



December 2024

SHDF Wave 1 Case Study

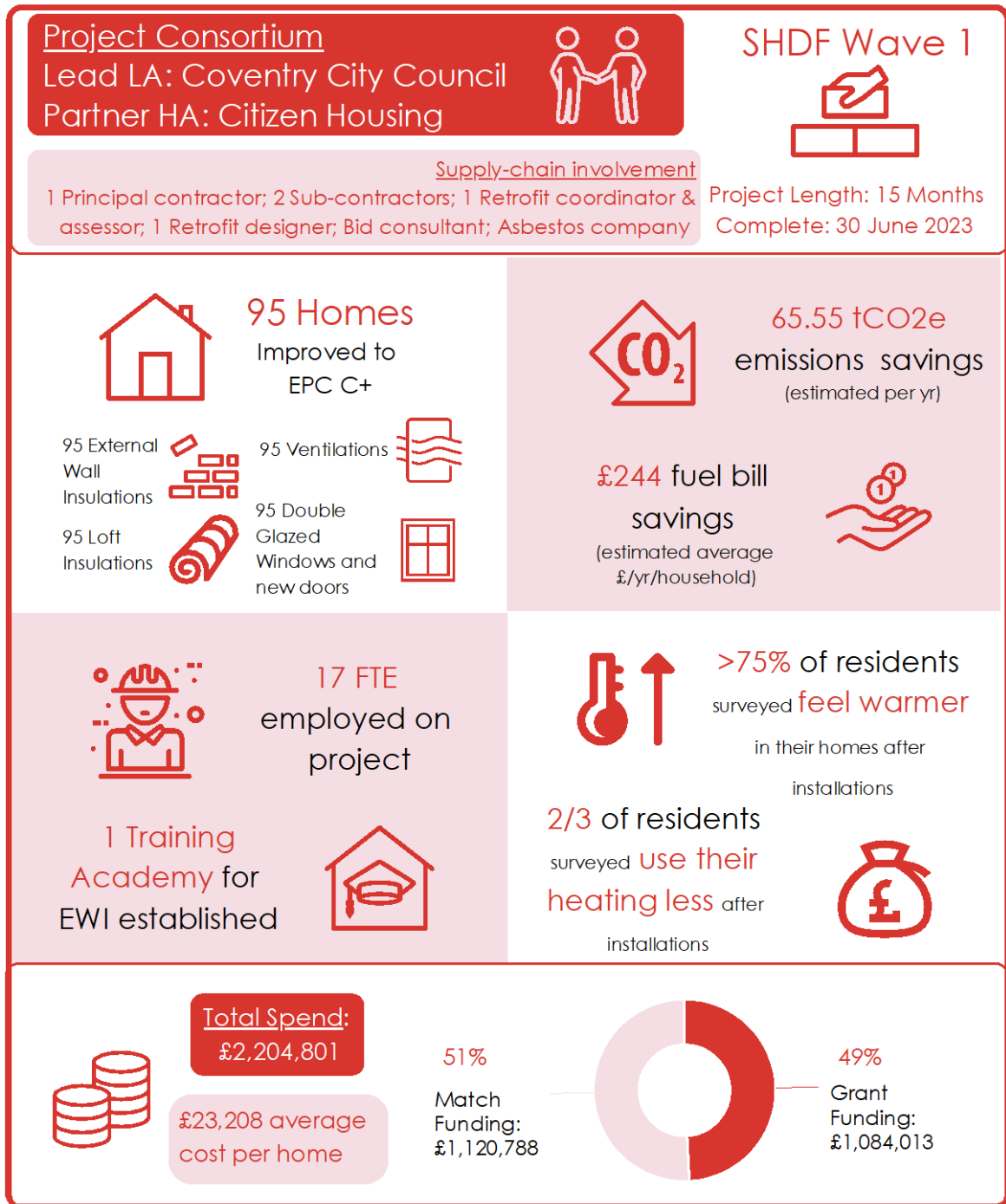


Coventry City Council

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1 Project Summary¹



¹ Carbon emission and fuel bill figures are taken from the SHDF Wave 1 change control log and are based on the National Household Model. Figures are accurate as of 30th July 2024.

