Social Housing Net Zero Heat Fund
Progress Report

Scottish Government Supported Social Housing Net Zero Heat Fund Projects – February 2026

February 2026

Scottish Government
Riaghaltas na h-Alba

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Introduction

This document produced by the Scottish Government's Directorate for Energy and Climate Change summarises the projects supported by the Social Housing Net Zero Heat Fund (SHNZHF).

The Social Housing Net Zero Heat Fund offers capital grant funding to support social housing landlords across Scotland to install clean heating systems and energy efficiency measures across their existing housing stock.

The document includes a series of one-page summaries for each of the projects supported by the Scottish Government through the Social Housing Net Zero Heat Fund.

The grant figures reported under each project in this progress report are the amount awarded to each project at the time of application. These figures may not represent the amount actually spent by each project but, for consistency and in the interests of prompt publication, the amount awarded has been reported. The amount awarded was generally reported in previous progress reports with a few exceptions, so this has been corrected.

All projects will have been required to drawdown their grant in full within the financial year grant funding was awarded. Any extension to project completion timelines will have been on the condition of this requirement being met.

For questions relating to the projects summarised in this document or Fund enquiries, please direct these to netzerosocialhousing@gov.scot.

Glossary

ASHP – Air Source Heat Pump
GSHP – Group Source Heat Pump
ESH – Electric Storage Heater
HHRSH – High Heat Retention Storage Heater
MVHR – Mechanical Ventilation with Heat Recovery
UFI – Underfloor Insulation
LI – Loft Insulation
LITU – Loft Insulation Top Up
RIRI – Room in Roof Insultation
Solar PV – Solar Photovoltaic Panels
SEWI – Structural External Wall Insulation
IWI – Internal Wall Insulation
EWI – External Wall Insulation
CWI – Cavity Wall Insulation

Projects Funded Under the Social Housing call of the Low Carbon Infrastructure Transition Programme (LCITP)

Project Title: Moray Council Off-Gas Electrification of Heat

Project Organisation: Moray Council

Technology Type(s): ASHP, Solar PV and Battery Storage

Location(s): Multiple locations across Moray Council

Grant Value: £1,300,750

Completion Date: November 2023

Project Headline: Providing clean heating and microgeneration to 121 homes across Moray

Project Description:

This project across Moray focused on renewable generation and electrification of heat with a holistic whole energy systems approach. 121 socially rented properties had a combination of measures installed depending on property size and archetype.

The low carbon technology combination replaced a range of inefficient heating systems including solid fuel (coal) back boilers, electric panel heaters and electric storage heaters and so had a significant impact in reducing the risk of fuel poverty with the communities and improved householder comfort.

The project aimed to address the problem of decarbonising heat in smaller, hard to treat domestic properties. Tenant advice and support as well as tariff and supplier switching support was provided to ensure householders understand the new systems and how to get the most out of them/advice on how the systems interact with each other and how to maximise PV generation and ensure maximum efficiency of the heating systems are provided through a range of communication methods.

Project Title: Carron Estate ASHP Heat Network Project

Project Organisation: NG Homes

Technology Type(s): ASHP, Solar PV

Location(s): Springburn, Glasgow City Council

Grant Value: £3,695,187.60

Completion Date: July 2022

Project Headline: Installation of ASHP system to replace existing electric wet system in 314 homes in tower blocks.

Project Description:

This project saw NG Homes install ASHPs into seven tower blocks in the Springburn area of Glasgow, North of Glasgow City Centre. There are four 16-story high-rise tower blocks and three 9-story tower blocks situated on the Carron Estate. The 314 dwellings within the blocks previously had a mixture of ‘old’ inefficient electric storage and electric wet systems, which are expensive to run.

The project installed a Commercial-Grade Mitsubishi Ecodan CAHV Monobloc Air Source Heat Pump (ASHP) system which is connected to an underground district heat network that will serve all seven blocks. The heat network has pre-insulated pipework connected to insulated steel risers through each of the blocks. Insulated copper pipework forms the lateral pipework into each of the dwellings. The system also benefits from the installation of solar PV onto three of seven blocks.

Project Title: Moray and Aberdeenshire Heat Pumps 2021

Project Organisation: Osprey Housing

Technology Type(s): ASHP

Location(s): Multiple locations across Moray Council and Aberdeenshire Council

Grant Value: £342,441

Completion Date: May 2022

Project Headline: Providing clean heating to 61 homes across Moray and Aberdeenshire

Project Description:

This project took place in 61 properties in Burghead, Aberchirder, Garmouth and Keith. Replacing inefficient storage and panel heaters with ASHPs, efficient radiator system and hot water cylinders. A radiator was installed in each room with it's own thermostat and programmer. The new hot water cylinder is also heated by the ASHP. This helped to reduce fuel bills as the hot water was also heated with the off-peak electricity which was expensive to run.

These properties were selected for this project due to the concerns repeatedly raised by tenants regarding the effectiveness and the affordability of their previous heating systems. The housing association undertook monitoring of the properties to ensure the highest priority properties were being included in this project.

Project Title: Decarbonisation and Renewables Demonstrator Project

Project Organisation: Dumfries and Galloway Housing Partnership

Technology Type(s): ASHP, Solar PV, Battery Storage

Location(s): Multiple locations across Dumfries and Galloway Council including: Annan, Dumfries, Canonbie, Castle Douglas, Dalbeattie, Gretna, Kirkcudbright, Langholm, Lockerbie, Moffat, Newton Stewart, Sanquhar, Stranraer, Thornhill

Grant Value: £1,481,340

Completion Date: January 2023

Project Headline: Project replaced solid fuel heating in 101 properties with combined measures including ASHPs, solar PV panels and battery storage.

Project Description:

The project involved upgrading 101 solid fuel properties through the installation of ASHPs, solar PV panels and battery storage technology to decarbonise heat provision.

The project was designed to ensure those most likely to be in or at risk of fuel poverty and living in properties that were the least energy efficient were included. The tenant group largely comprised elderly individuals within rural and remote areas – a demographic that benefitted considerably from a reduction in utility bills and access to a greater discretionary income.

The insight gained from this pilot allowed Dumfries and Galloway Housing Partnership to take forward a long-term plan of decarbonisation.

Project Title: Hebridean Heat Pumps

Project Organisation: Hebridean Housing Partnership

Technology Type(s): ASHP

Location(s): Multiple locations across Comhairle nan Eilean Siar

Grant Value: £708,611.04

Completion Date: April 2022

Project Headline: Replacing storage heating systems and inefficient electric boiler systems with new ASHP central heating systems.

Project Description:

This project installed ASHPs to 192 properties which were previously heated by storage heating or inefficient electric boilers. the archetypes of the properties were a mix of flats and houses.

Both previous heating systems had issues with affordability, efficiency and user controllability. Those tenants that had storage heating were on restricted meters, which made it difficult to switch suppliers. The non-heating tariff was also too expensive to be a viable option.

By installing clean heating, the energy consumption was reduced, as well as carbon emissions. Tenants were also given more control over their heating and their fuel bills were reduced in cost.

Project Title: Falkirk Council – Off-Gas Villages – Energy Efficiency Programme

Project Organisation: Falkirk Council

Technology Type(s): ASHP, Solar PV and Battery Storage

Location(s): Standburn, Torwood, South Alloa and Blackness, Falkirk Council

Grant Value: £298,273

Completion Date: November 202

Project Headline: Installation of ASHP, Solar PV and Battery storage into 28 properties in rural villages

Project Description:

This project installed clean heating and microgeneration to 28 properties in Standburn, Torwood, South Alloa and Blackness across Falkirk Council.

The properties, which were of mixed archetype, received an ASHP, solar PV and battery storage.

The project estimated that fuel bills were reduced by half for tenants and thermal comfort was significantly improved.

Project Title: Rural Stirling Off-gas Electrification of Heat

Project Organisation: Rural Stirling Housing Association

Technology Type(s): ASHP, Solar PV and Battery Storage

Location(s): Aberfoyle, Stirling Council

Grant Value: £486,357

Completion Date: July 2022

Project Headline: Providing clean heating to 30 properties in Aberfoyle

Project Description:

The project focused on renewable microgeneration generation and electrification of heat with a holistic whole energy systems approach. 30 social rented properties around Aberfoyle received various energy efficiency measures, which varied depending on the property size and archetype.

The low carbon solution replaced a range of inefficient heating systems including solid fuel (coal) back boilers, electric panel heaters and electric storage heaters. The project was successful in reducing energy consumptions, carbon emissions, energy bills for tenants as well as improving thermal comfort in the homes.

The project's aim was to address the problem of decarbonising heat in smaller, hard to treat domestic properties and accelerated the decarbonisation of heating in off gas properties.

Project Title: 107 Niddrie Road Project

Project Organisation: Southside Housing Association

Technology Type(s): ASHP

Location(s): Glasgow, Glasgow City Council

Grant Value: £128,617.64

Completion Date: July 2022

Project Headline: Retrofit of 8 tenement flats to Passive Haus (EnerPHit) standard

Project Description:

This project applied EnerPHit principles to the retrofit of 8 pre-1919 sandstone tenements in the south side of Glasgow.

All 8 flats were acquired by Southside Housing Association and provided a unique opportunity to progress a deep retrofit in pre-1919 tenements. The project aimed to assess the scalability and replicability and share lessons learned for Scotland's wider pre-1919 tenement stock.

The project saw the installation of insulation and air tightness measures alongside triple glazed windows. ASHPs were installed in the 4 lower story flats with the upper 4 flats remaining on gas, with the project collecting data about how they compare. Wastewater heat recovery systems were also installed to capture and recycle the heat in water from baths, showers and the kitchen sink alongside mechanical ventilation with heat recovery.

To learn wider lessons for tenement retrofit, the project was evaluated by a research partnership resourced by the Scottish Funding Council.

Project Title: Clydebank Housing Association - Queen's Quay District Heating Network Extension

Project Organisation: Clydebank Housing Association

Technology Type(s): District Heating Extension

Location(s): Clydebank, Glasgow City Council

Grant Value: £410,601

Completion Date: March 2024

Project Headline: The connection of 46 Social Houses on Dumbarton Road, Clydebank to the Queens Quay District Heating Network

Project Description:

This project was designed to directly tackle fuel poverty within the properties as well as increase tenancy sustainability. The properties previous storage heating system resulted in high energy bills with a number of tenants reporting that they choose not to use the system at all due the affordability.

The properties were connected to the district heating system set up for the Queen's Quay development. This district heating system creates clean heat from the River Clyde and will allow Clydebank HA to tackle fuel poverty and minimise the carbon footprint of properties connected to it with regards to heating regimes. Properties had previously undergone insulation works (Cavity, Loft, Solid Wall Insulation) prior to considering heating replacement.

This project aimed to tackle fuel poverty and positively impacted the wellbeing of tenants through being able to heat their homes throughout the day, providing both physical and mental health benefits.

Projects Funded Under Checkpoint 1 of the SHNZHF

Project Title: DGHP Cavity Wall Insulation

Project Organisation: Dumfries and Galloway Housing Partnership

Technology Type(s): CWI

Location(s): Multiple locations across Dumfries and Galloway Council including: Annan, Canonbie, Castle Douglas, Dalbeattie, Dumfries, Gretna, Kirkcudbright, Lockerbie, Moffat, Newton Stewart, Stranraer, Thornhill

Grant Value: £327,525

Completion Date: March 2023

Project Headline: This project involved installing Cavity Wall Insulation (CWI) across 397 properties in various locations across Dumfries and Galloway

Project Description:

The project involved installing CWI to 397 properties with a range of current heating sources. The installation of measures led to reductions on tenant's fuel bills. The project was designed to ensure those most likely to be in or at risk of fuel poverty and living in properties that are the least energy efficient were included. The tenant group comprises vulnerable and elderly individuals within rural and remote areas and were located within areas with high levels of deprivation.

The program formed Phase 1 of a longer term program designed to improve the fabric of Dumfries and Galloway Housing Partnership's housing stock and ready the properties for future clean heating solutions.

Project Title: Waverley HA EESSH Fabric Upgrades Programme

Project Organisation: Waverley Housing Association

Technology Type(s): CWI, FI, RI, Double Glazing, External Doors and LITU

Location(s): Edinburgh, Edinburgh City Council

Grant Value: £140,000

Completion Date: June 2022

Project Headline: Installation “fabric first” energy efficiency measures into 56 properties, enabling future investment in low carbon emission heating

Project Description:

The project involved the installation of fabric improvement measures to 56 properties in multiple areas within Edinburgh Council. The homes were of a varied archetype and so the measures installed varied between properties.

The fabric measures that were installed, dependent on need/ suitability per property, were: Energy efficient double glazing, external doors, CWI, UFI, Flat/sloping roof insulation and Loft insulation/loft insulation top-up.

These properties were targeted as they were among the least energy efficient from the organisation’s stock, with an EPC rating of E or F. These fabric measures improved the EPC rating, reduced energy bills for tenants and improved thermal comfort for the tenants in their homes.

Project Title: Aberdeenshire Council - Steps to Net Zero for Hard-to-Treat Properties

Project Organisation: Aberdeenshire Council

Technology Type(s): HHRSH, IWI, Solar PV

Location(s): Multiple locations across Aberdeenshire Council including: Aberchirder, Bridge of Marnoch, Fraserbugh, Huntly, Inverurie, Peterhead and Stonehaven.

Grant Value: £2,523,860

Completion Date: February 2023

Project Headline: Upgrading of 120 hard to treat properties with Internal Wall Insulation, High Retention Storage Heaters and Solar Panels

Project Description:

The project scaled up an existing Aberdeenshire Council program that involved carrying out works to void properties, comprising a mix of houses and flats. These are all hard-to-treat properties, typically with stone cladding making both External and Cavity Wall Insulation unsuitable. Therefore, Internal Wall Insulation was deemed the most appropriate solution for these properties, alongside other insulation measures as required and where applicable.

The properties included were all vacant properties owned by Aberdeenshire Council, in various locations across Aberdeenshire. Due to the disruption IWI could cause to tenants the decision was taken to install the IWI and appropriate complimentary measures in the void period between tenancies, maximising efficiencies in terms of installs.

The properties had old heating systems that included a mix of electric storage heating and oil and gas fired central heating. Energy efficiency measures installed primarily included internal wall insulation, alongside a mixture of other measures which depended on the particular property. These measures include the following: loft insulation, under-floor insulation room-in-the-roof insulation and double or secondary glazing.

High Heat Retention Storage Heaters and Solar PV were also installed alongside the energy efficiency measures wherever the existing heating system required replacement. The project aimed to provide a significant step towards meeting climate change goals in hard to treat properties, avoiding increases in household energy bills and disruption to tenants.

