NHMF Awards 2026: Keeping Residents Warm – Shortlist
(Best Warm Home Initiative)

- Places for People & Kestrix
- Abbeyfield Living Society & Dodd Group
- Welwyn Hatfield Borough Council & Morgan Sindall Property Services
- Peabody & Eco Approach Ltd

Summary: A wide range of projects (size, demographics, approaches & funding) all show how homes can be improved to keep residents warm, reduce their bills, improve health, and reduce carbon emissions.

What is the project and what is innovative about the service provided?

Places for People & Kestrix – thermal imaging, photogrammetry, and AI used to measure how well buildings retain heat using Kestrix's Rapid Thermal Performance Assessment (RaThPA) to undertake external-only assessments of homes, quickly, remotely, and at scale. Drones or satellites used to gather thermal and visual data, which is then processed to estimate U-values and detect areas of heat loss. Current approaches rely on manual inspections and assumed data. Kestrix automates the entire process, allowing thousands of properties to be assessed in a matter of days. Funding can be targeted more effectively, works planned with confidence, and verify impact post-retrofit. Its long-term goal is to work with regulators for it to be a tool for validating and verifying retrofit outcomes, and identifying gaps in EPCs, etc.

Abbeyfield – Collaboration with its strategic partner Dodd Group to design an energy-efficient heating solution for Girton Green, a bustling 3-storey retirement facility in Cambridge offering 78 stylish apartments. The team identified defects in the complex's original heating distribution pipework from 2012, which had degraded (leaking in communal areas) and original mark 1 HIUs in residents' apartments needed replacing. To resolve these issues while minimising disruption to residents, new distribution system was installed while keeping old system operational. This allowed residents to remain with full access to heat and hot water. Rather than replacing old pipes running through shared interior spaces, stainless steel pipes were installed through the roof voids and into each apartment. To minimise disruption to residents, engineers visited each apartment only to disconnect original HIUs and replace with Worcester Bosch's new high-efficiency model. Final stage was flushing all new pipework (BSRIA-BG29 guidelines), balancing, and commissioning the new HIUs. Plant room also brought up to standard, new BMS system installed with remote access and designed to automatically alert reactive maintenance teams of any issues.

Welwyn Hatfield BC – retrofit programme, delivered in partnership with Morgan Sindall Property Services (MSPS), to improve energy efficiency for 234 homes, tackling fuel poverty and reducing carbon emissions by taking a "fabric first" approach before introducing mechanical or renewable systems. This ensures long-term energy savings and better resident comfort. What sets this project apart is its data-driven asset strategy, aligning retrofit works with planned maintenance to maximise efficiency and minimise disruption. This enables tailored solutions for challenging property types, such as the Wimpey No Fines archetype, through combined interventions like insulated flat roofs, external wall insulation, triple glazing, and mechanical ventilation. These measures significantly reduce heat loss and improve indoor air quality, helping residents enjoy warmer, healthier, and more affordable homes.

The resident engagement was innovative, using joint sessions, energy advice cafés, and "meet the contractor" events to provide transparency and practical support, empowering

residents to make informed energy choices. Social value is embedded throughout, with MSPS working alongside the Social Value Portal to measure outcomes such as reduced fuel poverty, improved wellbeing, and local employment. All homes upgraded to EPC Band C, with £421 av. annual energy bill saving/home and 1.75 tonnes CO_2 cut annually per household. This holistic approach ensured that not only was the housing stock decarbonised but the social and economic fabric of the community was also strengthened.

Peabody – ECO4 energy-efficiency improvements to 25 homes (outdated electric heating and poor insulation) delivered in partnership with Eco Approach, providing specialist retrofit design and installation under the ECO4 framework. Completed in two phases:

1. Fabric-first upgrades – loft & cavity-wall insulation and improved airtightness.
2. Low-carbon technology – air-source heat pumps and solar panels a year later, so homes run on clean, self-generated power.

This sequencing meant residents first used less energy before producing their own. This eliminated fossil-fuel use, creating first fully decarbonised Peabody homes in Enfield. It achieved up to 141 tonnes of CO_2 savings. Innovation seen in combining energy-efficiency measures with small scale renewable generation, proved local, resident-centred retrofit can deliver both affordability and zero-carbon outcomes. It has been used internally as a model for other Peabody retrofit schemes. Surplus electricity is sold to the grid.

What are the measurable benefits to the client, the contractor, the resident, and the neighbourhood?

Places for People & Kestrix – Client Benefits: enabled to make faster, more accurate and cost-effective retrofit decisions, using external-only thermal assessments to assess thousands of properties in days not months. It reduces administrative burden and speeds up access to funding. One client was able to prioritise homes based on heat loss severity, location, and eligibility for government funding. This enabled them to build a robust, data-driven bid for SHDF support. Another client used before-and-after assessments to demonstrate thermal performance improvements post-retrofit. Value for money by replacing traditional internal energy surveys, which can cost £200–£500/home, with fast, external-only diagnostics at a fraction of the price (£16-50/home depending on the volume/area).

