RLOs.
- Complaints and compensation process. Stage 1 & Stage 2.
 - Ideally align with the client's process of communication.
- INCA Membership, who have a core competence with working with insulation.
- Recognised by SWIGA ?
- The resources to complete the works?
- H&S practice and RIDOR- Action upon such an incidence?
- Working around flues.
- Understanding the scaffolding setup to enable insulating with the thickness of the board specified. Allowing enough room to apply the finishes required.
- What are their lessons learnt?

Delivery and Design Team

Design Team

Early engagement with the retrofit is a must!

Identify and vet your Retrofit assessor, coordinator, designer. Try to evaluate their success and experience. Ensure there is an understanding of “practical and reasonable vs best practice within the team”. How have they overcome cold areas around meter boxes; Asbestos preventing works; Party wall return, where the adjacent has refused works? Can they connect their Raw Data, such as XML files if each stakeholder is separate?

Consider forming a script for the retrofit assessor and how would you process the information internally?

- Damp Condensation and Mould
- Stock Condition Surveys (Mini)
- Identify improvements, Windows & Doors
- Dimension and Height

Design Process

- ID properties that will not attain a D with the measures proposed
- ID Properties that are a C
- Red flags
- Archetypes – Define and design, as a guide for the bid.



Logistic of Delivery

All Retrofit Stakeholders Under the Principal Contractor:

- One point of call & less meetings to hold. Downside is the client influence will be less.
- Less procurement process.
- Less numbers of payments and invoices
- The contractor is responsible for the design process and will be the lead designer.
- Trustmark lodgement sits with the contractor as a PC milestone.
- The contractor is responsible for the array of appointments of surveys. No access outcomes, will still sit with the Client.
- Collection of DESNZ reporting sits mainly with one provider.



Points for Consideration.

- Planning; Identify Permitted Development Areas. Lawful Development v Planning Permission
- Building control; is it required if the contractor provides BBA Self –Certification?
- No access and refusal of works guidance, to be agreed with executive team leaders.
- Have a plan B set of properties ready to roll.
- Have a plan C set of properties ready to roll.
- Ensure you see the Trustmark lodgement as the final jigsaw in your project and accommodate it within the delivery of the project.
- Properties being handover – ensure the final EPC is processed at a similar time to maximise on the event .
- Evidence of internal measures installed, before handover. Zero tolerance.
- Forming a Team to process the works. TLO, CoW, Admin, QS, CA



Thankyou!

Thankyou

SHDF: Delivering Retrofit at Scale in Homes and Communities

Derek Horrocks - Chairman
Sustainable Building Services (UK)
Ltd

Sustainable Building Services (UK) Ltd



We are a purpose-led, multi-award-winning retrofit decarbonisation principal contractor with extensive experience of delivering at scale across all housing tenure types.

- Our work goes beyond decarbonisation to make positive impacts on people's lives - Improving the health, comfort, living conditions and well-being of thousands of households each year.
- We look to maximise impact by delivering mixed-tenure, blended funded projects on an area-based approach to social and privately owned homes.



We are one of the few contractors to have delivered under all SHDF phases - from Demonstrator through to Wave 2.2

SHDF / Retrofit Partnerships & Clients

Including:



Local Authorities



Combined Authorities



Housing Associations



Social Housing Decarbonisation Fund

Key Lessons Learnt / Considerations



Embrace Quality Standards - PAS 2030:2023 / PAS 2035:2023

Rightly puts the client and end-user (resident) at the heart of the retrofit energy efficiency journey

Not complicated with the right project partners - drives quality, enhances the customer journey, promotes collaboration, provides specific dwelling specific data, identifies 'issues' (i.e. damp), etc.

New PAS and MCS standards come into effect in 2025.

Work in Partnership - Collaboration / Communication

Our experience has identified the vital importance of early involvement by all stakeholders - Client, Contractor, Retrofit Assessors, Retrofit Coordinators, Retrofit Designers, EEM Installers and EEM Suppliers.

