

Public Document Pack



ENVIRONMENT & ECONOMY SELECT COMMITTEE

Date: Tuesday, 11 March 2025

Time: 6.00pm,

Location: Council Chamber

Contact: Alex Marsh (01438) 242587

Committees@stevenage.gov.uk

Members: Councillors: R Broom (Chair), A McGuinness (Vice-Chair), J Ashley-Wren, L Brady, F Chowdhury, A Gordon, S Mead, C Parris, E Plater, N Williams and J Woods

AGENDA

PART 1

1. APOLOGIES FOR ABSENCE AND DECLARATIONS OF INTEREST

2. CLIMATE CHANGE - SOCIAL HOUSING RETROFIT DECARBONISATION PROGRAMME

To receive a presentation from Officers on the work the Council has undertaken towards retrofitting decarbonisation works to the authorities housing stock and on the scale of work and central government funding required to complete the task and a briefing paper on private homes retrofit and decarbonisation.

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3. URGENT PART 1 BUSINESS

To consider any Part 1 business accepted by the Chair as urgent.

4. EXCLUSION OF PUBLIC AND PRESS

To consider the following motions –

1. That under Section 100(A) of the Local Government Act 1972, the press and public be excluded from the meeting for the following items of business on the grounds that they involve the likely disclosure of exempt information as described in paragraphs 1 – 7 of Part 1 of Schedule 12A of the Act as amended by Local Government (Access to Information) (Variation) Order 2006.

2. That Members consider the reasons for the following reports being in Part II and determine whether or not maintaining the exemption from disclosure of the information contained therein outweighs the public interest in disclosure.

5. URGENT PART II BUSINESS

To consider any Part II business accepted by the Chair as urgent.

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Housing Stock - Energy Efficiency & Decarbonisation

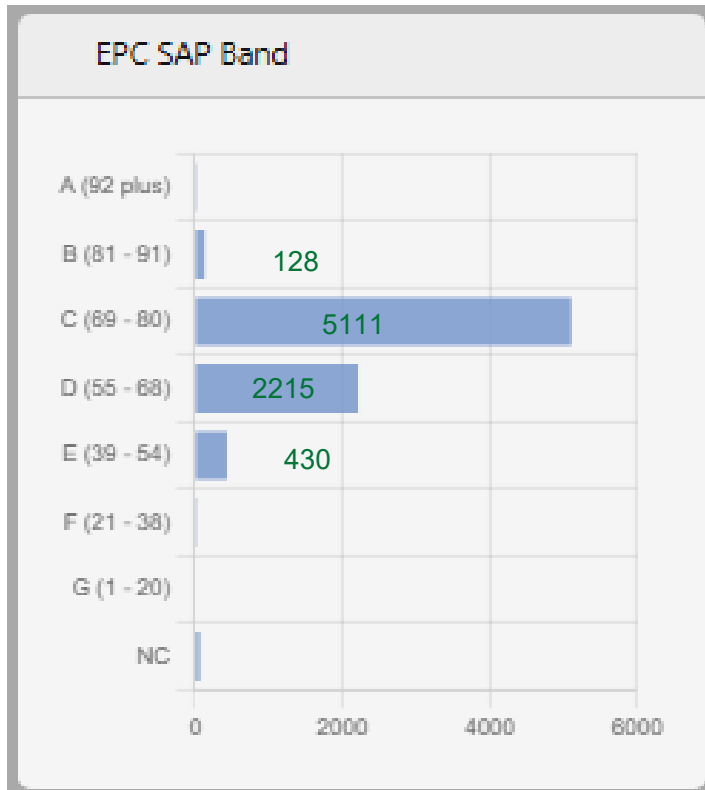
Andrew Garside – Head of Housing Asset Management
Kirsten Simpson – Energy & Sustainability Coordinator

- Targets & goals
- Current position
- Stock intelligence
- How we use the data
- What this means for our stock
- Work so far
- Next steps

Targets/ Goals

- The key targets and goals for climate change and net zero are outlined in the Housing Asset Management Strategy.
- The government to consult on all social homes in England to achieve EPC C by 2030.
- Consultation on Decent Homes 2 – likely to include reference to a minimum energy efficiency standard.
- SBC has committed as part of the Climate Change Strategy to achieve minimum EPC C for council homes by 2030.
- The UK to be net zero by 2050.