Contractor Benefits: clearer, data-backed scope of works to understand where interventions are needed and where they are not. This allows better cost planning and fewer unnecessary works, reducing waste and increasing efficiency of retrofit measures. Post-retrofit scanning provides evidence of impact, reduces disputes, and helps validate quality of work delivered.

Resident Benefits: both immediate and long-term by targeting retrofit more effectively to help prioritise homes with the highest heat loss and energy bills, supporting those at risk of fuel poverty. With one client, heat loss data used to identify homes most in need of intervention, contributing to better living conditions for vulnerable residents. No disruption, no need to book appointments, take time off work, or allow surveyors into their homes because these assessments are external-only.

Neighbourhood Benefits: housing providers and local authorities can take a strategic view of retrofit. Rather than relying on blanket approaches, they can identify clusters of high-need homes and design area-based interventions that improve whole neighbourhoods. This is more efficient logistically and can unlock economies of scale. Improved housing stock leads to reduced carbon emissions, lower energy bills, and enhanced thermal comfort, benefiting community health and wellbeing. Over time, property values can increase, maintenance costs reduced, and greater trust between landlords and tenants fostered.

Abbeyfield – The project not only protected residents, it also helped protect the outstanding reputation of this exclusive complex (quality service & luxurious amenities including a spa). The new state-of-the-art systems reflect the standards that current and potential residents expect. Poor heating can exacerbate health conditions for the elderly, increasing risk of strokes and falls. The creative strategy meant residents were not without heating and hot water facilities, safeguarding health, comfort, independence, and well-being.

Client Benefits: renovations allowed Abbeyfield to meet one of its 3 key sustainability targets (ESOS Compliance) to reduce overall energy use. The twin plate HIUs is a key step in meeting another target (all apartments ECP C+ by 2030). Wet radiators in common areas were replaced with electric radiators powered by solar panels, sustainable measures that reduce costs and improve overall efficiency in the journey to Net Zero. By making resident engagement (pre-construction to project completion) a priority, hosting coffee mornings and formal meetings allowed its Chief Executive and Dodd's Director of Strategic Projects to present to 100+ residents, answering questions and implementing feedback. This also reassured leaseholders that they would not be asked to take on additional costs. Protected from future risk of leaks in high-traffic areas by relocating the pipework routes. Hydraulic separation from the new HIUs to the plant room eliminated risks of an apartment flooding in the event of a failure.

Contractor Benefits: strengthened relationship client built since April 2023. Its ongoing FM partnership benefits both parties, allowing for streamlined solutions and future opportunities to deliver excellence and innovation to Abbeyfield's residents across England.

Resident Benefits: Poor heating can exacerbate health conditions for the elderly, increasing risk of strokes and falls. The creative strategy meant residents were not without heating and hot water facilities, safeguarding health, comfort, independence, and well-being. The teams' dedication to keeping disruption to a minimum (installing pipework through the roof void not communal walkways and shared spaces avoided them being closed off during works). Old PVC pipes flushed out and left in situ to eliminate the unnecessary disruption of removal allowed residents to maintain the relaxed, social lifestyle expected in a retirement village. The transition from the old heating system to the new was seamless and non-invasive. Full-time Customer Liaison Officer advised them of programme of work and dealt assiduously with any issues.

Neighbourhood Benefits: social value to local community by employing staff from the area, including on-site Customer Liaison Officer, project's Site Manager and Site Supervisor. Dodd Group's Customer Care Steering Group trialled a new NPS scheme across this contract, with an excellent customer satisfaction score of 78— an impressive 41 points above the industry average.

Welwyn Hatfield BC

Client Benefits: programme directly supports its Transition to Net Zero Strategy, improving over 600 social homes through a fabric-first approach. Measures such as insulated flat roofs, external wall insulation, triple glazing, and ventilation upgrades result in each property saving approximately 1.2 tons of carbon emissions annually and energy bills reduced by an average of £426. Operational efficiency, reduced duplication, and minimised disruption to residents by aligning retrofit works with planned maintenance. EPC ratings improved to Band C or better, future maintenance demand reduced and asset life extended. Successful delivery strengthens WHBC's eligibility for future funding, including the SHDF.

Contractor Benefits: Its approach to hard-to-treat properties, particularly the Wimpey No-Fines archetype, refined using bespoke solutions that combine high-performance insulation and modern ventilation. MSPS works with HACT to quantify social value (i.e., employment, skills development, and improved wellbeing). Data-driven delivery enhances operational capability, builds client trust, and positions MSPS as a national leader in retrofit innovation.