Project Title: Net Zero Heat Project, Kirkbank, Auchmithie

Project Organisation: Angus Housing Association

Technology Type(s): ASHP, Solar PV, Battery Storage and UFI

Location(s): Auchmithie, Scottish Borders Council

Grant Value: £550,149

Completion Date: May 2022

Project Headline: Providing Clean Heating and reduced energy bills to 36 rural properties in the Scottish borders

Project Description:

The project provided clean heating to 36 properties in Auchmithie, Scottish Borders. The properties received an ASHP, solar PV and battery storage technology to decarbonise the heat provision in these homes and bring further benefits to tenants in terms of utility bill savings. The properties were heated by inefficient, traditional storage heating systems and twin immersion dual hot water cylinders, which all tenants had said were expensive to run.

The project had been designed to ensure those most likely to be in or at risk of fuel poverty and living in properties that are the least energy efficient are included. The homes selected for intervention were failing the Energy Efficiency Standard for Social Housing (EESSH) and were located within a rural area; resulting in additional travel spend to allow householders to access vital amenities which further exacerbated the difficulties tenants faced in heating their homes. To ensure the newly installed heating systems perform as effectively as possible, underfloor insulation was also installed where required.

This project was the initial phase in Angus Housing Association's drive to contribute towards Scottish Government's fuel poverty and net zero targets. The insight gained from this pilot will allow them to take forward a long-term plan of decarbonisation, with tenant outcomes at the center of their considerations.

Project Title: BISF properties Upgrade: Newarthill & Newmains

Project Organisation: North Lanarkshire Council

Technology Type(s): EWI

Location(s): Newarthill and Newmains, North Lanarkshire

Grant Value: £275,500

Completion Date: March 2022

Project Headline: Installation of External Wall Insulation into 20 properties with poor energy ratings

Project Description:

This project aimed to improve energy efficiency measures in non-traditional semi-detached hard-to-treat British Iron and Steel Federation (BISF) properties. The project involved 20 properties receiving external wall insulation improving the u-value of the walls to 0.17, properties also benefitted from solar PV, not installed as part of the SHNZHF grant funding.

BISF properties are steel constructed 3-bedroom semi-detached house types with steel frames and steel sitting within the wall cavity, and plasterboard lining to the internal walls. The original roof finish was profiled asbestos cement which had already been replaced as part of previous works by the local authority.

The property type was selected as it was recognised as suffering from poor energy efficiency with EPC recorded as low as band E and original external wall values assessed as being between 1.48-1.68W/m2k. The properties were all heated by gas condensing boilers with individual TRVs on radiators and house thermostat.

As well as pre and post EPCs, the project involved tenant liaison to ensure tenants were most effectively using their heating systems in addition to receiving advice on their energy tariff and advice on preventing condensation based on the increased energy efficiency of the properties.

Project Title: Mackenzie Gardens' Zero Emission Heating Project

Project Organisation: Grampian Housing Association

Technology Type(s): Communal ASHP system, Solar PV, Battery Storage, CWI, LITU

Location(s): Turriff, Aberdeenshire

Grant Value: £298,557

Completion Date: August 2022

Project Headline: Project involved 23 properties through the connection to a communal Air Source Heat Pump system alongside the installation of solar photovoltaic panels and battery storage, and insulation.

Project Description:

This project involved the installation of a communal air source heat pump system to supply low carbon heat to 23 social housing homes in Turriff, Aberdeenshire. Additional Energy Conservation Measures (ECMs) were also installed as part of a PAS2035 retrofit program including Solar PV Panels, Battery Storage, CWI and LITU.

Solar panels were installed so solar energy can be stored (in battery storage) and used to reduce energy costs for tenants, with any excess energy been fed back into the grid or provisioned for use in other Grampian Housing Association housing stock nearby.

The installation sought to not only reduce carbon emission but to reduce tenants' energy bills. In addition to the ECMs installed, a dynamic metering and billing system and thermostatic heat controls were also installed.

The system was also designed with the potential for adding additional properties in the future, with the ASHP system designed to allow heat pump modules to be added.

Projects Funded Under Checkpoint 2 of the SHNZHF

Project Title: Cairn Housing Association – Whole House Retrofit

Project Organisation: Cairn Housing Association

Technology Type(s): ASHP, Solar PV and Battery Storage

Location(s): Wick, Highland Council

Grant Value: £92,813

Completion Date: November 2022

Project Headline: Whole house retrofit pathfinder of 2 homes in Wick

Project Description:

This project was as a pilot project for the organisation, which will act as a pathfinder for future projects to upgrade their housing stock. The project took the whole house retrofit approach and installed clean heating and energy efficiency measures to 2 homes in Wick, Scottish Highlands. These properties were built in the 1950s of traditional construction but had irregular cavity width with previously no wall insulation.

The measures included as ASHP, solar PV, battery storage, EWI, UFI, Roof Insulation, Triple glazed windows, external doors, MVHR. The houses were previously heated by a mix of storage heaters and panel heating, along with a hot water cylinder in a cupboard upstairs which provides hot water via immersion.

The aim of the whole house retrofit was to bring the properties to Enerphit standard.

Project Title: Communal Ground Source Heat Pump - Social Housing Net Zero Heat Fund

Project Organisation: Cairn Housing

Technology Type(s): Double Glazing, Upgraded Doors and Solar PV

Location(s): Blairgowrie, Perth and Kinross Council

Grant Value: £524,916

Completion Date: March 2024

Project Headline: Fabric First and microgeneration to 35 homes in Blairgowrie

Project Description:

The project aimed to provide clean heating, microgeneration and fabric first measures to 35 properties in Blarigowrie, Perth and Kinross. There were a mix of property archetypes in this project; 28 one bed flats, 4 one bed mid terrace bungalows, 2 one bed end terrace bungalows and 1 three bed semi-detached house.

The proposed technologies included a communal GSHP to provide clean heating, and double glazing and new external doors to provide energy savings measures, to all 35 properties. Additionally, solar PV were installed to provide microgeneration to the 6 bungalows.

There were some issues with the feasibility for the GSHP that were not discovered until after the project started, so it did not go ahead. However the fabric first measures and microgeneration were installed, which provided tenants with improved thermal comfort and a reduction of fuel bills.

Cairn Housing Association subsequently withdrew the clean heating element from the project, with the intention to come forward again at a future checkpoint with a feasible plan for providing these homes with clean heating.

Project Title: Installation of High Heat Retention Storage Heaters, Solar Panels and Battery Storage to Cliffview Court Arbroath and St Drostans Court Brechin

Project Organisation: Angus Council

Technology Type(s): HHRSH, Solar PV and Battery Storage

Location(s): Arbroath and Brechin, Angus Council

Grant Value: £212,326

Completion Date: November 2022

Project Headline: Installation of clean heating and microgeneration to 26 homes in Arbroath and Brechin

Project Description:

The properties were a mix of end and mid terraced bungalows in supported accommodation and were previously heated by inefficient electric storage heaters. The measures installed in this project included new high heat retention storage heaters, solar PV and battery storage to all properties.

The installation of new HHRSHs allowed for more control and usability of the technology for tenants. The upgraded heaters had smart controls that allowed for more accurate calculation of energy bills, and highly insulated cores which allowed heat to be released when required, thus saving energy and reducing energy bills.

By installing the upgraded heaters alongside solar PV and battery storage, this project ensured reductions in carbon emissions and reduction in fuel bills for the tenants, transforming these properties into zero carbon homes.

Projects Funded Under Checkpoint 3 of the SHNZHF

Project Title: ASHP Programme – 2022

Project Organisation: Berwickshire Housing Association

Technology Type(s): ASHP, Solar PV and Battery Storage

Location(s): Multiple locations, Scottish Borders Council

Grant Value: £756,204

Completion Date: March 2024

Project Headline: Clean heating and microgeneration to 109 properties in the Scottish Borders

Project Description:

This project installed clean heating and microgeneration to 109 properties across the Scottish Borders. All homes received ASHPs and those properties that did not already have Solar PV were given it where suitable depending on property archetype. The project was specifically designed to target tenants in rural areas who had inefficient or carbon-intensive existing heating systems, bringing the potential for energy bill savings while eliminating tenants' reliance on fossil fuels and electricity from the grid. A number of properties selected for inclusion in this project had existing solar PV panels which were connected to the ASHP technology which further improve outcomes for tenants in terms of reduced running costs, while bringing the properties closer to a net zero solution.

Berwickshire Housing Association developed insulation and airtightness strategies where required for the target addresses, ensuring that heat demand is sufficiently reduced in the properties to allow the heat pumps to work as efficiently as possible once installed.

Project Title: Decarbonisation Programme - Jedburgh and Newton St. Boswells

Project Organisation: Waverley Housing Association

Technology Type(s): ASHP, Solar PV, Battery Storage and UFI

Location(s): Jedburgh and Newton St Boswells, Scottish Borders Council

Grant Value: £450,001

Completion Date: March 2024

Project Headline: Installation of clean heating and microgeneration to 32 homes in the Scottish Borders

Project Description:

This project brought clean heating and microgeneration to 32 properties in Jedburgh and Newton St Boswells, in the Scottish Borders. All properties had ASHPs installed in combination with solar photovoltaic panels and battery storage technology where necessary in a number of properties including terraced, bungalows and four in a block housing archetypes.

The project targeted residents in Jedburgh and Newton St, Boswell who had inefficient or carbon intensive heating systems, bringing the potential for energy bill savings. Additional insulation measures were installed where required to achieve better energy efficiency. To maximise uptake, Waverley Housing Association proposed using the Q-Bot system for properties where underfloor insulation is recommended. Q-Bot is a robotically applied foam insulation system that reduces disruption and is particularly suitable for those tenants that are elderly and/or vulnerable.

Project Title: Hebridean 100

Project Organisation: Hebridean Housing Partnership (HHP)

Technology Type(s): ASHP

Location(s): Multiple locations across Comhairle nan Eilean Siar - Isle of Barra, Isle of Benbecula, Isle of Lewis, Isle of North Uist, Isle of South Uist, Stornoway

Grant Value: £750,000

Completion Date: March 2024

Project Headline: Project involved installing 106 ASHP systems into homes across the Western Isles

Project Description:

Homes were selected due to surveys indicating 48% of HHP's tenants were in fuel poverty when utilising storage heating as their main heating source. The inefficient storage heating systems in 106 houses and flats were replaced with new ASHP systems, with system controls allowing tenants more control over their electricity use.

In HHP's experience efficient storage heating systems have proven problematic, costly and have issues with affordability and controllability for tenants. ASHPs were identified as suitable heating systems as they provide affordable warmth to tenants as well as delivering environmental benefits through reduced carbon emissions.
Hebridean Housing Partnership have also simplified the installation and use of the ASHP systems to ensure tenants require minimal input when utilising the provided wireless controller to increase or decrease temperature at a given point in time with the system reverting to set temperatures at the end of each day. Each system control allows the tenant to see the exact amount of electricity used per year, per month and per week for both heating and hot water. This allows tenants to budget in advance which is beneficial for those on prepayment meters.

All installed ASHPs have been fitted with Wi-Fi adapters to allow for weekly, monthly and yearly monitoring of costs by the tenant and the association with consent. HHP have already installed over 1,000 ASHP systems with very high tenant satisfaction and continued this roll out with subsequent funding awards from the SHNZHF.

Project Title: Hebridean EWI

Project Organisation: Hebridean Housing Partnership (HHP)

Technology Type(s): EWI

Location(s): Multiple locations across Comhairle nan Eilean Siar - Isle of Barra, Isle of Benbecula, Isle of Lewis, Isle of North Uist, Isle of South Uist, Stornoway

Grant Value: £330,750

Completion Date: March 2024

Project Headline: Project involved installing EWI to 23 Swedish Timber and Scan system houses which are of single skin timber frame construction and classed as hard to treat properties

Project Description:

The properties selected under this project already had ASHPs installed as part of previous works funded by other project partners. The ASHPs were installed first to avoid damaging the new EWI system.

By installing EWI alongside the ASHPs, the insulation will help maximise the benefits of the upgraded clean heating systems, already installed. Alongside this, the upgraded fabric improvements will bring a new clean finish to the façade of the properties. This has not only greatly improved the u-values but the visual aspect of the properties. The installation of these measures will guarantee lower emissions and lower energy costs for tenants.

There are many similar timber frame houses throughout Scotland which are classed as hard to treat. This project aimed to create an exemplar project that could be replicated across the housing archetype.

Projects Funded Under Checkpoint 4 of the SHNZHF

Project Title: Dumbarton Road / Stone Repairs and Insulation

Project Organisation: Dalmuir Park Housing Association

Technology Type(s): EWI and IWI

Location(s): Dalmuir, West Dunbartonshire Council

Grant Value: £278,054

Completion Date: March 2024

Project Headline: Fabric First approach to 31 pre-1919 tenements in Dalmuir

Project Description:

This project provided fabric first energy efficiency measures to 31 flats in Dalmuir, which were flats in pre-1919 tenement blocks. All of the targeted properties were previously poorly insulated and consequently expensive to heat with EPC ratings of D. After installation of the measures, the aim was to achieve an EPC rating of B.

The measures which were installed included EWI and IWI. The entire building was enveloped and the insulation which also covered the close walls. The method of installation meant that the properties could be upgraded without the need for decanting tenants. The project was intended to reduce condensation, heat loss and CO2 emissions as well as reduce heating bills for tenants.

Project Title: BISF Properties Upgrade

Project Organisation: North Lanarkshire Council

Technology Type(s): EWI

Location(s): Multiple locations across North Lanarkshire Council

Grant Value: £2,242,200

Completion Date: February 2024

Project Headline: Fabric First and microgeneration to 138 hard to treat properties in North Lanarkshire

Project Description:

This project installed microgeneration and fabric first measures to 138 hard to treat properties across North Lanarkshire. The properties in this project are of the non-traditional British iron and steel federation (BISF) archetype, which are classed as hard to treat. The property type is recognised as suffering from poor energy efficiency with EPC recorded as low as band E and original external wall values assessed as being between 1.48-1.68W/m2k.

The grant funding was used to install EWI and solar panels to the properties. After installation measures the EPC rating rose to C.

The Council had in place Program Liaison Officers who visited tenants post installation to ensure that residents were aware of how to most effectively use their heating systems in addition to receiving their current energy tariff and the provision of advice on how to prevent condensation advice based on the increased energy efficiency of the properties.