Current position



Average
SAP rating
– **69 Band
C**

Average
carbon
emission per
property – **2.7
tonnes per
year**

Total carbon
emissions for
stock (approx.)
**20,733 tonnes
per year**

% of stock
EPC C or
higher –
65%

Average
carbon
emission
houses – **3.2
tonnes per
year**

Average
carbon
emission flats
– **1.8 tonnes
per year**

- The average SAP rating of 69 is 3 SAP rating higher than the estimated UK average of 66 (Band D) based on data from 2021.
- In 2019 UK national average carbon emissions were 4 tonnes per year for houses and 2.3 tonnes per year for flats.

Stock Intelligence

How we capture data

Energy performance certificate (EPC)

Certificate contents

- Rules on letting this property
- Energy rating and score
- Breakdown of property's energy performance
- How this affects your energy bills
- Impact on the environment
- Steps you could take to save energy
- Who to contact about this certificate
- Other certificates for this property

Share this certificate

- Email
- Copy link to clipboard
- Print

57 Penn Road
STEVENAGE
SG1 1HT

Energy rating
D

Valid until
30 September 2033

Certificate number
0350-2176-8310-2697-3055

Property type
Ground-floor flat

Total floor area
24 square metres

Rules on letting this property

Properties can be let if they have an energy rating from A to E.
You can read [guidance for landlords on the regulations and exemptions](#).

Energy rating and score

This property's energy rating is D. It has the potential to be C.
See how to [improve this property's energy efficiency](#).

Score	Energy rating	Current	Potential
92+	A		
81-91	B		
69-80	C		75 C
55-68	D	67 D	
39-54	E		
21-38	F		

- Energy data is continually updated through the collection of data.
- Current programme of EPC's that is run alongside the stock condition surveys. EPCs are also carried out when required at the void stage and during mutual exchange applications.
- Other data sources are also used to update the information used to inform and calculate SAP scores and recommended works.
- Details of completed works.
- Retrofit assessments.
- Boiler models and ratings.
- Stock data held where an EPC is not held.

Sava Intelligent Energy



Sava Intelligent Energy is used to calculate the stocks energy performance. This is fully integrated with Asset Management system - Keystone.