Rationale for case study selection

The Coventry City Council project was selected as a case study for the Wave 1 evaluation because it was identified by DESNZ and the Delivery Partner as a project showing good progress against its objectives throughout delivery. The key factors supporting this progress, as explained below, cover:

- Pre-existing experience with retrofit
- Effective project management
- Innovative resident engagement activities
- Effective procurement and management of the supply chain
- A strong partnership working approach

An interesting development noted alongside this project was the creation of a training academy for EWI installation.

Coventry was also selected as a case study because the project was unusual in that it had not accessed SHRA support for help with their project bid.

This case study is based on interviews and surveys with key stakeholders including the project team, the supply chain, and residents, and analysis of scheme monitoring data and project reports.

2 Pre-existing and Preparatory Enablers for Successful Project Delivery

2.1 Valuable prior experience

The Council has participated in several national and local retrofit schemes, including LAD 1 & 2, Sustainable Warmth, the Home Upgrade Grant, ECO and Keeping Coventry Warm. Through these, the Council gained understanding of resident needs and how to further improve energy efficiency in the city's homes with the aim of reaching Net Zero by 2050. Previous funding only supported retrofit of owner-occupied homes, however, so the Social Housing Decarbonisation Fund (SHDF) Wave 1 was seen by the Council as crucial to treat social homes.

Citizen, the lead Housing Association (HA) in the project, is Coventry's largest registered provider of social housing. Citizen also has extensive retrofit experience, including in the Government funded ECO and CESP schemes. There was also experience of LAD schemes within the project team. Their in-house experts have delivered varying types of retrofit work enabling energy savings, and ran a retrofit project in the SHDF Demonstrator scheme prior to joining Wave 1.

2.2 Alignment with existing agendas

Coventry's social housing stock consists of high levels of uninsulated solid wall terrace housing, and has a fuel poverty rate of over 20%, making it one of the worst affected authorities in the country.² The Council stated that the level of retrofit activity in the area was low at the start of

² <https://www.coventry.gov.uk/home-energy-warmth/fuel-poverty-coventry>

SHDF Wave 1, and the scheme offered an opportunity to target households located within areas of high fuel poverty rates and transform parts of the community.

Both the Council and Citizen have policies that prioritise domestic retrofit to decarbonise housing stock, reduce fuel poverty, and improve resident wellbeing. In 2021, the Council adopted the One Coventry Plan 2022-2030, which outlines key priorities for the community including increasing economic prosperity, tackling inequalities, and reducing the impact of climate change. Interviewees from the Council felt that the SHDF programme supported all three of these goals, which enabled key buy-in from the Council's senior members.

The scheme's prioritisation of a fabric first approach further aligned with consortium goals. Citizen noted that there were "quicker wins" available, but they wanted to apply the fabric-first approach to ensure longevity and quality in the works. The funding from DESNZ allowed the team to stretch their internal funding ringfenced for energy efficiency retrofits further.

2.3 Successful preparation and project management

Interviewees and project documentation reported several enabling factors to successful preparation and project management:

- **A strong prior working relationship between Citizen and Coventry City Council** allowed for effective collaboration and sharing of expertise, as well as an equitable division of administrative and delivery workloads.
- **Participation of two further partner organisations allowed the team to leverage key relationships from each organisation.** For example, Citizen tendered in advance of being notified if their bid was successful, which allowed a quicker mobilisation of project delivery. Similarly, the participation of Coventry City Council allowed the delivery team to leverage links to other Council teams to enable efficient delivery of the programme.
- **Learnings and experience from the SHDF Demonstrator**, namely:
 - Knowledge to ensure retrofit work was replicable and realistic to fit within Wave 1 timelines.
 - Familiarity with PAS 2035.
 - Previous work on the same type of housing.
 - Implementation of Sava, an intelligent energy system which enabled the team to efficiently model properties to identify and plan the measures to be installed to improve the homes to EPC C and above.
- **Strong in-house knowledge and experience at Citizen** provided expertise in the practical and technical elements of retrofit, such as understanding the needs of different building specifications and anticipating additional enabling works that may be required throughout the project, e.g., roofing extensions.
- **Citizen's pre-bid outcome supply chain outreach and market research**, which allowed them to quickly organise their delivery team and start designing and implementing measures in a timely manner.