Projects Funded Under Checkpoint 5 of the SHNZHF

Project Title: External Wall Insulation Upgrade 2022/23

Project Organisation: Shire Housing Association

Technology Type(s): EWI

Location(s): Bellsbank and Cumnock, East Ayrshire Council

Grant Value: £412,155.28

Completion Date: October 2023

Project Headline: Fabric first measures to 54 social rented homes in multi-tenure project in East Ayrshire

Project Description:

The project installed fabric first energy efficiency measures, in the form of EWI, to 54 socially rented homes across 21 4-in-block, multi tenure flats across East Ayrshire. The housing association accessed funding from the Energy Agency to fund the owner-occupied properties, allowing the full building to benefit from the EWI installation.

The EPCs of the properties varied slightly between bands D and E. The aim of the project was to bring the EPC to bands B and C.

The project applied PAS 2025 measures to achieve thermal efficiency and reduce tenant's heating bills significantly.

Project Title: Swedish Timber EWI Programme Dalry

Project Organisation: Cunninghame Housing Association

Technology Type(s): EWI

Location(s): Dalry, North Ayrshire Council

Grant Value: £1,016,563

Completion Date: January 2024

Project Headline: Fabric First approach delivers fuel savings to tenants in to non-traditional hard to treat properties in Dalry

Project Description:

This project delivered fabric first energy efficiency upgrades to 96 properties in Dalry, North Ayrshire. the properties of the project were of non-traditional construction, 95 of which were Swedish timber kit. The other 5 properties were of traditional construction.

The project installed EWI to these properties, which lowered tenant heating bills and providing readiness for future low carbon heating upgrades through a ‘fabric first’ approach.

The project brought the EPC of the properties up from band D to band C.

Project Title: Off-Gas Villages – Energy Efficiency Programme (Phase 2 Application)

Project Organisation: Falkirk Council

Technology Type(s): ASHP, Solar PV and Battery Storage

Location(s): Various locations across Falkirk Council

Grant Value: £975,975

Completion Date: March 2024

Project Headline: Clean heating and microgeneration for 100 homes in Falkirk

Project Description:

This project was phase 2 of Falkirk Council's off-gas villages energy efficiency project. This phase of the project installed clean heating and microgeneration to 100 properties across 9 villages in the Falkirk area. The properties varied in size and archetype.

Each property was fitted with an ASHP, solar PV and battery storage. This reduced the carbon emissions from these properties by 95% and reduced energy consumption from the grid. The microgeneration also reduced tenants fuel bills, taking them out of, or away from the risk of, fuel poverty and providing them with more thermal comfort and control of their heating systems.

Project Title: Triple Glazing Upgrade to North Lanarkshire Properties

Project Organisation: Lanarkshire Housing Association

Technology Type(s): Triple Glazed Windows

Location(s): Multiple locations across North Lanarkshire Council

Grant Value: £454,040

Completion Date: November 2023

Project Headline: Triple glazing for 111 homes across North Lanarkshire reduced fuel bills and improved tenant's thermal comfort

Project Description:

The project installed fabric first energy efficiency measures to 111 properties across North Lanarkshire. 102 of the properties were flats, and 9 were four-in-a-block cottages flats. All received new triple glazing.

The project upgraded the existing windows with a more energy efficient specification which improved thermal comfort for tenants and make their homes easier to heat, helping reduce energy demand and tenant's fuel bills. The project also had a positive impact on the EPC of the properties, bring them up from a band C to a band B.

Project Title: Osprey Housing Lofts and RIR 2022

Project Organisation: Osprey Housing Association

Technology Type(s): LTUI and RIRI

Location(s): Multiple locations across Aberdeen City, Aberdeenshire and Moray Councils

Grant Value: £120,732

Completion Date: March 2024

Project Headline: Fabric first measures to 306 properties across Aberdeenshire, Aberdeen City and Moray

Project Description:

This project installed fabric first energy efficiency measures to 306 properties of varying archetype, including flats, bungalows and houses and varying size, from 1 – 4 bedrooms. The project installed loft insulation top-ups for 297 of these, and room in roof insulation for 9.

Two thirds of these properties were early 2000s timber frame construction, with around 100-150mm of loft insulation in place. Topping up the existing loft insulation was the most straightforward way to increase the thermal efficiency of these properties.
The other third of the properties were older, of various construction types and, where appropriate, these had already had cavity wall insulation and benefitted from increasing the loft insulation or installing room in roof insulation.

Project Title: From Rationing to Rationality – the Introduction of Whole House Heating and Ventilation

Project Organisation: Lochalsh and Skye Housing Association

Technology Type(s): ASHP

Location(s): Skye and Lochalsh, Highland Council

Grant Value: £267,040

Completion Date: March 2024

Project Headline: Providing Clean Heating and reduced energy bills to 30 homes on the Isle of Skye

Project Description:

This project provided clean heating to 30 homes across the Isle of Skye, of varied archetype. The properties were previously heated with either inefficient storage heating, sold fuel heating and oil boilers. All properties had their heating systems replaced with ASHPs.

The aim of the project was to alleviate fuel poverty and improve comfort levels in tenant's homes. The project also aimed to improve the EPC of the properties from band D to band C.

Project Title: Hillcrest Homes Fuel Poverty Heating Upgrade Scheme

Project Organisation: Hillcrest Homes

Technology Type(s): HHRSH and Solar PV

Location(s): Arbroath in Angus; Dundee City in Dundee; Alyth, Blackford, Crieff in Perth & Kinross; and Newburgh in Fife

Grant Value: £1,709,847

Completion Date: March 2024

Project Headline: Clean heating and microgeneration to 466 homes across Dundee, Angus and Perth & Kinross

Project Description:

This project installed clean heating and microgeneration to 466 homes across multiple locations including Dundee, Arbroath, Newburgh, Crieff, Alyth and Blackford. The archetypes of the properties varied among different sizes of flats and houses. All properties received new Quantum HRRSH and where suitable, and solar PV was also installed.

The new measures allowed the tenants more control and flexibility over their heating, and reduced fuel bills and increased thermal comfort. It is anticipated that tenants will save on average £430 per year.

Project Title: ACHA Social Housing External Fabric Programme

Project Organisation: Argyll Community Housing Association

Technology Type(s): EWI

Location(s): Multiple Locations across Argyll and Bute Council - Bute, Cowal, Dunoon, Islay and Tiree

Grant Value: £1,092,750

Completion Date: April 2024

Project Headline: Project installed insulation measures, primarily external wall insulation (EWI) into 141 social rented properties across Argyll and Bute

Project Description:

The main bulk of these 141 properties are in Dunoon and included various archetypes including post war late 1950s dwellings. Other properties benefitting from these measures were located across Cowal and Bute and included properties on the islands of Islay and Tiree.

These properties had already received ASHPs in previous packages of works and the installation of EWI would therefore maximise the benefits of these systems and ensure heat is not lost through the fabric of the buildings.

This project intended to alleviate fuel poverty and deliver continued energy efficiency works to help tenants who are the most in need.

Projects Funded Under Checkpoint 6 of the SHNZHF

Project Title: High Heat Retention Storage Heaters, PV Arrays and Energy Storage to 4no. Sheltered Housing Complexes

Project Organisation: Angus Council

Technology Type(s): HHRSH, Solar PV and Battery Storage.

Location(s): Montrose, Forfar and Arborath, Angus Council

Grant Value: £783,851

Completion Date: March 2024

Project Headline: Clean heating and microgeneration to 106 homes across Angus

Project Description:

This project installed clean heating and microgeneration to 106 properties across 4 sheltered housing complexes. The project took place across Angus, in Montrose, Forfar and Arbroath.

The measures installed were HHRSH, solar PV and battery storage technology so that surplus energy generated by the PV arrays will be stored. This directly reduces grid demand and allows for energy harvesting and use on site when no energy is being produced by the PV arrays.

The project aimed to improve the EPCs of the properties from band D to band B. The project was designed to reduce tenants fuel bills and improve thermal comfort.

Project Title: Danderhall Net Zero Upgrades, Phase 1

Project Organisation: Midlothian Council

Technology Type(s): EWI, CWI and IWI

Location(s): Danderhall, Midlothian Council

Grant Value: £533,688

Completion Date: June 2024

Project Headline: Project delivered insulation upgrades as part of a whole house retrofit to 50 properties in the Danderhall area

Project Description:

Properties selected for this phase of the project received EWI, CWI or IWI depending on the property archetype and existing insulation measures in place. Properties also received other measures not funded by this grant including roof insulation and high efficiency windows and doors, depending on the property itself.

This whole house retrofit delivery approach was designed to ensure a wide range of measures were implemented alongside each other to reduce the home energy consumption and to improve the fabric of the home before future clean heating solutions. Now that the fabric of the building has been addressed, it has readied these properties for the potential connection to a future clean heating system, such as a district heating network.

This is Phase 1 of a two-part projects, Phase 2 was awarded in financial year 24/25.

Project Title: East Ayrshire Deep Retrofit Pathfinder

Project Organisation: East Ayrshire Council

Technology Type(s): PAS 2035 principles, EnerPhit retrofit and LETI Whole House Retrofit - including a mix of ASHP, HHRSHs, Solar PV, Battery Storage, Thermal Storage, EWI, CWI, UFI, RI

Location(s): Darvel, Kilmarnock and Rankinston, East Ayrshire Council

Grant Value: £534,976

Completion Date: March 2025

Project Headline: This 'Pathfinder' Project comprises of three separate approaches to deliver whole house retrofit in a single phase of works and to monitor outcomes

Project Description:

This project involves the following three strands:

Strand 1 – PAS 2035

Six flats in Kilmarnock have been identified to benefit from a whole house retrofit under the principles of PAS 2035 to minimise space heat demand and emissions. The flats are currently heated with mains gas boiler systems. Measures to be fitted include a mix of ASHPs, EWI, floor insulation, insulated roofing, solar PV, domestic hot water storage tank, battery storage and high retention storage heaters, where required.

Strand 2 – LETI

Eight homes (a mix of flats and houses) in Rankinston have been identified to benefit from a LETI whole house retrofit. Rankinston is an off-gas area with a mix of old electric storage heaters, of oil and solid fuel. Measure to be fitted include a mix of EWI or CWI (as appropriate), floor insulation, solar PV, solar thermal, domestic hot water storage tank, battery storage and ASHPs.

Strand 3 – EnerPhit

Four void flats in Darvel have been identified as ideal candidates for a retrofit to EnerPhit standard. The flats currently have gas central heating systems which will be replaced by ASHP alongside deep fabric improvements including insulation measures and microgeneration.

Monitoring

In all three areas, monitoring equipment will be installed, and the building performance will be monitored for a period of three years. East Ayrshire Council will not only compare pre and post install data to evaluate the effectiveness of the system installed but also compare the three approaches in terms of cost, effectiveness and practicality and deliverability for roll out on a wider scale.

Project Title: North Heathery Park Heat Pump Retrofit

Project Organisation: Hjaltland Housing Association

Technology Type(s): ASHP

Location(s): Gulberwick, Shetland Islands Council

Grant Value: £52,245.93

Completion Date: May 2023

Project Headline: This small scale project installed Air Source Heat Pumps and associated radiators to 8 properties in Gulberwick on the Shetland Islands

Project Description:

The properties included a mix of detached and semi-detached dwellings that were originally heated by inefficient and expensive electric boilers with immersion heaters. Tenants had reported the high cost of their expensive heating systems and supported the change to a more affordable, energy efficient heating system.

The project was designed to assist Hjaltland Housing Association with increasing the energy performance of these properties and make a significant social impact on tenants by alleviating fuel poverty by reducing energy bills through the installation of clean, efficient heating systems.

Meter readings were taken when the heating systems were changed so that the performance of the new heating systems can be monitored, and fuel bills compared. Tenants feedback will also be used to monitor the success of the project and inform future potential projects.

Project Title: Kingdom Fabric First Project

Project Organisation: Kingdom Housing Association

Technology Type(s): EWI, IWI, Roof Insulation, High Efficiency Windows and Doors, UFI

Location(s): Perth, Perth & Kinross Council

Grant Value: £1,144,370

Completion Date: April 2024

Project Headline: This project delivered Whole House Retrofit “Fabric First” measures to up to 86 social rented properties in Perth

Project Description:

The project involved properties receiving a full range of insulation measures including external wall insulation and or internal wall insulation where appropriate, roof insulation, high efficiency windows and doors and underfloor insulation. Project utilised whole house retrofit to ensure a wide range of measures were implemented together to reduce the tenant’s energy needs considerably, while also improving the fabric of the home and reducing energy bills, before a clean heating solution is considered in the future.

Properties will continue to be monitored to demonstrate the impact of the measures, including energy consumption data, technical monitoring and pre and post comparative analysis.

Project Title: High St / Russell St Area Regeneration

Project Organisation: Argyll Community Housing Association

Technology Type(s): Communal ASHP, Solar PV, Battery Storage, EWI, CWI, URI, LTIU, Triple Glazed Windows and Doors

Location(s): Rothesay, Isle of Bute, Argyll & Bute Council

Grant Value: £1,337,994.22

Completion Date: July 2024

Project Headline: Project enabled the regeneration of an area in Rothesay on the Isle of Bute to transform the energy efficiency and thermal performance of 3 buildings containing 20 social rented properties

Project Description:

Argyll Community Housing Association (ACHA) undertook this project to renovate three housing blocks, containing 20 properties in total with 9 void properties in Rothesay. This project aimed to change the perception of the blocks and the area, thus making the energy efficiency upgrades part of a wider area regeneration. The energy efficiency works improved the thermal performance of the buildings, upgraded the external environment and provided an exemplar within ACHA's housing stock.

The SHNZHF funded elements of the overall project included the following: ASHP, solar PV, battery storage, EWI, CWI, UFI, LTUI, triple glazing and external doors.

The project was envisioned to act as a catalyst for positive change and regeneration to this part of Rothesay and complemented a wider external wall insulation program.

Project Title: New Scone Sheltered Housing Heating Upgrade

Project Organisation: Hanover Housing Association

Technology Type(s): HHRSH, Solar PV, Battery Storage, EWI

Location(s): Scone, Perth & Kinross Council

Grant Value: £117,512

Completion Date: March 2024

Project Headline: This project involved energy efficiency upgrades to 25 social tenanted bungalows with very low EPC ratings due to lack of insulation and inefficient storage heaters

Project Description:

The project installed high heat retention storage heaters with battery storage and solar PV, alongside EWI and roof replacement. The social housing tenants in these properties are vulnerable elderly people in a rural location largely in fuel poverty, and the project provided a micro-renewable based solution for these tenants. The provision of solar PV and battery storage has the potential to provide a large portion of self-consumption for these tenants.

Hanover Housing Association previously subsidised the heating costs of these tenants due to the very poor performance of the building and the energy efficient approach was designed to dramatically reduce heating bills for tenants and contribute to alleviating fuel poverty.