Resident Benefits: immediate improvement in comfort, affordability, and health, with warmer, more energy-efficient, and healthier homes. Average energy bill savings of £426/yr alleviate fuel poverty and ease financial pressure. Engagement activities (meet-the-contractor, energy advice cafés), provided practical guidance, building confidence in managing their upgraded homes. Early feedback - increased satisfaction, less damp and condensation, and improved wellbeing from better living conditions.

Neighbourhood Benefits: programme contributes to visible regeneration with modernised facades and improved housing enhancing neighbourhood pride and cohesion. Improved local air quality and environmental health from reduced CO_2 emissions (720 tons/year). Social and economic value through local employment, apprenticeships, and training by investing in local supply chains and developing retrofit skills to support sustainable growth.

Peabody

Client Benefits: supports its commitment to reach net zero by 2050, strengthens resident relationships, and provides robust data to guide future retrofit programmes. It delivers measurable environmental (141 tonnes CO_2 emissions saved/yr equivalent to 12 petrol cars or 25 return flights London to New York) and organisational gains.

Resident Benefits: lower energy use, stable indoor temperatures, and additional income from Smart Export Guarantee. Since October 2024, residents have earned an average of £139 each (one household earnt £241). Heating bills reduced by up to 50% pre-works levels (dependent on usage and occupancy). Improved comfort and reduced financial pressure during colder months reported. Residents have a better understanding of how to monitor and manage new systems from regular engagement sessions, promoting long-term behavioural change.

Neighbourhood Benefits: contributes to cleaner air, lower collective energy demand, and greater awareness of sustainable energy use.

What are the financial costs and measurable cashable benefits over a defined time period?

Places for People & Kestrix – It provides accurate, fast, and low-cost building diagnostics and removes key bottlenecks in planning retrofit. It is a practical, scalable route to delivering energy efficiency at pace.

Cashable Benefits: Traditional internal energy surveys typically cost £200–£500/home and require property access, scheduling, and manual labour. External-only thermal assessments at less than £100/home gives a cost reduction of over 70%. One project 785 homes were scanned at £50/home in weeks compared to traditional survey representing savings of more than £100,000. These savings allow clients to allocate more budget towards actual retrofit works, maximising impact without increasing overall expenditure.

Abbeyfield – Impressive turnaround (started January 2025, completed early October) at overall cost of £1.5 million + VAT for all services, including pipework, HIU installation and extensive improvements to the plant room including introducing a side stream filtration system and replacing the main distribution pump sets. New primary plate heat exchanger installed, creating 3 hydraulically separated circuits. Each circuit can be operated remotely to run at different temperatures and speeds or turned off when not needed. The new BMS system allows ALS to accurately measure individual heat usage of each apartment to charge residents a fair and accurate service charge. Twin plate HIU's give residents more control over their heating and hot water usage, which will significantly reduce running costs and overall energy usage. The partnership developed a goal to source 10% of site's energy from solar power, estimated to avoid 11 tons of CO_2/year, an estimated £449,000 NET savings over the next two decades. Dodd set an example by choosing high-quality, guaranteed

materials from trusted suppliers, such as pipework from Geberit and high efficiency BESA certified HIUs from Worcester Bosch, with excellent warranties (8 years for HIUs & 25 years for pipework), safeguarding future capital costs for ALS and its residents.

Welwyn Hatfield BC – £6 million from SHDF to retrofit 234 homes to save £426/yr energy bills and reduce carbon emissions by 1.2 tons. A combined annual saving of approximately £99,684 and a total carbon reduction of 280 tons (in 10-year period, saving around £1 million in energy costs, reduced fuel poverty and improved wellbeing). Integrating retrofit works with planned maintenance, achieved efficiencies of 10–15% per property from shared access costs, reduced scaffolding and site setup, and streamlined project management. Approach minimises disruption, extends asset life, and maximises initial investment. Commitment to social value makes a meaningful difference in residents' lives and wider community. Working with the Green Hub, has delivered educational sessions on recycling, damp and mould, and hosted three HEAT events to support energy awareness. These initiatives reflect their belief that sustainable housing goes hand-in-hand with community wellbeing. Combined financial, environmental, and social returns demonstrate a cost-effective, high-impact model for local authority housing decarbonisation, setting a benchmark for future retrofit initiatives.

Peabody – used ECO4 funding (no direct cost to residents) to upgrade 25 homes, total cost £375,000 approx. (£15,000/property). Resident export income av. £139/home (£241 max), up to 50% annual energy bill reduction/household (depending on use). Annual carbon saving around 141 tonnes/year. Since works fully grant-funded, residents keep all financial benefits (energy savings & export income). It benefits from reduced maintenance demand, better building performance, and verified impact data to support future retrofit investment. Scheme is projected to save 1,400 tonnes of carbon over 10 years, while continuing to deliver direct financial benefits for households.