Challenges to successful preparation and project management were also reported:

- **High levels of resource needed to submit the designs for planning permission.** For example, Citizen commented that the time and resource requirements for planning the project were so high that private companies would not make such an investment on their own (without co-funding support).

- **The construction period had to take place during the winter months**, which were characterised by unusually heavy rainfall. This created some delays and necessitated a three-month extension of the project timeline.

3 Success Factors Highlight: Resident Engagement

3.1 Resident engagement activities

The project team considered proactive resident engagement as a key enabler underlying the success of this project. Both Citizen and the Council felt they hold strong relationships with the city's residents through their resident liaison officers. Together, they initiated multiple engagement initiatives that they felt contributed to the low level of resident dropouts (four out of 99 households):

Resident engagement strategies included:

- **Engagement events** for residents to attend and speak directly to project staff across all organisations about the measures and installation processes, as well as raise questions and concerns.
- **Informative letters and leaflets sent to residents** throughout the project to ensure familiarity with the work and timelines.
- Working jointly, **the resident liaison officers from Citizen and Westdale communicated with individual residents and set up bespoke work plans** where necessary. Although not all residents felt visit timings were the most convenient, the project team interviewees felt their efforts to work around people's needs, such as nightshift workers, supported resident buy in.
- **Westdale set up an EWI display van** (Figure 1) in the community to showcase what the works would look like.
- **An aftercare guide was produced for residents**, giving guidance on using and maintaining measures. However, the survey of residents found that only 48% (n=23) of respondents reported being provided with information or guidance on the energy efficiency measures that were installed.
- **Citizen provide access to an Energy Advice Service** which they said they regularly monitor and, where necessary, act upon key metrics from properties identified using Switchee devices (installed in 40 retrofitted homes), such as temperature or humidity anomalies.



Figure 1: Westdale Display Van for SHDF Wave 1

Challenges in resident engagement included:

- The team reported that **in cases where new doors and windows were installed first, residents were resistant to let supply chain stakeholders return to install further energy saving measures**. They reported that doors and windows were the most coveted measures by residents as they are perceived to make the house warmer as well as improve the appearance of properties.

- **Citizen also expressed concerns about resident survey fatigue** due to necessary pre-installation surveys.
- Whilst based upon small samples (24 residents surveyed, 6 interviewed), **residents gave a less positive picture than the project team**, with some residents stating that they did not fully understand the measures they would receive. Of the 23 surveyed residents with works completed at the time of the survey, 52% and 43% felt satisfied with communication from their landlord and the supply chain stakeholders respectively.

"I didn't hear from them again for months and then all of a sudden they came round and said, 'We're here to do your cladding' and I said, 'What cladding?' " – Resident Interviewee

Key learnings:

- The project team learnt the value of having dedicated resident liaison officers and are looking to implement the role's responsibilities within their own staff.
- Both the Council and Citizen have gained a better understanding of resident engagement, particularly the establishment of relationships, strong communications via events and leaflets, and visual vans.

3.2 Resident outcomes

Citizen and Coventry City Council reported receiving positive resident feedback throughout the project. In interviews, Citizen also felt the measures have strengthened community cohesion, safety, and pride in place, and plan to use resident engagement learnings in their progression and scale-up for SHDF Wave 2.1. Most residents who had completed installations at the time of the survey stated that they were satisfied overall with the installation process and quality of the measures. Resident outcomes, as reported in the evaluation survey, are summarised in Figure 2.