The project aimed to provide a model which is sustainable and cost effective for rollout throughout Hanover Housing Association’s housing stock in Scotland.

Project Title: Prospecthill Cladding Project

Project Organisation: River Clyde Homes

Technology Type(s): EWI, Triple Glazed Windows

Location(s): Greenock, Inverclyde Council

Grant Value: £1,647,535

Completion Date: January 2025

Project Headline: This project involves installing a complete rainscreen cladding system incorporating external insulation and new triple glazed windows to improve 90 properties thermal efficiency

Project Description:

The works funded via the SHNZHF grant include the external insulation and new triple glazed windows to Prospecthill, a multi-story block in Greenock containing 90 flats. The project aims to achieve the AECB/LET Retrofit standard and achieve an energy demand of 40Kwh/pm2/pa for each property. The properties are currently heated by a biomass district heating scheme.

The project is envisioned to be the first of its kind within social housing in Scotland and learnings from the project will be offered to the sector more widely. The project aims to remove poor energy performance which is a driver for fuel poverty, aiming to lift the tenants out of fuel poverty, improve thermal comfort and reduce the properties carbon emissions.

Monitoring of the property will include monitoring of heat, temperature, Co2 and humidity. Combined these indicators will provide information on the improvements to tenants and support further learnings from the project.

Project Title: Connected Response - Installation of "Connected Response" devices installed to control space and water heating

Project Organisation: Wheatley Group

Technology Type(s): Connected Response – Smart Storage Heater Controls

Location(s): Glasgow, Glasgow City

Grant Value: £6,162,500

Completion Date: March 2024

Project Headline: Energy efficiency measures fitted to over 5,000 homes across Glasgow

Project Description:

The project's aim was to install fabric first energy efficiency measures to 5,800 socially rented properties across Glasgow. The energy efficiency technology used in the project was Connected Response. The Connected Response units are designed to improve the performance and control of electric storage space and water heating for households. The system provides ‘demand side management’ control of storage through programmable timing, internal dwelling temperature sensor and forecast weather compensation; to avoid energy waste, improve household comfort, reduce carbon and mitigate costs.

The project reduced energy consumption and fuel bills for tenants as well as increased user controllability and thermal comfort of their home.

Project Title: Net Zero Homes - Whole House Retrofit of Low Efficiency and High-Carbon Intensity Homes

Project Organisation: Wheatley Group

Technology Type(s): ASHP, Solar PV, Battery Storage

Location(s): Multiple locations across Dumfries & Galloway Council

Grant Value: £11,100,000

Completion Date: March 2024

Project Headline: Project involved a whole house retrofit to 250 low efficiency and high carbon intensity homes across Dumfries and Galloway

Project Description:

Properties were previously heated with oil, coal, or inefficient electric storage heaters. The measures installed varied according to the property and existing heating solution in place and consisted of a mixture of the following technologies: EWI, ASHPs, solar PV, battery storage and Connected Response technology.

The project aimed to improve the energy efficiency of properties and provide tenants savings on their fuel bills while reducing the energy demand of properties.

This formed Phase 1 of a project with Phase 2 continuing into financial year 2024/25.

Project Title: Pre 1919 - Tenements - Retrofit up to 60 pre-1919 Sandstone Tenement Flats with a view to achieving EPC B rating

Project Organisation: Wheatley Group

Technology Type(s): HHRSH, Double Glazing, IWI, RI, UFI

Location(s): Edinburgh, Edinburgh City Council

Grant Value: £1,024,800

Completion Date: March 2024

Project Headline: Project involved retrofitting 30 void pre-1919 tenement buildings to achieve an EPC 'B' rating using combined measures

Project Description:

This project targeted void properties to allow a deep retrofit compared to when tenants are in place.

The measures installed varied according to the individual property and existing heating solution in place with measures including:

- Improvement of existing windows with double glazing
- Improvement and treatment to walls/roof/floor with insulation
- Deployment of air tightness measures
- Installation of an appropriate clean heating system, primarily high heat retention storage heaters

This project aimed to identify a method for retrofitting pre-1919 tenements and allow these learnings to be deployed more widely.

Phase 2 of this project was awarded in financial year 2024/25 with roll out to more properties in Edinburgh and Glasgow City.

Projects Funded Under Checkpoint 7 of the SHNZHF

Project Title: Hebridean Zero Emissions Heating 2023

Project Organisation: Hebridean Housing Partnership

Technology Type(s): ASHP

Location(s): Stornoway, Isle of Lewis, Comhairle nan Eilean Siar

Grant Value: £800,000

Completion Date: March 2024

Project Headline: Project involved replacing 110 inefficient electric heating systems with new ASHP systems, with system controls allowing tenants more control over their energy use

Project Description:

Hebridean Housing Partnership installed ASHPs in 110 houses and flats in Stornoway, the isle of Lewis, in the Outer Hebrides. Surveys in 2017/18 identified 48% of HHP tenants were in fuel poverty with inefficient electrical heating identified as a main cause.

Each ASHP system control allows the tenant to see the exact amount of electricity used per year, per month and per week for both heating and hot water. This allows tenants to budget in advance which is beneficial for those on prepayment meters. All heat pumps were fitted with Wi-Fi adapters to allow for weekly, monthly and yearly monitoring of the costs by the tenant and HHP with consent.

This project is a continuation of a similar project funded by Social Housing Net Zero Heat Fund the previous financial year.

Project Title: Orkney Housing Association - Fabric First Upgrades

Project Organisation: Orkney Housing Association

Technology Type(s): Triple Glazing, High Insulation, LITU, Hot Water Cylinder Jackets

Location(s): Finstown, Rousay, Toab, Westray, Orkney Islands Council

Grant Value: £111,607

Completion Date: March 2024

Project Headline: This project installed energy efficiency measures in properties across the Orkney Islands

Project Description:

This project included measures installed to a range of properties including a mix of flats and houses across the Orkney Islands and measures installed included triple glazed windows, loft insulation, hot water cylinder jackets and high insulation where required. Fuel poverty is particularly high on the Orkney Islands due to longer heating seasons caused by the colder, wetter and windier climate, therefore improving energy efficiency measures will fundamentally improve the quality of life for households and alleviate fuel poverty.

All of these works will efficiently retain heat and significantly improve the thermal performance of the properties. All tenants have been offered a home energy check and visit, supported by Orkney Housing Association, and new EPCs will be produced for each property.

Project Title: Arlington Street

Project Organisation: West of Scotland Housing Association

Technology Type(s): Communal ASHP, Thermal Storage, Windows Replacement

Location(s): Glasgow, Glasgow City Council

Grant Value: £310,000

Completion Date: May 2024

Project Headline: This project included replacing current communal gas boilers with a communal ASHP system including thermal storage to maximise heat output and window replacement.

Project Description:

This project on Arlington Street in Glasgow is a sheltered housing complex for elderly people consisting of twenty five flats spread across three floors, which was previously heated by a communal gas-fired boiler plant in the ground floor.

A communal ASHP was deemed the most effective clean heating solution with individual Heat Interface Unit (HIU) for each flat and a backup electric boiler. The HIU allows tenants to control and be billed for their heating and hot water use rather than being billed for the buildings heating demand, which could exceed their personal use.

The communal ASHP has reduced the carbon footprint of the building and offers reduction in energy bills for tenants with the support of fabric improvements, including thermal glazed windows.

Project Title: Fife Housing Group - Insulation Programme 2023

Project Organisation: Fife Housing Group

Technology Type(s): EWI, CWI and LITU

Location(s): Dunfermline, Methil and Rosyth, Fife Council

Grant Value: £281,036

Completion Date: March 2024

Project Headline: Project involved energy efficiency measures to a number of non-traditional 'no fines' and empty cavity properties across Fife without any current wall insulation, adopting a fabric first approach

Project Description:

The project involved the installation of EWI and CWI to a pipeline of 'no fines' and empty cavity properties, as part of Fife Housing Group's long term strategy to improve the energy efficiency of their housing stock. Works were complete to the PAS2035 standard and will contribute to a rolling program of investment works.
This project involved three phases of works taking place across various properties in the Rosyth, Dunfermline and Methil areas of Fife, involving a range of housing archetypes.

Tenants will benefit from reduced energy consumption and reduced energy bills as many of these properties did not have any insulation measures installed prior to this project.

Project Title: 2023/24 Non Trad. Retrofit Pilot Project

Project Organisation: East Renfrewshire Council

Technology Type(s): CWI, EWI, Cold Roof Insulation

Location(s): Barrhead, East Renfrewshire Council

Grant Value: £218,060.21

Completion Date: March 2024

Project Headline: Pilot project undertaking Fabric First upgrades to 14 properties including a mix of end, semi and mid-terraced houses in the Barrhead area

Project Description:

This project included energy efficiency upgrades including a range of the following measures: cavity wall insulation, external wall insulation, cold roof insulation and other measures funded by the local authority themselves. These other measures included roof works, ventilation measures and solar PV and battery storage.
The works were carried out in accordance with BSI PAS 2030:2019 – Specification for the installation of efficiency measures in existing dwellings and PAS 2035:2019 – Retrofitting dwellings for improved energy efficiency.

The works have made these properties more energy efficient and will result in a reduction of energy consumption for the tenants. The insulation will minimise heat loss with solar PV and battery storage offsetting electricity consumption and carbon emissions. The project aimed to improve the properties' EPC banding from EPC C and D to EPC band B.

Project Title: Pier View Tiree Energy Efficiency Project

Project Organisation: West Highland Housing Association

Technology Type(s): ASHP, Solar PV, Battery Storage, Mechanical Ventilation with Heat Recovery, IWI, Loft Insulation, Windows & Door Replacement

Location(s): Tiree, Argyll & Bute Council

Grant Value: £1,055,296

Completion Date: April 2024

Project Headline: Project involved whole house retrofit to 16 semi-detached timber frame off-gas properties in Scarinish on the Isle of Tiree

Project Description:

Properties were in receipt of a full suite of retrofit measures including replacing the current inefficient storage heating, which was expensive to run, particularly on a rural island location where weather has significant impact on energy use. The old heating system was replaced with ASHPs, aided by solar PV panels and integrated electric battery storage installed to provide zero carbon electricity to the dwellings, improving carbon performance and sustainability, and reducing energy costs.

Fabric first measures were installed including internal wall insulation, loft top up insulation, replacing windows and external doors, and improving thermal bridging performance and air tightness levels to reduce space heating demands and energy costs.

The combination aimed to take the houses from Band D to Band A EPC Rating. A post commissioning monitoring and evaluation assessment is being conducted to collect and analyse information on the effectiveness of the energy efficiency improvement measures and provide data that can inform future energy efficiency projects and be shared with other organisations. It is hoped that this work would help develop an archetype solution for the social rented sector and can be applied to WHHA’s other rural stock with similar issues.

Projects Funded Under Checkpoint 8 of the SHNZHF

Project Title: Smith Street Way Pilot

Project Organisation: Loreburn Housing Association

Technology Type(s): ASHP, Solar PV, Battery Storage, Triple Glazed Windows, Door Upgrades, Loft and Ceiling Insulation, Mechanical Ventilation Heat Recovery

Location(s): Beattock, Dumfries and Galloway Council

Grant Value: £402,107.19

Completion Date: March 2024

Project Headline: Project involved retrofitting 4 properties using different approaches to EPC Band B to evaluate and compare the measures involved

Project Description:

This pilot project focused on achieving the best value for money in terms of retrofit measures with an aim to produce a viable strategy for Loreburn Housing Association's entire building stock with timber frame archetypes.

This involved retrofitting 2 properties to an EPC Band B satisfying the requirements of EESSH2 (the previous Energy Efficiency Standard for Social Housing Providers) and taking 2 properties to the AECB Carbon Lite standard, also to attain an EPC Band B. The works were carried out on two semi-detached houses and two semi-detached bungalows. The project aimed to also reduce the energy demand of properties and reduce tenants' energy bills.

The measures to achieve EESSH2 involved ASHPs, triple glazed windows and upgraded doors, solar PV, battery storage, loft and ceiling insulation and improved air tightness. The measures to achieve AECB standard included ASHPs with mechanical ventilation heat recovery, internal wall insulation, triple glazed windows and upgraded doors, solar PV and battery storage and improved air tightness.

The project included monitoring via environmental sensors to collate data of temperature, humidity and CO2. The monitoring is continuing following the successful completion of the project and will also be used to identify tenants' experience of the technology and upgrades.

Project Title: Hawdene Zero-Emission Heating and Solar PV Energy Efficiency Project

Project Organisation: Eildon Housing Association

Technology Type(s): ASHP, Solar PV and Battery Storage

Location(s): Broughton, Scottish Borders Council

Grant Value: £521,021

Completion Date: March 2024

Project Headline: Project involved the installation of ASHP, solar PV and battery storage into 31 properties, primarily inhabited by elderly tenants experiencing fuel poverty

Project Description:

All 31 properties benefited from the installation of these technologies which replaced inefficient electric storage heaters that were contributing to fuel poverty and poor carbon emissions. The tenants were primarily elderly in a rural area, experiencing fuel poverty.

The properties already had two types of insulation installed: cavity wall insulation and 270mm of loft insulation which helped to mitigate the transmission of heat through the walls of the property and through the roof. The ASHP and solar PV were effectively complimented by the battery storage to maximise fuel bill savings and provide an estimated 82% decrease in annual carbon emissions.

The project emphasised a tenant centered approach, incorporating an Affordable Warmth and Heat Impact Evaluation Assessment and intensive consumer engagement. Eildon HA will continue to monitor and actively respond to the specific needs and behaviours of the tenant's heat usage, district heating effects and behavioural responses to tariff changes.

Project Title: Houston Place Whole House Retrofit

Project Organisation: Renfrewshire Council

Technology Type(s): ASHP, Solar PV, EWI, Double Glazing, External Doors, LITU, MVHR and Air Tightness Measures

Location(s): Johnstone, Renfrewshire Council

Grant Value: £254,015

Completion Date: July 2025

Project Headline: Whole House AECB Carbonlife Retrofit to 8 terraced properties in Johnstone, Renfrewshire

Project Description:

This project will take a whole house retrofit approach to 8 terraced properties in Johnstone, Renfrewshire. It will install lean heating and energy efficiency measures to the aim of the AECB Carbonlite retrofit standard. All properties currently have a combi gas boiler and an EPC of D.

With this funding, each property will receive an ASHP, solar PV and diverter which will ensure that no energy from the solar PV will be wasted, and instead will heat the water cylinder. Additionally, every property will receive EWI, MVHR, double glazing, external doors, air tightness measures, and loft insulation top up.