- Projects require experienced stakeholder teams and adequate client resource
- Specific responsibilities assigned at project inception / commencement
- Helps to ensure that budgets are used effectively and that the maximum numbers of resident's benefit
- Planning, engagement (especially resident) and communication are key for early mobilisation and successful project delivery.

With the right team appointment, collaboration and communication, the installation stage should be seamless and compliance achieved.

Social Housing Decarbonisation Fund

Key Lessons Learnt / Considerations

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Social Housing Decarbonisation Fund

Key Lessons Learnt / Considerations

Importance of Property Specific Data - Impacts of SHDF Procurement, Mobilisation and Successful Delivery

- Existing property data and Individual / Archetype Retrofit Assessments confirm property eligibility, measures, provide supply chain and cost certainty, helps manage resident and client expectations, property issues, planning requirements, etc
- Allows clients to make informed decisions on budgets and future maintenance / energy upgrade programmes

Ensure projects are realistic and deliverable - many previous SHDF projects were scaled-back or undelivered, costs escalated, properties were not eligible for funding or compliant in delivery, with assessments / stock appraisal not correctly conducted.

Easily resolved with data, procurement, mobilisation, selection of the 'right' PAS 2035 provider and contractor.

Effective Resident Engagement

Residents should be at the centre of all planned works and their needs met, and expectations set.

A collaborative communication plan required - clear, concise and realistic messaging from project inception and implemented throughout the customer journey.

Under PAS schemes, residents are impacted by additional surveys and more complex / time-consuming works - without proper engagement with residents, no access and refusals from lack of understanding or poor engagement, are the most common reasons why properties are removed from programmes.

Develop your plan with your project stakeholders / contractor from project inception - it will be key to the overall project success and its mobilisation. If feasible, have a reserve list of properties that could be substituted into the programme.

Social Housing Decarbonisation Fund

Other Lessons Learnt / Considerations

Align Planned Maintenance Programmes

Look to align planned SHDF and associated works, with short / medium term planned maintenance programmes, and escalate work if feasible. This could create long-term cost savings, time efficiencies and importantly reduce the future impact of work on residents. This is especially important where fabric improvement measures and future heating system upgrades are being proposed, Most large- scale contractors will be able to programme and deliver associated / additional works.

Mobilisation / Planning Requirements

Minimise disruption through early engagement with planners, and technical engagement with project stakeholders. Hold early, and continued, on-site and online design meetings to highlight and resolve issues and allow for a flexible delivery programme.

Retrofit Designs

Increased time and complexity for project 'design' period on a property-by-property basis - introduce early and ongoing stakeholder engagement, and regular 'design & technical' meetings to help ensure issues are resolved in advance.

'Clean Heat' - Utility Suppliers / Third-Party Works

There can be long lead times for providers (BT, Gas, etc.) or review of DNO applications to undertake the necessary 'enabling' works to facilitate EEM installations. Begin early discussions with utility suppliers and allow for a flexible delivery programme.

PAS / MCS Supply Chain

There can be shortages of PAS/MCS-certificated installers, and PAS 2035 providers.

Engage early - large retrofit contractors have built up extensive supply chain networks to help ensure supply/install continuity, cost certainty and access to technical / design support for SHDF projects.

Case Study - Unique SHDF Consortia

SHDF Wave 2.1 - Matrix Housing Partnership



Consortium Objectives

Delivery: 40% - March 24 / 60% March 25

- Procured via the Fusion21 framework
- Maximising economies of scale
- Shared common contract documentation
- Collaborating to deliver shared best practice and innovation
- Reduce contract admin
- Common approach to tenant engagement

Project Value: £26m

Southern Region

Client	No. of Properties	Start Date	Completion Date
Green Square Accord	182	Jun-23	Nov-24
Rooftop	157	Jan-24	Mar-25

Total Properties: 905

Midlands Region

Client	No. of Properties	Start Date	Completion Date
Stream 1			
Trent & Dove	80	Jun-23	Jul-24
Trident	68	Jan-24	Oct-24
Stream 2			
Pioneer	77	Sept-23	June-24
Black Country HG	21	Jan-24	Apr-24
Green Square Accord	91	Jan-24	Dec-24
Stream 3			
Citizen	229	Nov-23	Mar-25

SHDF Wave 2.1 - Matrix Housing Partnership

Works are improving resident health, comfort, wellness, living standards and reducing their energy consumption.