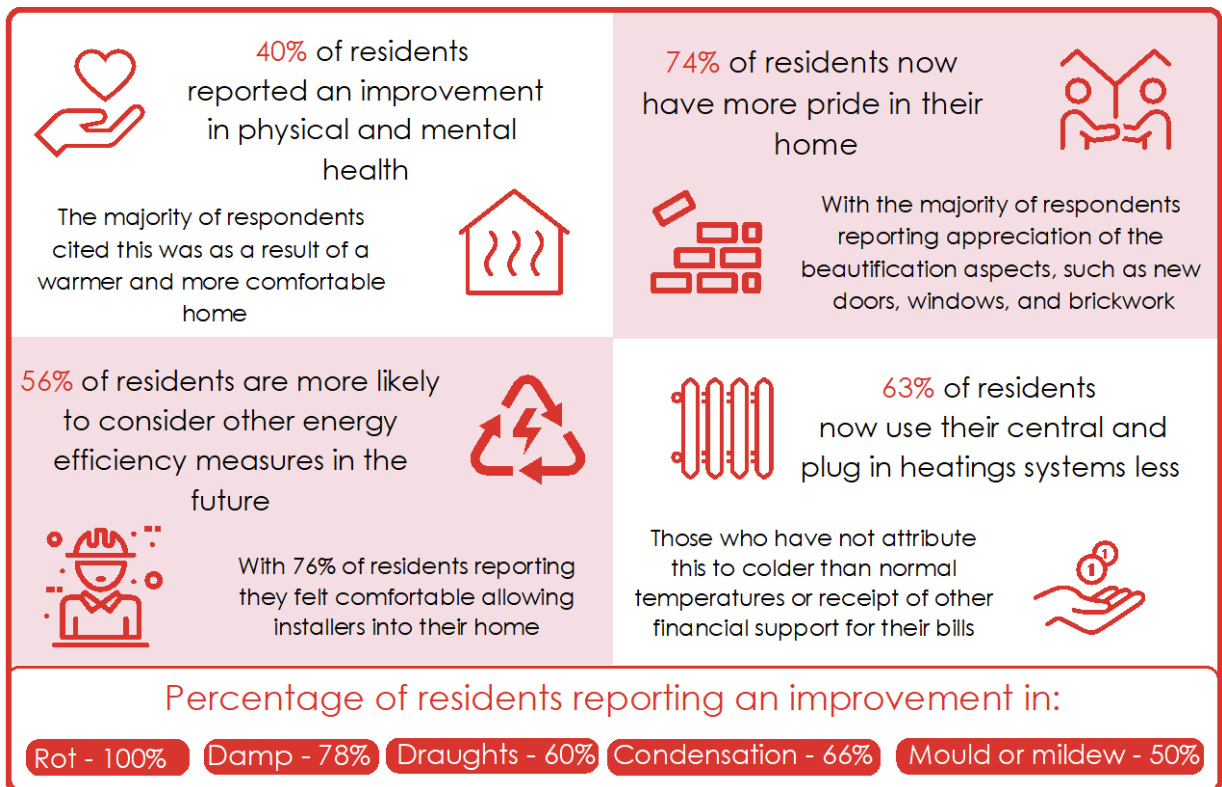


Figure 2: Evidence on resident outcomes from resident survey (base: 24 residents) and interviews (base: 6 residents).

"They sent a letter through that we had to read and agree with and then someone came out to talk about it ... [I felt] fantastic, amazing, and brilliant. We were going to do [and self-fund] the walls on the inside but it was going to cost an absolute fortune and it is only a rented house and not bought." - Resident Interviewee

4 Success Factors Highlights: Supply Chain

4.1 Early planning and procurement of the supply chain

Citizen engaged with the supply chain early on, both through previous connections and the use of the Retrofit Academy 'Retrobok' service to identify suppliers. Prior to receiving notification of bid success, Citizen carried out an open tender process to contract Retrofit Assessors, Coordinators, designers, and construction staff. Citizen contracted a well-established organisation (Westdale) to serve as the principal contractor and deliver the EWI and roof lines. In interviews, the project team noted benefits from working with a large dedicated EWI contractor as they offered more resources to meet the demands and timescales of the project. In turn, Westdale sub-contracted another contractor to complete the loft insulation. The windows and doors installations were sub-contracted to another local company, with whom Citizen have worked with previously.