The project will bring the properties from EPC band D to A and will save tenants up to an estimated £400 per annum on their fuel bills.

Project Title: Cluny Court Net Zero Upgrades

Project Organisation: Cairn Housing Group

Technology Type(s): HHRSH and Solar PV

Location(s): Blairegowrie, Perth and Kinross Council

Grant Value: £333,598

Completion Date: March 2025

Project Headline: Clean Heating and reduced fuel bills for 35 homes in Blairgowrie

Project Description:

This project will install clean heating to 35 properties in Cluny Court, Blairgowrie. The archetypes of the properties are varied, there are 6 terraced bungalows and 29 flats of varying size. The properties have previously benefited from Energy Efficiency measures such as double glazing, new external doors, cavity wall insulation and loft insulation where applicable.

This project will upgrade the existing inefficient storage heaters with new high heat retention Thermastore storage heaters with an improved user interface for improved user control. In addition, the properties received solar PV.
The project aims to bring all properties to an EPC band B and will save the tenants and estimated £1000 per annum on energy bills.

Project Title: Murkle Terrace and Towerhill Road Net Zero Upgrades

Project Organisation: Cairn Housing Group

Technology Type(s): HHRSH and Solar PV

Location(s): Thurso, Highland Council

Grant Value: £397,307

Completion Date: March 2025

Project Headline: Clean Heating and reduced fuel bills for 35 homes in Thurso

Project Description:

This project will install clean heating to 35 properties in Murkle Terrace, Thurso in the Scottish Highlands. The properties are flat of varying size, arranged in blocks of 6. They have previously benefited from energy efficiency measures such as double glazing, external wall insulation and loft insulation where applicable.

This project will upgrade the existing inefficient storage heaters with new high heat retention Thermastore storage heaters with an improved user interface for the tenants. They will also receive solar PV. The project aims to bring all properties to an EPC band B and will save the tenants and estimated £1000 per annum on energy bills.

Project Title: Net Zero for Hard to Treat Homes

Project Organisation: Aberdeenshire Council

Technology Type(s): MVHR, IWI, FI, Air Tightness Measures, Where appropriate to the archetype: LITU, Double Glazing, HHRSH, RIRI and Solar PV

Location(s): Multiple Locations across Aberdeenshire Council – Aberchider, Bridge of Marnoch, Fraserburgh, Huntly, Inverurie, Peterhead and Stonehaven

Grant Value: £2,442,129

Completion Date: June 2025

Project Headline: Whole house retrofit to 108 void hard to treat properties in Aberdeenshire.

Project Description:

This project will take a whole house retrofit approach to 108 void properties of mixed archetype in Aberdeenshire. These will be a mix of Urban, Rural and Remote Rural. Most, if not all, of the properties have a stone construction, making External and Cavity Wall Insulation unfeasible. Internal Wall Insulation is therefore the best way forward but requires the property to be empty. Additionally, each property will along with this, Mechanical Ventilation with Heat Recovery, Floor Insulation and Airtightness work will make up the core work present in all properties.

Following, depending on the archetype, there are a number of other measures which will be installed; Loft Insulation Top-Up, Room-in-the-Roof Insulation, Double or Secondary glazing and High Heat Retention Storage Heaters. Where High Heat Retention Storage Heaters are installed, Solar PV and Solar diverters.

This project aims to bring the EPC of these properties from an average D to A. It will also save tenants up to an estimated £2000 per annum on their fuel bills.

Project Title: Hebridean ASHP 16

Project Organisation: Hebridean Housing Partnership

Technology Type(s): ASHP

Location(s): Stornoway, Isle of Lewis, Comhairle nan Eilean siar

Grant Value: £150,000

Completion Date: March 2024

Project Headline: Project involved replacing 16 inefficient electric heating systems with new ASHP systems, with system control allowing tenants more control over electricity use

Project Description:

All properties are block cavity construction bungalows in Stornoway on the isle of Lewis. Hebridean Housing Partnership have been installing ASHP systems since 2012 and have vast experience in the utilisation of these in their social housing stock. The houses already had bead cavity insulation, full double glazing and 250mm plus of loft insulation installed.

Over the years HHP have simplified the installation and use of the system to ensure tenants only require minimal input using the provided wireless controller to increase or decrease temperature at a given point in time with the system reverting to set temperatures at the end of each day.

Each system control allows the tenant to see the exact amount of electricity used per year, per month and per week for both heating and hot water. This allows tenants to budget in advance which is beneficial for those on prepayment meters. All heat pumps will be fitted with Wi-Fi adapters to allow for weekly, monthly and yearly monitoring of costs by tenant and by HHP with consent.

This project is a continuation of a similar project funded by Social Housing Net Zero Heat Fund the previous financial year.

Project Title: Net Zero Fund October 2023

Project Organisation: Orkney Housing Association

Technology Type(s): Triple Glazed Windows, High Insulated Doors, LITU and Hot Water Cylinder Jackets

Location(s): Kirkwall, St Margarets Hope, Orkney Islands Council

Grant Value: £77,290

Completion Date: March 2024

Project Headline: Project involved energy efficiency upgrades to 19 properties across the Orkney Islands

Project Description:

The 19 properties were located across two of Orkney Housing Association's schemes that included some of the most remote areas of their estate. The properties are a mix of housing types and were completed in the late 1980s/early 1990s and are of an age and time of construction where the fabric components being addressed are inefficient in terms of energy performance.

The upgraded fabric components included high-energy efficiency triple glazed windows, replacement high insulated doors, loft insulation top ups and hot water cylinder jackets. These measures aimed to greatly improve the building performance and the tenant's experience of living in the properties.

All of these works aimed to efficiently retain heat and significantly improve the thermal performance of the properties. All tenants were offered a home energy check and visit, supported by Orkney Housing Association's team, and new EPCs will be produced for each property.

Project Title: Forth ASHPs and LTUs

Project Organisation: Melville Housing Association

Technology Type(s): ASHP and LITU

Location(s): Forth, South Lanarkshire Council

Grant Value: £92,252.10

Completion Date: March 2024

Project Headline: Clean heating and fabric measures installed to 13 homes in South Lanarkshire to tackle fuel poverty

Project Description:

This project comprised of the installation of ASHPs and LITUs across 13 properties in Forth, a rural area in South Lanarkshire. The target addresses were previously heated by inefficient and cost ineffective heating systems – either electric wet or oil – meaning that the installation of zero emission heating systems will result in reduced energy bills for tenants as well as a reduction in carbon emissions.

The properties were specifically selected due to their propensity for fuel poverty. The area is in the most deprived 20% in Scotland, with challenges relating to income and employment.

The properties were already well insulated, with external insulation having been installed through previous programs. As such, they were highly thermally efficient and ideally suited to benefit from zero emissions heating. LTUIs will be installed to ensure the heat demand of the properties is as low as possible prior to the installation of new heating systems.

Project Title: KHA Pleasance Road Renewable Heat

Project Organisation: Kingdom Housing Association

Technology Type(s): ASHP, Solar PV, Battery Storage, Triple Glazed Windows, LITU

Location(s): Dunfermline, Fife Council

Grant Value: £88,696

Completion Date: March 2024

Project Headline: Project involved the installation of ASHPs, solar PV and battery storage to 6 properties in Dunfermline

Project Description:

The properties are all two-bed, two-story terraced houses of timber frame construction constructed in the 1990s. The properties were previously heated by inefficient electric storage heaters which were replaced with ASHP systems alongside solar PV, battery storage, triple glazed windows and loft insulation. The properties are all the same layouts which simplified the installation process and therefore allowing the same measures to be installed in each home.

The installation of the ASHPs, solar PV and batteries provide a renewable and stable energy supply for tenants allowing cost savings on energy bills. Fabric upgrades including the installation of new windows and loft insulation further improved the overall energy efficiency of the building fabric thereby reducing heat loss allowing for optimal performance of a low temperature ASHP heating system.

This project enabled a whole house approach to retrofit providing the most impactful way to provide carbon and cost savings rather than implementing upgrades over a phased approach.

Project Title: Smart Storage Heating Retrofit Project

Project Organisation: Trust Housing Association

Technology Type(s): Connected Response

Location(s): Multiple Councils across Scotland: Argyll and Bute, Dumfries and Galloway, East Dunbartonshire, East Renfrewshire, Fife, Glasgow city, Highland, North Ayrshire, South Ayrshire, East Ayrshire, Scottish Borders, South Lanarkshire, West Dunbartonshire, Western Isles

Grant Value: £244,090

Completion Date: March 2025

Project Headline: Upgrading existing Electric Storage Heaters to improve energy efficiency in 345 homes across Scotland.

Project Description:

The project involves upgrading existing electric storage heaters to improve energy efficiency in 345 homes across Scotland. The project involves installing Connected Response HeatSage technology into each flat which remotely controls the charging of existing heaters using local weather forecasts to determine the most suitable charging times, increasing on colder days and reducing on milder days, moving the charge closer to tenants' needs. It can also be customised to set specific temperatures in different flats if required to take account of property size, potential solar gain and tenants' individual health needs. By re-purposing the existing heating and hot water systems and aligning charging with renewable energy the project will turn the existing storage heaters into zero emission systems.

The project has been designed to ensure those most likely to be in or at risk of fuel poverty and living in properties that are the least energy efficient are included. The homes selected for intervention were failing the previous Energy Efficiency Standard for Social Housing (EESSH) and were located within a rural area; resulting in additional travel spend to allow householders to access vital amenities which further exacerbated the difficulties tenants faced in heating their homes.

Project Title: Mill Place, Thankerton: Energy Efficiency Works

Project Organisation: Clydesdale Housing Association

Technology Type(s): ASHP, HHRSH, Solar PV, Battery Storage and Allume Solshare

Location(s): Thankerton, South Lanarkshire Council

Grant Value: £239,475

Completion Date: March 2024

Project Headline: Clean heating and microgeneration installed to 22 homes in Thankerton, South Lanarkshire

Project Description:

This project installed clean heating and micro generation of electricity to 22 properties in Thankerton, South Lanarkshire. The properties were a mix of archetype, both flats and houses, of different sizes. The measures installed depended on the archetype of the properties, which were previously heated with old style storage heaters.

The houses received ASHPs and solar PV with a dual inverter that allowed the storage of the electricity into an installed 3kw battery. On the flatted properties of the development Solar PV with Allume solshare was also installed enabling the sharing of solar energy from a single rooftop solar system amongst multiple dwellings within the same building. This micro generation was coupled with the Elnur Smart high heat retention storage heaters. The smart Elnur solar high heat retention storage heater allows the use of energy from the solar panels to reduce heating costs, when there's not enough renewable energy production, it uses cheaper off-peak power to charge and top up the demand. The flatted dwellings did not receive a battery installed as the HHRSH acts as a battery. The measures that were installed will achieve up to a 60% saving on the energy costs for the tenants and future proof the assets for any future government driven targets for energy efficiency in social housing.

Projects Funded Under Checkpoint 9 of the SHNZHF

Project Title: B and C Listed Double Glazing and Insulation Works

Project Organisation: Yorkhill Housing Association

Technology Type(s): Double Glazing Windows, LITU and Internal and External Door Draft Proofing

Location(s): Glasgow, Glasgow City Council

Grant Value: £364,454.37

Completion Date: March 2025

Project Headline: Fabric First retrofit of 37 listed pre-1919 sandstone tenements in Glasgow

Project Description:

This project will provide fabric first energy efficiency measures to 38 pre 1919 sandstone tenements in Yorkhill, Glasgow. All of the properties in this project are listed: 24 are B-listed and 13 are C-listed.

Each property will receive timber framed double glazed windows which will comply with Glasgow City Council's planning permission conditions which took Yorkhill Housing Association 8 years to achieve. Window upgrades will retain the traditional features of the listed buildings while reducing heat loss.

Loft insulation top-ups will be installed alongside draught proofing to internal and external doors to further minimise heat loss.

The installation of these measures will save tenants on energy bills, alleviating fuel poverty and providing thermal comfort for tenants as the properties currently have single glazed windows due the planning restrictions.

Project Title: Internal Cavity Wall Insulation Programme

Project Organisation: Williamsburgh Housing Association

Technology Type(s): IWI, UFI, LITU

Location(s): Paisley, East Renfrewshire Council

Grant Value: £59,700

Completion Date: March 2025

Project Headline: Project to install Internal Wall Insulation to 30 pre-1919 tenement properties in Paisley

Project Description:

Properties consist of 30 flats in sandstone tenement properties. Two of the flats on the ground floor and all of the flats on the top floors will receive secondary fabric measures which include underfloor insulation for the ground floor and loft insulation top-ups for the top floor.

The installation of these measures is based on a recent pilot project which saw energy use reduce from 220 KWh/m2/year to 168 KWh/m2/year – demonstrating the benefits in relation to energy consumption by installing the measures.

A post commissioning monitoring and evaluation assessment will be conducted on a sample selection of properties to collect and analyse information on fuel usage and the effectiveness of the energy efficiency improvement measures. The data will be used to inform future energy efficiency projects within this stock archetype.

Project Title: Hill Road Net Zero Heat Project

Project Organisation: West of Scotland Housing Association

Technology Type(s): ASHP, Solar PV and Battery Storage

Location(s): Cumbernauld, North Lanarkshire Council

Grant Value: £569,665

Completion Date: March 2025

Project Headline: Project installing ASHPs, solar PV and battery storage to 36 sheltered housing properties in Cumbernauld

Project Description:

The project includes a mix of single storey, semi-detached and terraced bungalows across a sheltered housing site built in 1993. Tenants are primarily over the age of 60 or living with a disability. The majority of tenants are experiencing fuel poverty and struggling to heat their homes.

The properties currently have expensive to run storage heaters and will benefit from clean heating via ASHPs for each individual property. The project will install solar PV panels and battery storage, which will enable the generation of zero carbon electricity to the properties, reducing the amount of electricity that needs to be imported from the grid, therefore lowering energy bills and reducing carbon emissions.

Properties already benefit from cavity wall insulation and loft insulation, all up the required standard. In addition, all properties are fully double glazed (with current windows installed in 2018) and have low energy lighting fitted across all fixed outlets. This makes these properties perfectly primed to install clean heating and maximise these benefits.

The project will include a wraparound package of support including energy and tariff advice designed to reassure tenants and ensure they are able to operate their new systems and optimise their overall efficiency.

Project Title: Hebridean EWI Plasterfield

Project Organisation: Hebridean Housing Partnership (HHP)

Technology Type(s): EWI

Location(s): Plasterfield, Isle of Lewis, Comhairle nan Eilean Siar

Grant Value: £367,500

Completion Date: March 2025

Project Headline: Project involving installation of external wall insulation into 30 detached properties in Plasterfield on the Isle of Lewis

Project Description:

All properties are dense concrete block cavity construction and were built in 1948, there are known issues with these properties due to the construction restricting the ability to remove condensation. Due to this, external wall insulation has been deemed the most suitable form of insulation.