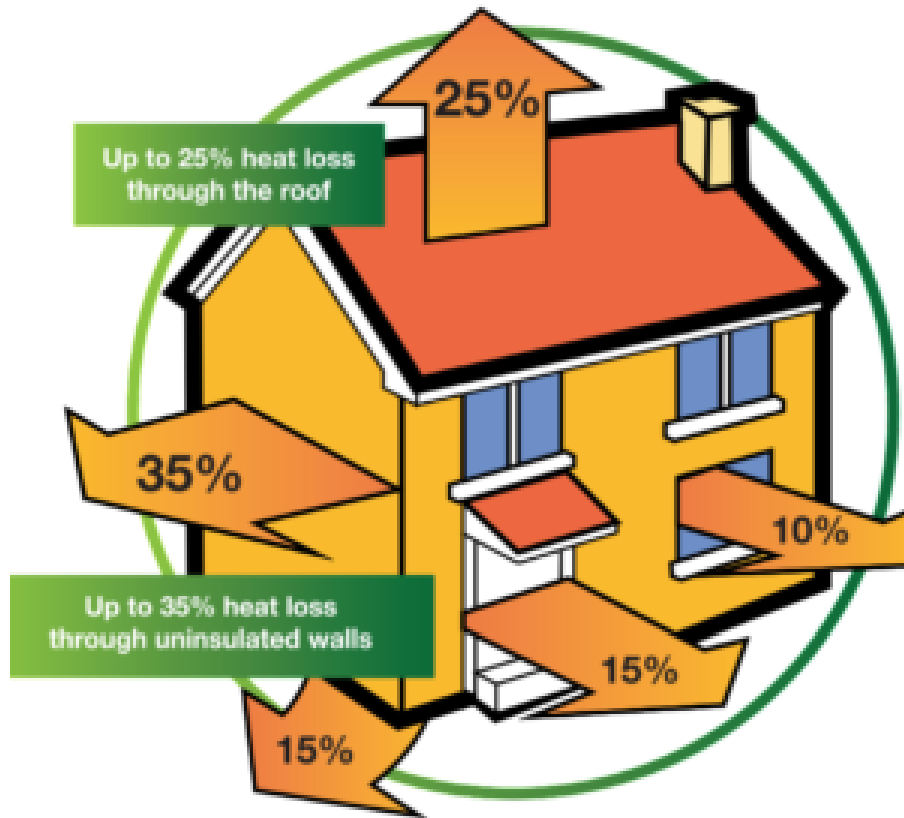
The system is used to carry out modelling and scenario planning for both improving energy efficiency and the decarbonisation of the stock. The modelling and scenario planning have been used to inform the successful bids for Social Housing Decarbonisation Funding (SHDF) Wave 1 & 2.



Data work has been carried out to enhance the stocks energy data. This exercise helped to validate assurance levels regarding the data held and identified how this data could be further enhanced.

How we use the data

Measures – fabric first



Current measures:

- External wall insulation
- Cavity wall insulation
- Loft insulation
- Ventilation
- Low energy lighting
- Windows/ doors
- Solar panels (only in some cases)

Some measures recommended on EPC's have been discounted in current programmes due to high cost and disruption e.g. floor insulation.

Measure selection process

- Homes are subject to detailed energy assessment to select most appropriate measures required to reach the EPC C target. Meaning measures can differ home by home. Measures can have different effects on the SAP score.
- This is based on SAP points – 69 points are needed to reach an EPC C
- One property may need different measures to another, even if they are the same archetype. There are many reasons this may differ e.g. built form (end terrace will lose more heat than mid terrace), floor (mid floor will hold more heat than top floor), total floor area.

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Property A



Current EPC – **D 68**

Measures required to reach the EPC C (69) target =

- Loft insulation – 3 SAP points

Property B



Current EPC – **D 56**

Measures required to reach the EPC C (69) target =

- Loft insulation - 3 SAP points
- Cavity wall insulation – 5 SAP points
- Solar PV – 10 points SAP points

What this means for our stock

Improvement planning

Using the improvement planning functionality in Intelligent Energy two plans have been created.

1. Band C Plan

Reprofiling of the MTFs due to funding pressures identified in 2024/25 means a shortfall in match funding for achieving Band C

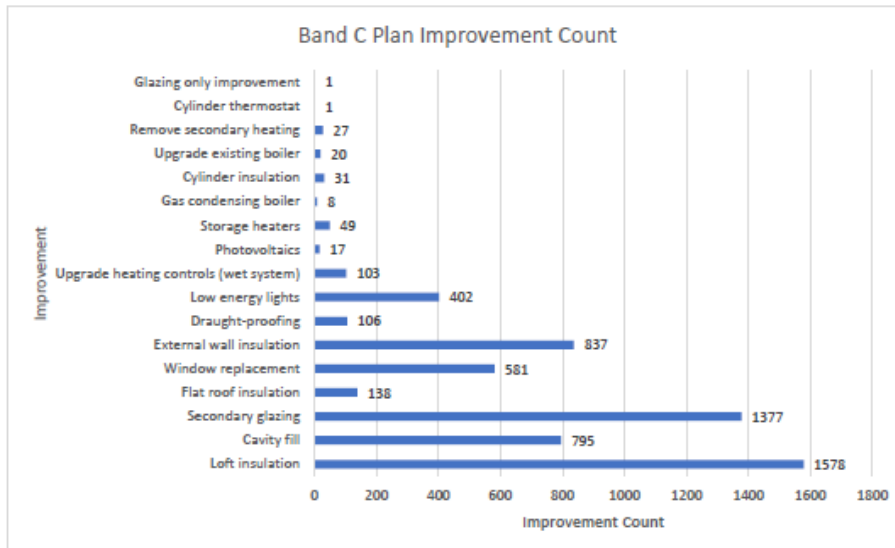
This is beyond what would be required to support the wave 3 bid we have submitted as well as wider decarbonisation targets and the funding we do have assumes a level of grant funding which isn't guaranteed.