How relevant is this as an example that might be followed by other organisations?

Places for People & Kestrix – It is a highly relevant system for other organisations to use to deliver scalable, cost-effective, and impactful climate solutions. The approach demonstrates how advanced technologies like thermal imaging, AI, and remote sensing can be applied to solve systemic environmental and social challenges, in this case, the urgent need to decarbonise buildings. As a fully external, automated, and affordable assessment method, it removes key barriers to action such as access, cost, and accuracy. Model already adopted by different industry players and there is strong potential to growth across UK and internationally. It is investing in the transition from drones to aircraft and satellite-enabled assessments. They are engaging with regulators and standards bodies to embed this solution in retrofit validation processes and support mainstream policy adoption. Longer term, it will continue to deliver social and economic value by improving home energy efficiency, reducing fuel poverty, lowering emissions, and creating data-driven transparency in the retrofit ecosystem.

Abbeyfield – The project's innovative sustainability and carbon reduction measures, such as introducing solar-power and installing a reactive BMS system, allowing remote control of pipe circuits to minimise unnecessary use, set a strong example to other organisations. The innovative measures taken to minimise disruption to residents and to stop issues early by the installation of a remotely accessible BMS with reactive alerts, can be adopted by other organisations. It shows how quality professional partnerships built on trust drive innovation and allow for swift, effective resolutions. By working in close partnership and tackling issues as soon as they were identified, the teams were able to design a creative solution to reduce future risks. Dodd's risk assessment identified that if pipework degraded further, the system may have become impossible to restore, leaving vulnerable residents without heating and

hot water while extensive and disruptive works were completed. Other organisations can benefit from investing in partnerships since close collaboration drives innovation. This resident-first approach is an example of best practice to inspire others. Open, transparent communication and a commitment to minimising disruption ensured good resident morale and best outcomes for everyone involved in the year-long project. The innovative solutions kept the needs of residents at the heart of the project from start to finish.

Welwyn Hatfield BC – The retrofit and decarbonisation programme is a highly relevant and replicable model for other local authorities, housing associations, and social landlords. Its strategic design, integrated delivery, and measurable outcomes offer a blueprint for organisations aiming to meet net zero targets while improving resident wellbeing and housing quality. Its fabric-first approach prioritises improvements to the building envelope, such as external wall insulation, triple glazing, insulated flat roofs, and mechanical ventilation, before introducing low-carbon heating systems. This ensures maximum energy efficiency and long-term sustainability. The approach is particularly effective for hard-to-treat property types like Wimpey No-Fines homes, directly applicable to organisations managing similar stock. It demonstrates how overlaying retrofit works with planned maintenance can deliver significant operational efficiencies, reducing costs related to scaffolding, site setup, and labour mobilisation. This integrated model minimises disruption, improves project coordination, and delivers 10–15% cashable savings/property, an approach that can be easily adopted by other housing providers. The commitment to social value, working with HACT to quantify outcomes (reduced fuel poverty, improved wellbeing, local employment, and skills development) provides a clear evidence base for others to demonstrate return on investment and secure future funding. The resident engagement was also central to the programme's success, so that residents informed, empowered, and supported throughout the retrofit process. This inclusive approach fostered trust, encouraged energy-conscious behaviours, ensuring long-term impact. It is a valuable model for occupant centred delivery. In summary, the WHBC and MSPS retrofit programme combines technical innovation, financial efficiency, social impact, and resident engagement into a cohesive, scalable model. It offers a practical, proven pathway for other organisations to follow, demonstrating how collaborative, data-driven retrofit programmes can deliver high-impact results across the housing sector.

[This partnership demonstrates how strategic collaboration, technical innovation, and embedded social value can deliver a replicable model for sustainable housing retrofit. It not only decarbonises homes but also strengthens the social, economic, and environmental fabric of the community.]

Peabody – Dells Wood demonstrates that small, carefully sequenced retrofit projects can deliver major energy and carbon savings while improving resident wellbeing. Its design and outcomes provide clear lessons for other landlords and housing providers. Start with fabric-first approach (insulating and sealing homes, then add renewable systems) to improve performance and cost efficiency. Sequence work to reduce disruption, manage costs, and ensure each stage delivers lasting value. Engage residents early – regular communication builds trust, helps with system handovers, and improves resident satisfaction. Use grant funding strategically, leveraging schemes such as ECO4 can achieve full decarbonisation without financial burden to residents. Strong partnerships – Peabody worked with Eco Approach to plan and deliver works efficiently and high technical standards. Landlords and contractors can collaborate effectively to maximise the benefits of national retrofit funding schemes. Peabody is using this project to inform wider estate-level decarbonisation plans and share learning with sector partners.