The project aims to contribute to reductions in fuel bills, reduce the energy demand of the properties, reduce carbon emissions and improve tenants' comfort, health and wellbeing.

As part of a separate parcel of works, Hebridean Housing Partnership will replace the existing heating with ASHPs and provide additional ventilation systems controlled by relative humidity controls to ensure improved air quality.

Project Title: Kelvin Court, Kirkintilloch, Energy Efficiency Retrofit

Project Organisation: Hanover Housing Association

Technology Type(s): HHRSH, EWI, Roof Solar PV with Allume Solshare, Battery Storage, Triple Glazed Windows

Location(s): Kirkintilloch, East Dunbartonshire Council

Grant Value: £537,977

Completion Date: April 2025

Project Headline: Project involving range of energy efficiency measures installed to 35 sheltered housing flats in Kirkintilloch

Project Description:

Kelvin Court properties will benefit from various measures including EWI, roof solar PV via Allume Solshare, battery storage, Elnur high heat retention storage heaters and triple glazed windows.

The building envelope will be upgraded with EWI and triple glazed windows to minimise heat loss, enhance insulation and improve thermal comfort following PAS 2035 fabric first methodology. The installation of Allume Solsare will harness renewable energy, reducing reliance from the grid and distributing microgeneration to individual dwellings from a communal roof, with excess solar energy being stored in the battery storage systems for later use at off peak times. Updated storage heaters will integrate with the solar PV for precise temperature control and energy management.

The deep retrofit project at Kelvin Court has the potential to significantly alleviate fuel poverty for the tenants within the 35 flats by reducing energy consumption, generating renewable energy, improving thermal comfort, and lowering fuel bills. Calculations indicate that up to 60% saving on tenant energy cost will be achieved post retrofit.

Project Title: Sandstone Tenement Archetype Solution

Project Organisation: Wheatley Homes

Technology Type(s): IWI, LI, UFI and HHRSH

Location(s): Multiple locations across Edinburgh City Council and Glasgow City Council

Grant Value: £960,000

Completion Date: March 2025

Project Headline: Whole house fabric first retrofit approach to 48 sandstone tenement flats in Glasgow and Edinburgh

Project Description:

The project is targeted at improving 48 sandstone tenements flats; focusing on full fabric insulation using solutions specifically tailored for this archetype. Works will be carried out at 'void' stage. This will allow multiple applicable measures to be installed.

Glasgow and Edinburgh have around 146,000 pre-1919 sandstone tenements. This archetype is one of the most challenging from a scalable retrofit and decarbonisation perspective because of their age, building materials, condition, listed status and multiple ownerships in a block.

The proposals cover sandstone tenements in Edinburgh and Glasgow, using a successful 'menu of measures' approach Wheatley Group have deployed from a previous project. This project resulted in achieving EPC 'B', from a typical starting point of 'D'. Space heating energy demand as low as 44kWh/m2 has been achieved in one case, with typical levels of 70kWhm2, from an average starting position around 137kWh/m2. This project is expected to achieve similar results.

Project Title: Rural Net Zero House Type – Deep Retrofit

Project Organisation: Wheatley Group – Wheatley Homes South

Technology Type(s): ASHP, Solar PV, Battery Storage, EWI

Location(s): Multiple locations across Dumfries and Galloway Council

Grant Value: £3,156,344

Completion Date: March 2025

Project Headline: This project will improve 116 homes to Net Zero Deep Retrofit standard through a combination of measures to low energy efficiency 'house' type properties in Dumfries and Galloway

Project Description:

Measures include ASHPs, solar PV, battery storage and EWI, depending on the individual property's requirements, with the expectation to lift all properties to an EPC 'A'. Properties are currently heated through oil or coal systems and are a mix of conventional 2 storey or bungalow standard brick construction house type. Once the measures are installed the homes will be fully net zero.

Once upgraded the properties will have a typical space heating consumption of 70kWh/m2/yr and deliver an expected average saving per household, having had all works completed, to be an average cost saving of £987 per dwelling. Tenants will be offered a full 'wrap around' service ensuring they are provided with support and advice on their new technology and tariffs.

This project is the next phase of a previously successfully supported project.

Project Title: Danderhall Net Zero Upgrades, Phase 2

Project Organisation: Midlothian Council

Technology Type(s): EWI, CWI, IWI

Location(s): Danderhall, Midlothian Council

Grant Value: £825,439

Completion Date: March 2025

Project Headline: Project involving energy efficiency insulation upgrades to 130 properties in Danderhall

Project Description:

119 properties will receive external wall insulation and cavity wall insulation, with internal wall insulation and cavity wall insulation installed to 11 properties. The majority of properties were built between 1950-1963 across a number of archetypes including bungalows, terraced housing, flats and 4-in-a-block.

Energy efficiency will be improved in the properties to reduce energy demand in the homes and futureproof homes to be fit for the transition from mains gas to low-carbon heating systems, principally through the planned extension of Shawfair district heating network.

This project is Phase 2 of a project funded in financial year 2023/24, with successful completion in June 2024.

Project Title: Arbroath Retrofit Project

Project Organisation: Hillcrest Homes

Technology Type(s): ASHP, EWI, Solar PV and Battery Storage, Double Glazing and External Doors

Location(s): Arbroath, Angus Council

Grant Value: £682,353

Completion Date: March 2025

Project Headline: Whole house retrofit pilot scheme in Arbroath brings 23 homes out of fuel poverty

Project Description:

This project will take a whole house retrofit approach to 22 mid and end terraced houses in Arbroath, Angus. The properties are of solid wall construction and currently have gas central heating. The project is a proof-of-concept pilot scheme to further the Net Zero plans of the Housing Association and will utilise the PAS2035 framework and standard.

Every property will receive clean heating in the form of ASHP heating system with radiators and hot water cylinders, and microgeneration in the form of solar PV and battery storage. Additionally, energy efficiency measures will be utilised to maximise the cost savings to tenants, including EWI, double glazing and new external doors.
The homes in the project were chosen for this pilot scheme as they are in one of the most deprived areas of Scotland. It will save tenants an estimated £1000 per year on fuel bills. The project will also bring the properties from an EPC C to B.

Project Title: 2024 NZH Project

Project Organisation: Waverley Housing

Technology Type(s): ASHP, Solar PV, Battery storage and HHRSH

Location(s): Galashields, Hawick, Kelso, St Boswells and Earlston; Scottish Borders Council

Grant Value: £210,649

Completion Date: March 2025

Project Headline: Tackling fuel poverty across the Scottish Borders with clean heating and microgeneration

Project Description:

This project will deliver upgrades to 23 properties. Measures differ based on archetype but most of the homes are post WWII construction. Seven properties will receive ASHPs, Solar PV and Battery storage and two will receive ASHPs and solar PV only. Fourteen properties will receive high heat retention storage heaters plus HeatSage. which improves the efficiency of existing storage heaters.

The homes were chosen for the project as the tenants have high energy bills due to the age or type of heating system currently installed, meaning all the homes are either living in, or at risk of falling into, fuel poverty. The properties have also already benefited from Energy Efficiency measures such as wall insulation, double glazing and loft insulation through other funding. This will maximise the benefits for the tenants and increase the carbon and financial savings. The project will give tenants an estimated annual saving of £500 and bring all homes to an EPC of C, from a mix of D, E and F.

Project Title: Fabric First Retrofit to Timber Kit

Project Organisation: Hjaltland Housing Association

Technology Type(s): EWI, UFI, External doors, MVHR

Location(s): Virkie, Shetland Islands Council

Grant Value: £92,172

Completion Date: March 2025

Project Headline: Project involving fabric first retrofit to 4 detached bungalow properties in Shetland

Project Description:

This project is based on a successful pilot the housing association undertook to other similar properties, confirming the fabric first approach improves air tightness and results in less heating energy being required. The pilot saw an average 33% reduction in all energy use and a 45% reduction in off peak heating use.

Properties are all hard-to-treat timber kit properties circa 1976, currently heated by high heat retention storage heaters. Retrofit project will involve external wall insulation, underfloor insulation, new doors and side screens and mechanical ventilation heat recovery.

Tenants will receive technical instructions to ensure heating is programmed efficiently and temperatures will be monitored through already installed Aico environmental sensors.

Project Title: Glenmavis Crescent/Court, Carluke: Energy Efficiency Works

Project Organisation: Clydesdale Housing Association

Technology Type(s): ASHP, HHRSH, Solar PV, Battery Storage and Allume Solshare

Location(s): Carluke, South Lanarkshire Council

Grant Value: £415,703.89

Completion Date: March 2025

Project Headline: Clean heating and microgeneration installed in 33 homes in Carluke, South Lanarkshire.

Project Description:

This project will install net zero measures to 21 houses in Glenmavis Court and 12 flats in Glenmavis Crescent, in Carluke, South Lanarkshire. The project's 21 houses will be fitted with ASHPs and the 12 flats will have HHRSH installed. All homes will receive solar PV and battery storage. Additionally, the 12 flats will benefit from Allume Solshare technology.

The homes in this project are ready for clean heating and microgeneration as they have previously benefited from EWI through other funding. This along with the solar PV, battery and Allume Solshare will allow the tenants maximum benefits from these measures.

The project is expected to bring the EPC of the properties from D to B. It will also significantly reduce fuel bills for tenants, by up to £1500 per annum.

Project Title: Net Zero Heat Demonstrator

Project Organisation: Langstane Housing Association

Technology Type(s): ASHP, Solar PV, Battery Storage, EWI

Location(s): Aberdeen, Aberdeen City Council and Tomintoul, Moray Council

Grant Value: £262,992

Completion Date: April 2025

Project Headline: Project involves installing clean heating systems and fabric first measures to 14 properties in Aberdeen City and Moray

Project Description:

The project involves works to the following properties in Tomintoul and Aberdeen:

- 12 semi-detached, terraced and 2 storey flatted properties in Tomintoul will receive ASHPs, solar PV and battery storage.
- 1 gas-heated semi detached property in Aberdeen will receive an ASHP, EWI, solar PV and battery storage.
- 1 electric storage heated end-terraced property in Aberdeen will receive an ASHP, solar PV and battery storage.

The project has been specifically designed to reach tenants who have inefficient and carbon intensive heating systems, maximising the potential for energy bill savings while reducing tenants' reliance on fossil fuel. To ensure tenants can optimise the efficiency of their systems, a robust handover and end-to-end tenant support will be provided.

The project is intended to produce learnings on the impact of installing clean heating systems in Langstane's properties and evaluate the impact on tenants' energy bills and how easily the tenants' can operate their new systems.

Project Title: Dundee Net Zero Project

Project Organisation: Home in Scotland (Home Group)

Technology Type(s): ASHP, Solar PV via Allume Solshare System, Triple Glazing, IWI, EWI, Insulated Doors

Location(s): Dundee, Dundee City Council

Grant Value: £489,985

Completion Date: May 2025

Project Headline: Project involving 14 individual flats in Dundee in receipt of whole house retrofit including clean heating installation via innovative internal Air Source Heat Pumps.

Project Description:

14 individual flats in adjoining semi-detached blocks in Dundee, blocks are traditional cavity wall construction c.1990. Project is looking at innovative way to find a solution for this property archetype through installing individual Air Source Heat Pumps into all properties. Solution is intended to be used as a ‘blue-print’ for a logical solution to other multi-occupied blocks with limited space for communal heating system, and that may have complications such as with private owners.

Project will also install Allume Solshare system, triple glazing, internal wall insulation, external wall insulation and insulated doors. Project anticipates at least 20% saving on tenant’s bills, alongside this properties are currently EPC C & D – will take all to EPC A. Estimated annual energy savings of 62327.15 kwh. Home in Scotland will also undertaken extensive monitoring and evaluation of the project to determine replicability across housing stock.

Project Title: Katherine Street - Building Fabric Upgrade and ASHP Installation

Project Organisation: Almond Housing Association

Technology Type(s): ASHP, EWI, Double Glazing

Location(s): Livingston, West Lothian Council

Grant Value: £418,427

Completion Date: October 2025

Project Headline: Project will retrofit 25 flatted properties with ASHPs and energy efficiency upgrades including EWI and double glazing

Project Description:

Reducing fuel poverty and the climate emergency are priorities for the Almond Housing Association and the project at Katherine Street presented an opportunity to deliver low carbon technologies and retrofit energy efficiency upgrades.

This refurbishment project will replace the existing mains gas fired boilers with new ASHP systems, providing space heating and hot water. The Association will use this project as a trial for installing ASHP in their properties. If successful, this clean heat will be considered in future development and refurbishment projects. The project aims to have a significant impact on tenant's energy bills and reducing fuel poverty.

To ensure the buildings are future proofed the project is installing Envirowall cladding and double glazing to improve the thermal efficiency and ensure the benefit of the ASHP in maximised. Ventilation measures and environmental sensors will also be installed by the Association to monitor air quality and ensure heat and ventilation benefits are being maximised.

Project Title: Balintore Mixed Tenure - Whole House Retrofit

Project Organisation: The Highland Council

Technology Type(s): EWI, Double Glazing, Insulated Doors (other measures funded via other sources)

Location(s): Balintore, Cromarty, Ross and Tain, Highland Council

Grant Value: £962,000.86

Completion Date: June 2025

Project Headline: This project involves whole house retrofit to 38 properties of Norwegian Timber Construction built in the 1970s

Project Description:

31 properties will benefit from air source heat pumps, and all of the 38 properties will benefit from a suite of measures including: external wall insulation, loft insulation, under floor insulation, triple glazed windows, solar PV and battery, ventilation and windows. The SHNZHF requested will be used for the external wall insulation, double glazing, insulation doors and associated costs.

The remaining measures will be funded between ECO4 funding (which is already confirmed) and the Council's own budget. SHNZHF funding will contribute to this wider project to ensure properties are made energy efficient for the other measures installed to maximise benefits and savings for tenants.

All of the properties are off the gas grid so currently utilise electricity for heating, with many experiencing fuel poverty. All of the measures are designed to reduce each properties carbon emissions and reduce energy demand by adopting a whole house approach commencing with fabric first. All installations will be undertaken to PAS2035 standards.

Project Title: Energy Efficient External Wall Insulation

Project Organisation: Calvay Housing Association

Technology Type(s): ASHP, EWI and CWI

Location(s): Barlanark, Glasgow City Council

Grant Value: £2,260,468

Completion Date: October 2025

Project Headline: This project will deliver cavity wall insulation and external wall insulation to 36 blocks of flats, comprising of 267 properties.