This position will be considered as part the review of the HRA Business Plan in early 2025/26.

2. Path to Zero carbon plan

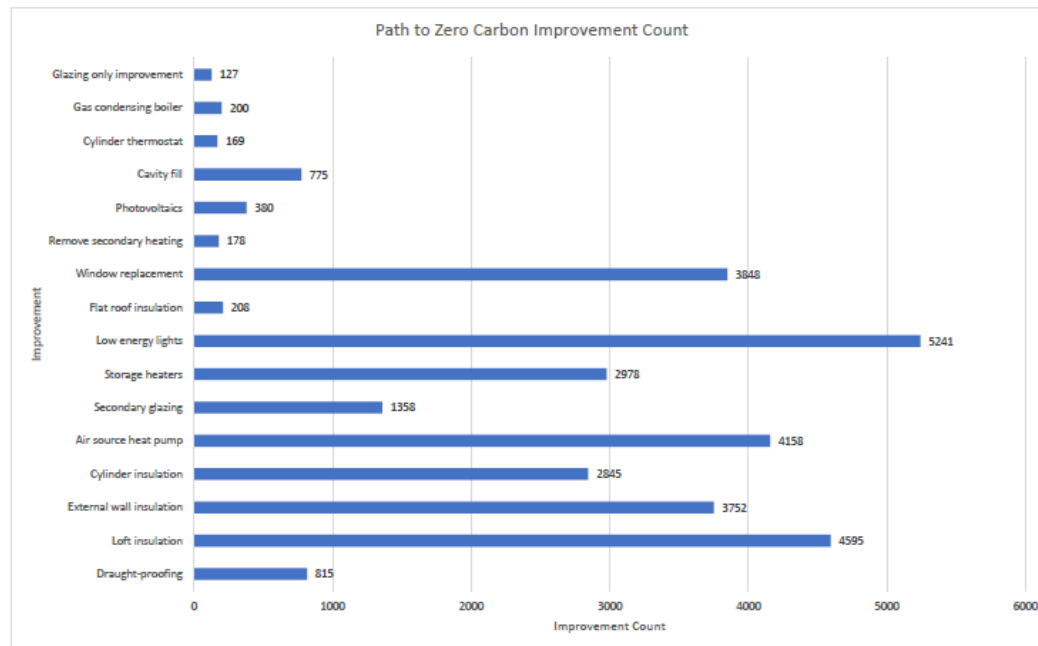
This is not currently funded in HRA business plan.

Band C plan - £20,097,929



- Details how remaining properties can meet EPC Band C in most cost effective manner.
- All properties in the plan can meet the target with only 32 falling short – further options appraisal required to establish how these can be addressed.
- The plan results in a 2,444 tonne reduction in CO2 emissions for the housing stock per year and the average SAP increasing to 72.
- Fabric first approach helps to avoid inefficiency of installing powerful and costly heating systems to then later improve the building fabric where the heating system then becomes oversized for the reduced heating requirements.
- 490 homes EPC E – which will require successively more improvements therefore resulting in higher cost per property.
- Estimated total cost for this plan **£20,097,929**

Path to Zero Carbon plan - £168,895,978.



- This plan sets the carbon target for the stock at 0% of current emissions, i.e., full or absolute zero carbon.