- ☾ No. of Lives Improved: 1,750
- ☾ Total Carbon Savings (CO₂ emissions (kg/year): 1,629,000
- ☾ Total Energy Savings (kWh/year): 5,973,000

Project Partners



gjk | CONSULTANTS

FUSION21



Energy Efficiency and Decarbonisation Measures

- ☾ External Wall Insulation
- ☾ Cavity Wall Insulation
- ☾ Internal Wall Insulation
- ☾ Loft Insulation
- ☾ Window and Doors
- ☾ Solar PV
- ☾ Battery Storage
- ☾ Air Source Heat Pumps
- ☾ Low Energy Lighting
- ☾ Ventilation Upgrades

SHDF Wave 3 - Effective Procurement

Limited Market Capacity to deliver 'Large-Scale' Projects

If you have successful retrofit partners delivering, or have identified potential partners, try to engage or appoint imminently - SHDF Wave 2 projects are still being awarded / delivered (up to September 25).

Release of Wave 3 opportunities may initially stretch an already concentrated market, especially with SHDF Wave 3 aimed at further delivery at 'scale'.

Procurement Strategy - SHDF Wave 3

- **Appoint 'Key' Partners at the earliest possible stage** (i.e. Project Inception)

Principal Coordinator / Principal Contractor / Consultants and Retrofit Assessor / Retrofit Designer / EEM Installers - look to partner early to ensure collaboration between project stakeholders - vital to the mobilisation and successful project delivery.

- **Utilise existing National or Regional Decarb / Retrofit Frameworks** to directly appoint direct or tender projects

Will provide quicker project mobilisation and secure capable stakeholder partners than newly / individually tendered opportunities - select your partners carefully on expertise, experience, capabilities and capacity relevant to proposed project scale and complexity.

- **Large-scale Retrofit Management Contractors** can provide full turnkey project solution

A major driver for our SHDF project success has been managing end-to-end project delivery, utilising external networks of independent retrofit supply chain partners to secure, progress, mobilise and complete projects in industry-leading timeframes, to the highest quality, compliance, and customer satisfaction standards.

The logo for FUSION21 features the word 'FUSION' in a bold, green, sans-serif font, followed by the number '21' in a white, sans-serif font inside a green circle.

SHDF Wave 3 - We're Ready

As one of the UK's most experienced tier 1 decarbonisation contractors, we can offer expert support with bid preparation for both the **Strategic Partnership** and the **Challenge Fund** routes.

- We have a long and successful record of supporting large clients and consortia at the strategic level, and we are currently managing and delivering schemes between £1 million and £25+ million.
- We can help you evidence all the key priorities and assessment criteria, including developing strategic fit, delivery forecast, commercial / delivery assurance, building capacity in retrofit delivery at scale, delivery of low carbon heating, an area-based approach and innovation.

We can provide end-to-end retrofit SHDF project support:

- Retrofit consultancy and SHDF application support
- Analysis of your existing housing stock / property energy data
- Specific retrofit approaches in order to maximise funding
- Evidence of property energy / carbon outcomes
- Budget costs and programmes
- Access to fully developed regional and national supply chains
- A mixed-tenure (owner-occupier/private landlord), area-based approach
- Smart Home / Monitoring Technology solutions
- Innovative private finance solutions for infill / private property uptake



Thank you for listening

Derek Horrocks
Chairman and Owner

To find out more about SHDF Wave 3 visit:
www.sustainablebuildinguk.com/shdf-wave-3



Q&A

THANK YOU

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