Project Description:

The properties recently had energy efficient windows installed. This project will install external wall insulation and cavity wall fill on 267 flats across 36 blocks. The blocks are cavity brick render, and most are currently heated with gas boilers. The insulation measures will increase the thermal efficiency of the buildings, help to lower tenants' energy bills, increase tenants' comfort, and reduce carbon emissions.
The project will also pilot an innovative ASHP to one property to allow for an evaluation of its performance in a real world setting relevant to Calvay Housing Association’s properties.

In order to measure the improvements, Calvay started monitoring properties in December 2023 and will continue monitoring during and for a 3-month period following the project completion. The ASHP will be monitored for at least 12 months following installation to evaluate the suitability of a wider roll out to all properties.

Project Title: Pre 1919 Sandstone Energy Efficiency Upgrade

Project Organisation: Linthouse Housing Association

Technology Type(s): Triple glazed windows and upgraded doors

Location(s): Govan, Glasgow City Council

Grant Value: £3,766,868.08

Completion Date: Projected November 2025

Project Headline: This project supports energy efficiency upgrades to 692 flats, including new triple glazed windows, upgraded tenement stair entrance doors and upgraded main doors for the flats.

Project Description:

All of the 692 flats are pre-1919 tenements with all properties receiving new entrance and main doors as part of the project. 521 properties will receive new triple glazed windows which will improve overall levels of air tightness. The energy efficiency measures to all tenements will greatly improve the energy efficiency of the properties by reducing heat loss, reducing fuel bills and helping to alleviate fuel poverty.

The fabric first measures will allow these properties to be readied for connection to a future heat network alongside saving carbon emissions and fuel bills savings in the interim.

Project Title: From Rationing to Rationality – the Introduction of Whole House Heating and Ventilation – Phase 2

Project Organisation: Lochalsh and Skye Housing Association (LSHA)

Technology Type(s): ASHP

Location(s): Isle of Skye, Highland Council

Grant Value: £344,324

Completion Date: September 2025

Project Headline: This project supports the installation of clean heat through ASHPs to 32 homes on Skye.

Project Description:

The project involves the installation of ASHPs to 32 homes on the isle of Skye, replacing inefficient storage heaters. This is the second phase of a wider project where Lochalsh and Skye Housing Association removed all oil boilers from their current housing stock.

This next phase involves the installation of ASHPs to help tackle fuel poverty and reduce energy consumption. The homes have been selected due to having the worst performance attributes within LSHA's stock. The previous storage heaters were causing tenants to have higher energy bills and suffer from fuel poverty.

Ventilation measures will also be installed to improve the humidity of the properties. The ventilation measures are not funded via the SHNZHF grant.

Projects Funded Under Checkpoint 10 of the SHNZHF

Project Title: Cordiner Court GSHP District Heating System Project

Project Organisation: Grampian Housing Association

Technology Type(s): Ambient loop GSHP system including the following: boreholes, pipework, individual heat pumps, radiators, heat interface units and property-level metering.

Location(s): Peterhead, Grampian Council

Grant Value: £642,494

Completion Date: Projected March 2026

Project Headline: 48 properties in Peterhead currently on a legacy gas district heat network will be converted to a 5th generation ambient GSHP system.

Project Description:

The project will decarbonise an existing gas fired heat network serving 48 properties (a mix of houses and flats) in Peterhead. The project will replace the existing legacy gas heat network with a 5th generation ambient GSHP system, generating fuel bill savings for tenants.

This project is innovative in its approach to decarbonisation of the existing gas district heating network and targets an area of high fuel poverty.

Project Title: Energy Smart North: Combating Fuel Poverty with Efficient Heating Solutions in Moray

Project Organisation: Ark Housing Association

Technology Type(s): HHRSH, Solar PV & Battery Storage, Connected Response – Smart Storage Heater Controls

Location(s): Moray, Moray Council

Grant Value: £225,724

Completion Date: Projected March 2026

Project Headline: The project will upgrade 19 properties in Moray with energy efficiency upgrades including high heat retention storage heaters, solar PV and battery storage.

Project Description:

The project will install energy efficiency upgrades to 19 properties, including a mixture of flats and semi-detached houses built in the 1990s in Moray. The properties will benefit from the installation of HHRSHs, solar PV and battery storage, alongside heating controls to support efficient use of energy and lower energy costs.

The installation of these heating controls alongside the other measures will support tenants to avoid energy waste, improve household comfort, reduce carbon and mitigate fuel costs for tenants.

Project Title: Shettleston NZH Pilot

Project Organisation: Shettleston Housing Association

Technology Type(s): ASHP, Solar PV and Battery

Location(s): Shettleston, Glasgow City Council

Grant Value: £251,583

Completion Date: Projected March 2026

Project Headline: The project will install air source heat pumps, solar PV and battery storage into 15 properties in Shettleston in Glasgow.

Project Description:

The project is a pilot for the organisation to install measures to 15 properties in Shettleston, Glasgow, an area of high deprivation, falling into the 10-30% most deprived areas in Scotland. The properties are all 2-3 bedroom semi-detached/mid-terraced houses built in the 1920s and are currently heated by gas boilers. Due to the properties already benefitting from fabric improvements via external wall insulation, they are primed and ready for the installation of clean heat.

The pilot project is led from feedback from tenants in regards to high energy bill costs, and the project will seek to help alleviate fuel poverty and reduce carbon emissions. The organisation will seek to utilise learnings from this pilot project to inform their future plans in decarbonising their housing stock.

Project Title: Net Zero Heat Project 2025

Project Organisation: Clydesdale Housing Association

Technology Type(s): ASHP, HHRSHs, Solar PV, Battery Storage, Connected Response – Smart Storage Heater Controls

Location(s): Carluke and Lanark, South Lanarkshire Council

Grant Value: £1,283,809

Completion Date: Projected March 2026

Project Headline: The project will install clean heat and energy efficiency measures to 101 properties throughout South Lanarkshire.

Project Description:

The project will install ASHPs or HHRSHs, depending on the property type, alongside other energy efficiency upgrades including solar PV, battery storage and Connected Response to ensure tenant fuel bill savings.

Properties selected are a mix of flats and houses, of brick cavity or timber frame construction, built between 1989 and 1997. Most properties are currently heated by electric storage heating systems and were chosen due to the inefficiency of the current heating systems and due to the inflexibility of the current charging regime of the ESHs.

Tenants report that they often have to use supplementary heaters at peak electricity times to maintain a comfortable temperature, resulting in higher energy bills and putting them in or at risk of fuel poverty. This project seeks to address this through the installation of the upgraded heating source and accompanying energy efficiency measures.

Project Title: Air Source Heat Pumps (Air to Water) - Craigton Court, Winchburgh

Project Organisation: Horizon Housing Association

Technology Type(s): ASHPs

Location(s): Winchburgh, West Lothian Council

Grant Value: £77,760

Completion Date: Projected March 2026

Project Headline: The project will install air source heat pumps to 8 properties in Winchburgh, West Lothian

Project Description:
The properties are currently heated with electric storage heaters and the project seeks to decarbonise the heating source and convert to a wet system by installing ASHPs to all 8 properties. The ASHPs will be a combined kit with an internal dedicated water heater to supply both the space heating and hot water, and will reduce the energy consumption and support a reduction in fuel poverty for tenants.

This project builds on previous installations of ASHPs into the Association's housing stock and early tenant engagement will ensure tenants are ready to receive the systems and are well informed of the benefits.

Project Title: Internal Cavity Wall Insulation Programme 2025

Project Organisation: Williamsburgh Housing Association

Technology Type(s): IWI, UFI and LI

Location(s): Paisley, Renfrewshire Council

Grant Value: £59,500

Completion Date: Projected March 2026

Project Headline: The project will install a mix of internal wall insulation, under-floor insulation & loft insulation in 36 tenement flats in Paisley.

Project Description:

The project will build on a previously funded successful project in financial year 2024/25 and will primarily install internal wall insulation to improve the fabric efficiency rating of the 36 flats located in the east end of Paisley.

The properties are all pre-1919 Tenements, with sandstone exterior facades and bay window structures which result in barriers and limitations to installing external fabric insulation measures on external elevations due to the nature of the housing stock. Out of the 36 properties, 33 properties will receive IWI, with 3 of the properties in receipt of under floor insulation. Of the properties, all top-floor flats will also receive loft insulation, reducing energy costs and fuel bill savings for tenants.

Project Title: Installation of High Heat Retention Storage Heaters, Solar Panels, Battery Storage, Thermal Storage and loft insulation upgrade to Four Sheltered Housing Complexes

Project Organisation: Angus Council

Technology Type(s): HHRSH, Solar PV, Battery storage, thermal storage and insulation top ups

Location(s): Brechin, Forfar and Arbroath, Angus Council

Grant Value: £772,173

Completion Date: Project March 2026

Project Headline: The project targets 76 properties in four sheltered housing complexes across Brechin, Forfar and Arbroath in Angus Council installing energy efficiency measures.

Project Description:

Energy efficiency measures installed across the four sheltered housing complexes include high heat retention storage heaters, solar PV, battery storage, thermal storage and insulation top ups. The project is tenant led, with the project commencing from feedback from tenants on the high cost of their energy bills. The tenants involved in this project are particularly vulnerable due to being elderly and at risk of fuel poverty.

The installation of these technologies will increase the energy efficiency of the properties, reduce carbon emissions and help alleviate fuel poverty for the residents.

Project Title: Meagher Court Whole House Retrofit

Project Organisation: East Ayrshire Council

Technology Type(s): Communal GSHP, CWI, EWI, IWI, FI, Flat Roof Insulation, Triple Glazing, Insulated Doors, Solar PV, Battery Storage, MVHR.

Location(s): Cumnock, East Ayrshire Council

Grant Value: £420,000

Completion Date: Projected April 2026

Project Headline: This project focuses on the decarbonisation of 12 flats, currently void, in Cumnock, East Ayrshire.

Project Description:

The project will replace existing gas central heating with a communal ground source heat pump system and additional energy efficiency works including insulation measures, solar PV, battery storage and mechanical ventilation with heat recovery.

The properties are part of three mid-rise flats comprising 12 flats in each block, a total of 36 flats in Cumnock, all owned by East Ayrshire Council. This phase of the project focuses on the first 12 flats, with subsequent phases planned by East Ayrshire Council for the remaining properties.

Due to legacy social issues, the block is currently void and due to that, this is a unique opportunity to use the void status as an opportunity to develop the block to a high retrofit standard. The block is standard cavity construction and has previously had EWI installed, however the installation pre-dates the introduction of PAS 2035 and therefore the cavity wall remains uninsulated. There are also uninsulated areas and cold bridging at floor level, at roof verges and at internal walls of communal areas. This project seeks to address these issues and ensure the properties are well insulated with clean heat installed for future tenants.

Project Title: Fabric First – Kilmarnock

Project Organisation: Atrium Homes

Technology Type(s): EWI

Location(s): Kilmarnock, East Ayrshire Council

Grant Value: £1,374,750

Completion Date: Projected June 2026

Project Headline: The project targets EWI upgrades to 140 properties in Kilmarnock.

Project Description:

Of the 140 properties there is a total of 126 houses and 14 flats of ‘no fines’ concrete or Swedish Timber archetypes, with the 14 flats being mixed tenure. All properties will receive EWI. To deliver whole community regeneration, the project is being delivered in partnership with East Ayrshire Council and will join up with Area Based Schemes (ABS) funding.

This combined approach to funding will enable Atrium Homes to maximise the benefits to the community, deliver an area-based approach, and demonstrate that mixed tenure developments can be successfully upgraded through collaborative working and the use of multiple funding streams.

Project Title: Fabric Improvement Works – Underhill, Dalry

Project Organisation: Loreburn Housing Association

Technology Type(s): EWI, CWI, Triple Glazing, Upgraded Doors, MVHR and Environmental Sensors.

Location(s): Dalry, Dumfries and Galloway

Grant Value: £216,500

Completion Date: Projected December 2025

Project Headline: The project involves energy efficiency upgrades to 11 properties at Underhill, St Johns Town of Dalry in Dumfries and Galloway.

Project Description:

The project targets a combined retrofit approach to 11 properties with the aim to achieve an EPC Band ‘B’. This fabric-first approach, mostly comprising various insulation measures, as well as MVHR and environmental sensors, will improve control efficiency and lead to cost savings for tenants. There is also the commitment from the Association to install decarbonised heat in the future to the properties.

The properties have been selected due to the project ensuring the highest impact on fuel poverty across Loreburn's entire housing portfolio. Through supporting this project Loreburn will have data on an additional property archetype for its stock portfolio that will help inform future investment and retrofit strategies**.**

Project Title: Connected Response – Smart Storage Heater Controls

Project Organisation: South Lanarkshire Council

Technology Type(s): Connected Response – Smart Storage Heater Controls

Location(s): Cambuslang, South Lanarkshire Council

Grant Value: £70,000

Completion Date: Projected March 2026

Project Headline: The project to install Connected Response in 144 flats in Cambuslang.

Project Description:

The project will install Connected Response HeatSage technology into each of the 144 flats in the project and will provide more control of the existing electric storage heaters and help alleviate tenant energy bill costs. Through the enhanced controls, the charging of existing heaters can utilise local weather forecasts to determine the most suitable charging times, increasing on colder days and reducing on milder days, which helps adapt the charge to tenants' needs.

Through this project, South Lanarkshire Council aim to improve the health and wellbeing for tenants, reduce energy consumption and reduce tenant bills to alleviate fuel poverty in one of their most disadvantaged demographics.

The project will also extend the lifespan and increase the flexibility of the existing storage heaters – eliminating the need to remove functional heaters to landfill. It also aims to demonstrate how ESHs can be a viable low carbon heating option as part of a decarbonised heating sector in Scotland.

Project Title: Aquhorthies Circle Net Zero Heat Project

Project Organisation: Castlehill Housing Association

Technology Type(s): ASHPs**,** Solar PV, Allume Solshare, Battery Storage, AICO Home-Link Monitoring

Location(s): Inverurie, Aberdeenshire Council

Grant Value: £619,812

Completion Date: Projected March 2026

Project Headline: This project supports the installation of ASHPs in 34 properties at the Circle development, Inverurie.

Project Description:

This project proposes to install individual air source heat pumps in 34 properties at the Aquhorthies Circle development in Inverurie. The properties are a mix of flats and houses, all currently heated by a central gas district heating system with tenants paying a set rate irrespective of use.