Initially using all appropriate measures, the plan reduces CO2 emissions for the stock by 91%, bringing it down to 1,369 tonnes per year by implementing a further 31,627 improvements.

381 properties were able to achieve absolute zero carbon and the remaining would produce 1,369 tonnes per year..

The headline estimated cost for this plan is **£135,838,450**, averaging at **£17,420** per property (this is after Band C improvements are implemented).

May be possible to deal with this residual carbon by additional measures and/or by offsetting; this would then be known as “net zero carbon”.

- The additional cost of reducing these carbon emissions would be £12,959,599.49. Adding this to the cost of measures identified gives an overall cost of **£168,895,978**.

Work so far (Band C)

- Over the past four years successfully secured £5.5 million total grant funding through LAD1B, SHDF Wave 1 & SHDF Wave 2.
- With a total match funding of over £6 million.
- 359 homes upgraded through LAD1B & SHDF Wave 1 – all now meeting or exceeding EPC C target.
- 237 homes will be improved through SHDF Wave 2.
- Decent homes works such as new windows and boilers has positive effect on EPC's
- Upgraded communal heating systems - some schemes incorporated solar thermal

Current Wave 2 project - £7,276,347.11



Mixture of flat blocks/
street properties



237 homes to be
upgraded



Combined with MRC
works on flat blocks –
whole block approach



All reaching EPC Band
C or B



Due to complete April
2025



Environmental
monitors in some
properties to monitor
post works.

Pre works photographs – Mount Pleasant



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5 Mount Pleasant Flats Weston Road STEVENAGE SG1 3RJ	Energy rating D
Valid until 10 June 2033	Certificate number 0700-5575-0422-6294-3573

Heating this property

Estimated energy needed in this property is:

- 7,215 kWh per year for heating
- 1,540 kWh per year for hot water

Post works photographs – Mount Pleasant



External wall insulation



New double-glazed windows

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2 Mount Pleasant Flats Weston Road STEVENAGE SG1 3RJ		Energy rating C
Valid until 26 June 2034	Certificate number 2531-3039-2206-1154-4204	

400mm loft insulation

Upgraded ventilation



Heating this property

Estimated energy needed in this property is:

- 3,914 kWh per year for heating
- 1,542 kWh per year for hot water

Saving approx. £125 a year on heating per property

Pre works photographs – Buckthorn Avenue

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Post works photographs – Buckthorne Avenue



Next steps

- Still approx. 2700 homes below the EPC C target.
- All stock still needs to be fully decarbonised (not currently funded in the HRA Business Plan)
- Current funding requirements are based around EPC C target rather than decarbonisation.
- Low carbon heating systems can sometimes have a negative effect on EPC's due to the high cost of electricity for occupants.

SHDF Wave 3

- Awaiting outcome of bid– hopefully by the time of this presentation we should be able to give an update.
- 3 year funding allocation.
- This has been oversubscribed so won't receive the full amount requested.
- Small amount of allowance towards low carbon heating systems (Air Source) which will be utilised if successful.



Decarbonisation schemes for private homes in Stevenage

1. Introduction

- This document outlines the schemes introduced in recent years to support the retrofitting of private homes in Stevenage.
- These efforts align with Stevenage Borough Council's (SBC) and the UK Government's broader commitments to reducing Greenhouse Gas (GHG) emissions, mitigating local pollution, and addressing fuel poverty.
- The objectives of this document are:
 - Summarise recent UK retrofitting schemes for private homes.
 - Outline key delivery aspects in Stevenage.
 - Assess the delivery of these schemes in Stevenage and alignment with climate targets.