From their experience in the SHDF Demonstrator, Citizen anticipated rising construction and material costs as a potential project risk, and were able to mitigate cost increases by:

- Working with a contractor during the application for better understanding of the stock, necessary measures, and costs, enabling them to factor in inflation into the budget.
- Early planning and securing the rockwool insulation upfront.

4.2 Collaborative project management of the supply chain

Coventry City Council and Citizen took a **collaborative approach to team management by continuously liaising with contractors** throughout the project. Supply chain team members interviewed all reported having a strong and positive relationship with the consortium partners, with one noting it to be "exceptional". One key enabler of the collaboration was to have **regular roundtable discussions with all delivery members**.

Supply Chain Highlight – EWI Training Academy

Driven by the need for skilled labour following the SHDF Wave 2.1 announcement, Westdale was incentivised to invest in a multi-year plan to run an EWI training academy for their wider workforce. The Academy has been in operation since April 2023 and has been a useful enabler in developing the EWI supply-chain necessary for the growing scale of work to be conducted in the coming SHDF wave.

Retrofit coordinators interviewed felt Wave 1 enabled job growth in their sector, although some were wary of oversaturation of the market should the government support for retrofit cease and demand reduce. Several supply chain interviewees noted that the short timeframes and availability of lots of funding all at once has created a shortage of skilled workers and less flexibility to overcome material cost increases from inflation. A few noted it was particularly difficult to find employees and available suppliers locally, as encouraged by the Council.

Key learnings:

- Citizen's early mobilisation of the supply chain and utilisation of existing relationships promoted efficiency and trust in supply chain processes.
- Clear communication with supply chain organisations has enabled successful project delivery.
- Citizen have reported significant technical learnings and, along with the council, are now fully confident that they will be able to decarbonise their housing stock by 2050.

5 Future Plans

The project team members interviewed considered the 95 retrofitted properties, such as those in Figure 3, are now installed with sufficient fabric measures to make them 'net zero ready', with ambitions for future solar PV and air source heat pump installations. Both the Council and Citizen have successfully applied to and began their SHDF Wave 2.1 project, scaling up to retrofit 2,000 social homes in Coventry.



Figure 3: Project homes with brick finish

In addition, the Wave 1 project has contributed to Coventry's wider decarbonisation agenda. After the Wave 1 bid, the Council commissioned a Professor of Environmental Policy at the University of Leeds and UK Investment Bank Lead Climate Advisor to develop a decarbonisation roadmap for the city. This research showed that domestic emissions are the biggest contributor to the city's carbon footprint, totalling 30% of all emissions, making retrofit schemes of vital importance. As such, the council has developed a draft Climate Change Strategy to reach net zero by 2050, wherein decarbonisation of the housing stock is a key priority for upcoming plans and city investments.

"The delivery standards are better – more expensive, but the Wave 1 funding gave us the pot of money to be able to do that." – Representative from Citizen

6 Data sources

Data sources used to produce this case study	
<i>Social housing landlord Interviews</i>	2 interviews (Q 3, 2023) with: <ul style="list-style-type: none"> • 3 Wave 1 representatives from Coventry City Council • 4 Wave 1 representatives from Citizen
<i>Supply chain stakeholder interviews</i>	5 interviews (Q 3-4, 2023) with: <ul style="list-style-type: none"> • two retrofit coordinators • two principal contractors • one project administrator
<i>Resident surveys and interviews</i>	2 tranches of a survey with residents for whom installation work had started or had their works recently completed. 568 respondents overall (24 respondents from Coventry, Q 2-3, 2023). Not all respondents may have answered all questions, so for some questions the base may be smaller.

	6 in-depth interviews with residents who also took part in the survey and consented to take part in a follow-up interview (Q 3, 2023).
<i>Final project report</i>	1 final project report delivered by Coventry City Council and Citizen to DESNZ (Q 4, 2023)
<i>Scheme monitoring data</i>	Scheme monitoring data, as reported by the project team and assessed by the Wave 1 Delivery Partner.

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