The project will install individual ASHPs in all of the properties, alongside replacing all internal heating components (radiators, hot water cylinders and modern controls). Accompanying this the project will install battery storage and Solar PV alongside monitoring equipment to monitor energy savings to inform future decarbonisation plans for the organisation. After installation the existing communal gas heating system will be decommissioned and comprehensive tenant education will be provided to ensure tenants can maximise the benefits of their new heating systems.

The installation of these measures including the individual ASHPs will provide more flexibility for tenants and seek to decarbonise the properties, reduce energy use and provide tenant fuel bill savings.

Project Title: South Ayrshire Rural Retro-fit Programme

Project Organisation: Ayrshire Housing

Technology Type(s): CWI, LI, New triple glazed windows, New insulated doors, Connected Response – Smart Storage Heater Controls, ASHP, Solar PV and Battery storage

Location(s): Barr and Crosshill, South Ayrshire Council

Grant Value: £244,752.94

Completion Date: Projected March 2026

Project Headline: The project involves 17 properties in Crosshill and Barr in South Ayrshire receiving a combination of clean heat and efficiency measures.

Project Description:

The project targets 17 remote rural properties in Barr and Crosshill in South Ayrshire. All of the properties are currently heated with electric storage heating and are poorly insulated, with tenants struggling to heat their homes. The proposed measures will look to reduce tenants fuel bills and provide warmer homes. 8 of the properties will receive energy efficiency measures including Connected Response, cavity wall and loft insulation, new triple glazed windows and insulated doors.

9 of the properties will receive all of the above measures alongside an ASHP, solar PV and battery storage with a view to rolling out the heat upgrades if successful to more of Ayrshire Housing’s stock.

Project Title: Athol Steel Homes: Fabric measures to make them heat pump or network ready

Project Organisation: West Dunbartonshire Council

Technology Type(s): EWI, LI, triple glazed windows, upgraded doors, draught reduction and MVHR.**Location(s):** Clydebank, West Dunbartonshire Council

Grant Value: £780,000

Completion Date: Projected September 2026

Project Headline: This project involves 60 properties in Clydebank receiving energy efficiency measures to support their readiness for future clean heat and reduce fuel bills.

Project Description:

This project involves 60 post-war prefabricated properties of the Athol Steel archetype in an area of multiple deprivation in Clydebank. This Athol Steel archetype is hard-to-treat and a specific retrofit approach is required. This project will seek to provide learnings for the specific archetypes that can be shared with the sector more widely.

The measures include EWI, loft insulation, triple glazed windows, upgraded doors, draught reduction and MVHR. The installation of these measures are intended to support the properties readiness for future clean heat connections and will look to reduce tenant fuel bills and improve thermal comfort.

Project Title: Rockfield Gardens Retrofit

Project Organisation: Glen Housing Association

Technology Type(s): ASHPs, Solar PV with battery storage, EWI, triple glazing and insulated external door upgrades.

Location(s): Glenrothes, Fife Council

Grant Value: £799,655

Completion Date: Projected May 2026

Project Headline: This project involves 30 properties in Glenrothes receiving improvements to clean heat and energy efficiency through a number of measures.

Project Description:

The project will decarbonise and significantly improve the energy efficiency of 30 properties at Rockfield Gardens in Glenrothes. Properties are currently heated by gas central heating which will be replaced with the installation of ASHPs, alongside solar PV with battery storage, EWI, triple glazing and insulated external door upgrades. The properties will also receive ventilation upgrades not funded by the SHNZHF grant.

This combination of technologies will decarbonise the properties, improve thermal comfort and seek to provide fuel bill cost savings for tenants.

Project Title: Dewar Court Regeneration and Net Zero Upgrades

Project Organisation: Cairn Housing Association

Technology Type(s): EWI and Triple Glazing

Location(s): Perth, Perth and Kinross Council

Grant Value: £801,330

Completion Date: Projected March 2026

Project Headline: This project supports the upgrade of 64 socially rented homes in Perth through energy efficiency upgrades.

Project Description:

This project forms part of a wider refurbishment of Dewar Court, a sheltered housing complex in Perth including 31 single-occupancy studio flats, 31 one-bedroom flats, and 2 three-bedroom houses. This project follows a successful pilot project at a sheltered housing scheme of the same archetype which saw improved comfort and affordability for residents so is a proven approach to retrofit.

The SHNZHF funded project will upgrade the fabric of 64 socially rented homes through the installation of external wall insulation and triple glazing to all properties. All flats are serviced by a communal gas central heating system with this project intended to prime the properties for future clean heat installation. The project will increase the EPC ratings of the properties alongside providing fuel bill savings for tenants.

Project Title: Hebridean Heat Pumps 2025

Project Organisation: Hebridean Housing Partnership (HHP)

Technology Type(s): ASHPs

Location(s): Multiple locations across Comhairle nan Eilean Siar Lewis, Uist, Barra and Harris.

Grant Value: £1,081,698

Completion Date: Projected March 2026

Project Headline: This project involves the Installation of 120 ASHPs in off-gas properties within the Outer Hebrides.

Project Description:

Hebridean Housing Partnership will install 120 ASHPs in off-gas properties within the Outer Hebrides – on Lewis, Uist, Barra and Harris. This project supports cost reduction and deployment of clean heating in rural areas and is the next phase in a number of previously successful projects funded via the SHNZHF, bringing the total of Hebridean Housing Partnership's housing stock with heat pumps installed to 91%.

The project will ensure carbon savings and provide fuel bill savings for tenants, directly contributing to the alleviation of fuel poverty in remote rural, island communities.

Project Title: Fabric First Retrofit to Timber Kit Phase 2

Project Organisation: Hjaltland Housing Association

Technology Type(s): EWI, UFI, External Door Upgrades and MVHR

Location(s): Virkie, Shetland Islands Council

Grant Value: £169,750

Completion Date: Projected March 2026

Project Headline: This small scale project supports 5 properties in Virkie, Shetland Islands, to receive a combination of energy efficient measures in a fabric first approach.

Project Description:

This project is phase 2 of a previous project to retrofit the remaining 5 properties in Virkie, Shetland Islands – all detached hard-to-treat timber kit bungalows built circa 1976. All properties will receive energy efficiency measures including EWI, underfloor insulation, external door upgrades and MVHR, in a fabric first approach.

The project is expected to see a reduction in all energy and heating use. The project will also provide fuel bill savings for tenants in one of Shetland's most remote communities and support the expansion of a previously successful phase of the project.

Project Title: Rosewell Net Zero Upgrades

Project Organisation: Midlothian Council

Technology Type(s): ASHP, Solar PV, Battery Storage, Loft Insulation and Underfloor Insulation

Location(s): Rosewell, Midlothian Council

Grant Value: £1,045,527

Completion Date: Projected April 2026

Project Headline: This project involves the decarbonisation of 98 properties in Rosewell.

Project Description:

This project involves 98 properties in the village of Rosewell in Midlothian, involving a blend of archetypes including bungalows and two storey houses built between 1900-1960s. The properties were originally used to house miners from the nearby Whitehill Colliery with Rosewell characterised by its historical 19th century brick terraced cottages.

Properties will receive a combination of ASHP, solar PV and battery installation alongside fabric improvements including 38 properties in receipt of loft and floor insulation where required.

The project will support the decarbonisation of a community, with support provided to tenants on the transition to their new systems. The project will support a reduction in fuel poverty and provide fuel bill savings for tenants, alongside carbon emissions savings.

Project Title: Smart Storage Heating Controls Retrofit

Project Organisation: Trust Housing Association

Technology Type(s): Connected Response – Smart Storage Heater Controls

Location(s): Brechin, Forfar and Arbroath, Angus Council

Grant Value: £45,118

Completion Date: Projected March 2026

Project Headline: This project supports the installation of Connected Heat Sage technology in 58 properties in Angus Council area.

Project Description:

Installation of Connected Response Heat Sage technology in 30 urban and 28 rural properties. All 58 properties in Angus Council area will receive Connected Response to provide more control of existing electric storage heaters, therefore providing cost savings for tenants.

This is the second phase of the project, Trust Housing Association have already installed 345 heating controls, with this phase including their remaining 58 properties.

Project Title: Net Zero, Largoward

Project Organisation: Kingdom Housing Association

Technology Type(s): ASHPs, solar PV and LITU

Location(s): Largoward, Fife Council

Grant Value: £215,183

Completion Date: Projected March 2026

Project Headline: This project involves the installation of clean heat and fabric improvements across 18 properties in Largoward

Project Description:

The properties are all of timber frame construction with previous insulation, which makes them candidates for clean heat installation. The project will install ASHPs, solar PV and loft insulation top-ups across all 18 properties in the rural area of Largoward in Fife.

This project will support the reduction in fuel poverty through reducing heat demand and supports clean heat installation in a rural setting. Tenants will benefit from a wraparound package to ensure a smooth transition to their new heating systems and ensure savings are realised. This project will act as a demonstrator for Kingdom Housing Association to inform their net zero strategy and drive forward the roll out of clean heating across their wider housing stock.

Project Title: Elderhouse Energy Efficiency Project

Project Organisation: Linthouse Housing Association

Technology Type(s): Double glazed windows

Location(s): Govan, Glasgow City Council

Grant Value: £181,772

Completion Date: Projected March 2026

Project Headline: This project involves the installation of double-glazed windows to 16 apartments in Elderhouse, Govan.

Project Description:

Elderhouse is a major A Listed property currently owned by Linthouse Housing Association and comprises of 16 apartments housing elderly tenants. All 16 properties will receive new double glazed windows, in line with the requirements of planning permission for the A listed property.

The project will support a reduction in fuel poverty for the vulnerable tenants and support energy efficiency measures to a prominent historical property.

Project Title: Inverclyde Energy Efficiency Project

Project Organisation: Cloch Housing Association

Technology Type(s): Triple Glazing, Insulated Entrance Doors and External Doors

Location(s): Greenock, Inverkip and Port Glasgow, Inverclyde Council

Grant Value: £3,111,493

Completion Date: Projected September 2026

Project Headline: This project involves the replacement of windows, flat entrance doors and house external doors to 576 properties within the area of Inverclyde.

Project Description:

The project will install energy efficient windows and doors in 576 properties in Inverclyde, providing fuel bill savings for tenants, providing carbon savings and readiness for future clean heating installation. .

The project includes a mix of pre-1919 traditional tenements and interwar and 1980s housing stock. The project will replace the windows with triple glazing to 376 properties, flat entrance doors to 247 and house external doors to 168. This project will support a reduction in fuel poverty in the area and ensure they are ready for future connection to clean heating.

Project Title: Clyde Valley HA Energy Efficiency Project

Project Organisation: Clyde Valley Housing Association

Technology Type(s): Triple glazing and entrance doors

Location(s): Airdrie, Hamilton and Motherwell, North & South Lanarkshire Councils

Grant Value: £1,482,854

Completion Date: Projected September 2026

Project Headline: This project involves the replacement of windows and entrance doors in 249 properties within North & South Lanarkshire.

Project Description:

Project involves 249 properties in North & South Lanarkshire, with a mix of archetypes ranging from 1920s to 1980s period. The project will replace single glazed or double-glazed windows with high performance triple glazed windows and replace entrance doors with high performance external doors.

The project contributes to the alleviation of fuel poverty in these particularly at risk areas, alongside carbon savings. The project will increase energy efficiency in existing housing stock and support a reduction in fuel poverty and ensure properties are readied for future clean heat installations.

Project Title: Perth and Kinross Council Retrofit Pilot

Project Organisation: Perth and Kinross Council

Technology Type(s): ASHPs, Solar PV and Loft insulation

Location(s): Perth, Perth & Kinross Council

Grant Value: £421,000

Completion Date: Projected March 2026

Project Headline: This project supports the installation of clean heat and energy efficiency measures in 35 properties within Perth.

Project Description:

35 properties in Perth will receive ASHPs alongside energy efficiency measures, including Solar PV and Loft insulation. Properties are a mixture of 8 different archetypes which make this a unique project and include a range of end and mid-terraced houses, semi-detached houses and flats, currently heated by gas boilers which are costly.

The new ASHP systems alongside solar PV and loft insulation will improve the properties' energy efficiency, reduce energy bills and lower carbon emissions. The project is intended to provide wider learnings on the specific property archetypes and serve as a pilot project for the Council.

Project Title: Sanctuary Scot Whole Home Retrofit

Project Organisation: Sanctuary Scotland

Technology Type(s): ASHPs, HHRSHs, Solar PV, EWI, CWI, Loft/Flat Roof Insulation, Double Glazing, Draught Proofing and and Smart Heating Controls

Location(s): Multiple locations including Aberdeen City, Aberdeenshire, Angus, Dundee, Glasgow City, North Lanarkshire and Renfrewshire Council.

Grant Value: £1,260,854

Completion Date: Projected September 2026

Project Headline: Project involves clean heat installation and fabric energy efficiency upgrades to 358 homes across Sanctuary Scotland's portfolio of properties across Scotland.

Project Description:

This project involves upgrades to 358 homes in seven local authority areas across Scotland. The stock includes a mix of bungalows, houses and maisonettes, built during the mid-to-late 20th century. Properties are primarily heated with gas central heating, although some involve electric and oil/solid fuel heating systems.

Properties will receive a mix of measures depending on their archetype including ASHPs, HHRSHs, solar PV and a range of insulation measures. Insulation measures include EWI, CWI, loft and flat roof insulation, alongside double glazing, draught proofing and smart heating controls. All properties will not receive clean heat installations, however, where clean heat is not installed the works will deliver clean heat readiness with improved thermal envelopes. The project is intended to provide fuel bill savings for tenants, improve thermal comfort and reduce energy demand.

Sanctuary Scotland will also install energy saving lighting at their own cost.

Project Title: Installation of structural external wall insulation on social homes in Lochend and Restalrig, Edinburgh

Project Organisation: City of Edinburgh Council

Technology Type(s): Structural EWI (SEWI)

Location(s): Lochend and Restalrig, Edinburgh

Grant Value: £1,695,000

Completion Date: Projected September 2026

Project Headline: Project involves the installation of structural EWI to 113 Council owned properties in Edinburgh.

Project Description:

The SHNZHF funded works focus on the installation of SEWI to all 113 Council owned properties which are 1920s tenements of “Airey Duo” or “Duo Slab” construction. Due to the non-traditional construction of the homes, conventional energy efficiency solutions are not possible, and as such a more innovative approach has been taken. The SEWI has been trialled across 18 flats and following success of this trial, the Council is rolling out these upgrades more widely. These improvements, as part of the wider programme of works, will reduce fuel costs in an area of multiple deprivation, alongside carbon savings.

The project is part of a wider project that includes other insulation measures not funded by the Fund, including CWI, loft insulation and double glazing, alongside fabric repairs.

Project is also being match funded by Area Based Schemes (ABS) funding.

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