2. Emissions from the residential sector in Stevenage

- In 2019, SBC set an ambitious target to achieve net-zero emissions by 2030, covering both the Council and the town.
- Stevenage's climate target includes addressing GHG emissions from the residential sector, which encompasses both public and private housing.
- The residential sector is a significant contributor to Stevenage's GHG emissions, accounting for 25.8% of its total emissions, making it the second-largest emitting sector after transport (31.2%).
- According to the SAVA "*Carbon Footprint and Path to Zero Carbon*" report, prepared for SBC on 31st May 2024, total emissions from the Council's housing stock (7,848 properties) were 20,733 tCO_{2e}/year, approximately 22% of the town's residential emissions (93,738.8 tCO_{2e}).
- This implies that approximately 78% of the town's total residential GHG emissions are derived from private homes (73,005 tCO_{2e}/year).
- With 80% of the UK's 2050 building stock already in place, retrofitting represents a critical challenge for both the UK and Stevenage in meeting climate targets.

3. Retrofit and decarbonisation schemes for private homes

3.1. Local Authority Delivery (LAD)

- The Local Authority Delivery (LAD) programme is funded by the UK Government.
- It aims to improve energy efficiency in low-income and low-energy-performance homes, especially those ineligible for other schemes but still needing support to reduce energy bills and enhance heating.
- Local Authorities (LAs) administered funding, managed delivery, and ensured assistance reached those most in need.
- LAD targeted hard-to-heat homes with poor energy ratings, implementing measures such as insulation and heating system upgrades.

- It supports energy efficiency improvements across various tenures, including owner-occupied, private rented, and social housing.
- Homeowners could receive full funding for eligible upgrades, capped at £10,000 per property.
- Landlords (private and social) were also eligible but must contribute at least one-third of the upgrade costs.
- Funding was allocated in phases throughout the years. Under the LAD1B round, SBC secured funding to upgrade 150 social housing properties from March 2021 to May 2022.
- Under LAD3 round, only £26,171 was spent in Stevenage, retrofitting just seven private homes with cavity wall insulation, double glazing, energy-efficient doors, flat roof insulation, heating controls, loft insulation, and PV panels.
- Low uptake was mainly due to the strict eligibility criteria, including:
 - A relatively low income threshold, limiting qualifying households.
 - Landlord match-funding requirements, discouraging participation.
 - Many eligible residents being renters rather than homeowners, reducing the applicant pool.

3.2. Home Upgrade Grant (HUG)

- The Home Upgrade Grant (HUG) funded energy efficiency improvements for homes with poor insulation and outdated heating.
- It targeted off-gas-grid households (e.g., those using heating oil or electric heating).
- Grants covered upgrades like insulation, air-source heat pumps (ASHPs), and PV panels.
- LAs and energy suppliers administered the grants, funded by the UK Government.
- LAs managed funding and delivered energy-saving measures to eligible households.
- No homes in Stevenage were upgraded under the 1st round of the scheme (HUG 1), despite allocated funding.
- SBC actively promoted the 2nd round, HUG 2 (April 2023-March 2025), offering free upgrades to low-income, off-gas households.
- Promotion included direct letter drops to 481 homes, outreach to 257 stakeholders, and a social media campaign reaching 19,000 people, along with posters on digital screens, buses, and community noticeboards.
- Despite initial interest, many applicants failed to respond to follow-ups, a common issue in similar schemes due to administrative challenges and strict eligibility criteria.
- High administrative costs and the risk of reduced funding due to underdelivery discouraged some organisations like GSEnz (Greater South-East Net Zero Hub) from administering subsequent schemes like the Warm Homes Local Grant (WHLG).
- The main barrier to HUG deployment was stringent eligibility criteria, particularly income thresholds and property requirements. Eligible households needed a combined annual income below £36,000, properties not connected to the main gas grid, and poor energy efficiency ratings (specifically EPC bands D to G).
- Strict conditions significantly reduced the number of eligible applicants, leading to lower uptake in the area.
- Although marketed as free, HUG only fully funded improvements for homeowners. Private landlords had to cover at least one-third of costs, while social housing providers contributed 50%, discouraging landlord participation.

- These factors limited the impact of HUG in Stevenage. Of 41 applications under HUG 2, 36 were cancelled or rejected, with only five homes upgraded.

3.3. Sustainable Warmth

- Sustainable Warmth, launched in 2021, is a UK Government strategy to improve energy efficiency and reduce GHG emissions, focusing on low-income and vulnerable households.
- It supported national climate change and energy security efforts by lowering heating costs, tackling fuel poverty, and enhancing home comfort.
- As its core, Sustainable Warmth served as an umbrella strategy, including several programmes like LAD and HUG, which financed insulation, heating upgrades, and renewable energy integration.
- Sustainable Warmth was a policy framework, not a funding scheme, aimed at reducing emissions from the residential sector, a major contributor to national emissions.

3.4. Solar Together Scheme

- Solar Together is a group-buying scheme that helps homeowners install solar PV panels and battery storage systems (BESS) at competitive prices.
- By aggregating demand, it secures better deals from vetted installers, making renewable energy more affordable.
- The initiative is a collaboration between LAs and experts like iChoosr Ltd, ensuring a streamlined process and quality installations.
- In Stevenage, the *"2023 End of Project Report"* recorded 210 residents registering interest, with 46 proceeding with PV installations and 2 opting for BESS.
- The third round of the scheme in Hertfordshire is currently open for registrations, including for residents and businesses in Stevenage. Further information is available [here](#).
- The current registration period runs until 4 April 2025, with a likely extension to May 2025. Registration is free and non-binding.
- After registration, a reverse auction allows pre-vetted solar suppliers to bid competitively. Participants receive a personalised recommendation on costs and system specifications. If accepted, installation follows a technical survey.
- Based on the latest available *"Registration Report for March 2025 Auction"*, issued on 24 February 2025, 81 registrations were recorded in Stevenage: 78 for solar installations, 3 for BESS, and 34 also interested in EV charge points. No businesses had registered by that date.

3.5. Energy Company Obligation (ECO)

- The Energy Company Obligation (ECO) is a UK Government scheme requiring energy suppliers to fund energy-efficiency improvements, primarily for low-income and vulnerable households, aiming to reduce GHG emissions and alleviate fuel poverty.
- The ECO scheme supports insulation, heating upgrades, and energy-efficient appliances.
- While LAs do not directly deliver ECO measures, they assist by identifying eligible households and coordinating referrals, especially for those in fuel poverty.
- Its third round (ECO 3), running from 2017 to 2022, expanded on previous phases, targeting vulnerable households and areas with hard-to-heat homes. It focused on insulation, heating systems, and low-carbon technologies, such as ASHPs and solar thermal panels.

- The ECO Flex scheme allows LAs to broaden eligibility beyond standard criteria, helping households in fuel poverty that do not meet traditional qualification requirements. It has enabled more people to access energy-efficiency upgrades.
- According to the SBC's records, a total of 15 ECO 3 Flex declarations were signed under this scheme.
- The fourth round (ECO 4), launched in 2022, builds on previous phases with a stronger focus on achieving net-zero emissions by 2050.
- ECO 4 targets vulnerable households with an Energy Performance Certificate (EPC) rating of D or below and promotes whole-house retrofits. The scheme includes more low-carbon technologies like air-source heat pumps and smart controls.
- Currently, SBC is delivering the ECO 4 Flex scheme, which is open for referrals. Further information can be found [here](#).
- Recent news has highlighted concerns over mould, damp, and decay in homes following ECO works. Insulation and heating upgrades, if not properly installed or managed, can trap moisture, exacerbating these issues. This has raised concerns about the long-term effectiveness of ECO measures.

3.6. Great British Insulation Scheme (GBIS)

- The Great British Insulation Scheme (GBIS) provides free insulation to low-income households, reducing heating costs and GHG emissions.
- As with ECO, while LAs may play a role in identifying eligible households, they are not the main deliverers of the scheme itself. Energy suppliers or other delivery partners generally handle the installation of insulation measures.
- Unlike ECO, which covers a broader range of energy efficiency measures, GBIS focuses solely on insulation and is delivered by energy suppliers or partners.
- While both schemes target low-income households, pensioners, and social housing residents, ECO has a wider scope, including heating upgrades and broader eligibility based on benefits or fuel poverty.
- GBIS scheme funding is provided by energy suppliers.
- GBIS is typically a short-term programme linked to specific government initiatives, while ECO is an ongoing programme with regular updates and new phases.
- Currently, SBC supports GBIS alongside the ECO 4 Flex scheme, as shown in the link provided in the previous section.

3.7. Warm Homes: Local Grant

- The Warm Homes Local Grant (WHLG) is part of the UK Government's effort to meet the 2030 fuel poverty target, aiming to reduce energy bills and improve home energy efficiency.
- WHLG applies to on and off-gas properties, with EPC ratings between D and G, and includes owner-occupied or privately rented homes (social housing only as infill).
- Landlords receive full funding for their first property and 50% for others. For properties with EPC ratings of F or G, registered exemptions are required, and funding cannot be used to bring these properties into compliance with existing regulations.
- WHLG eligibility is based on three pathways:
 - Pathway 1: Households within Index of Multiple Deprivation (IMD) 1 and 2 areas.

- Pathway 2: Households receiving specific means-tested benefits, including housing benefit, jobseeker's allowance, income-related employment & support allowance, income support, pension credit, universal credit, or those meeting at least two specified proxies.
- Pathway 3: Annual gross income below £36,000 or below a specified threshold after housing costs.
- WHLG will begin delivery in 2025, providing energy performance upgrades and low-carbon heating to low-income households with EPC ratings D to G.
- Eligible homes will receive tailored upgrades, such as insulation, solar panels, and ASHPs.
- Low-income occupants will pay no costs.
- LAs, including SBC, will manage the delivery, with SBC aiming to upgrade 40 homes in the first year, and 60 in each of the next two years, though final allocations may be capped based on past delivery performance.
- Eligible measures include fabric improvements (i.e., insulation, draughtproofing, double glazing, energy efficient doors); smart technologies (i.e., solar PV, smart controls, BESS); heat pumps, and high retention storage heaters.

3.8. Summary & Conclusions

- Retrofitting private homes in Stevenage is crucial for achieving the town's net-zero emissions target by 2030.
- The residential sector accounts for about 25.8% of total emissions, with private homes responsible for 78% of the residential emissions.
- Some retrofitting schemes, such as LAD and HUG, have been designed for LAs to manage and deliver directly.
- LAD's success in Stevenage has been limited by strict eligibility criteria, such as low income thresholds and landlord match-funding requirements, which have deterred participation. Additionally, many eligible residents are renters, reducing the pool of applicants, resulting in minimal uptake for private homes under the programme.
- HUG also faced limited success due to stringent eligibility criteria, including income thresholds and property requirements. As a highly urbanised area, the number of eligible off-gas-grid homes in Stevenage is small. Despite active promotion, many applicants did not follow through. Landlord contributions further reduced uptake.
- Schemes like ECO and GBIS were not designed for LAs to directly deliver but to assist in identifying eligible homes. These schemes have also faced delivery challenges in Stevenage, including strict eligibility, low engagement, and administrative hurdles. Additionally, the quality of works under ECO has raised concerns, with mould and damp issues reported across the country after installations.
- More recently, WHLG has been designed with broader eligibility criteria, aiming to improve delivery by offering various pathways to meet requirements, making it more accessible, including to on-gas properties. SBC has expressed its interest in delivering between 40 and 60 homes annually under this new scheme, starting in spring 2025.
- Finally, despite the introduction of WHLG and other schemes, the challenge of reducing GHG emissions from the private residential sector in Stevenage remains immense. With private homes accounting for 78% of the town's residential emissions, achieving a town's net-zero target will require substantial progress in retrofitting efforts, particularly considering the limitations of existing infrastructure and the UK's aging building stock.

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