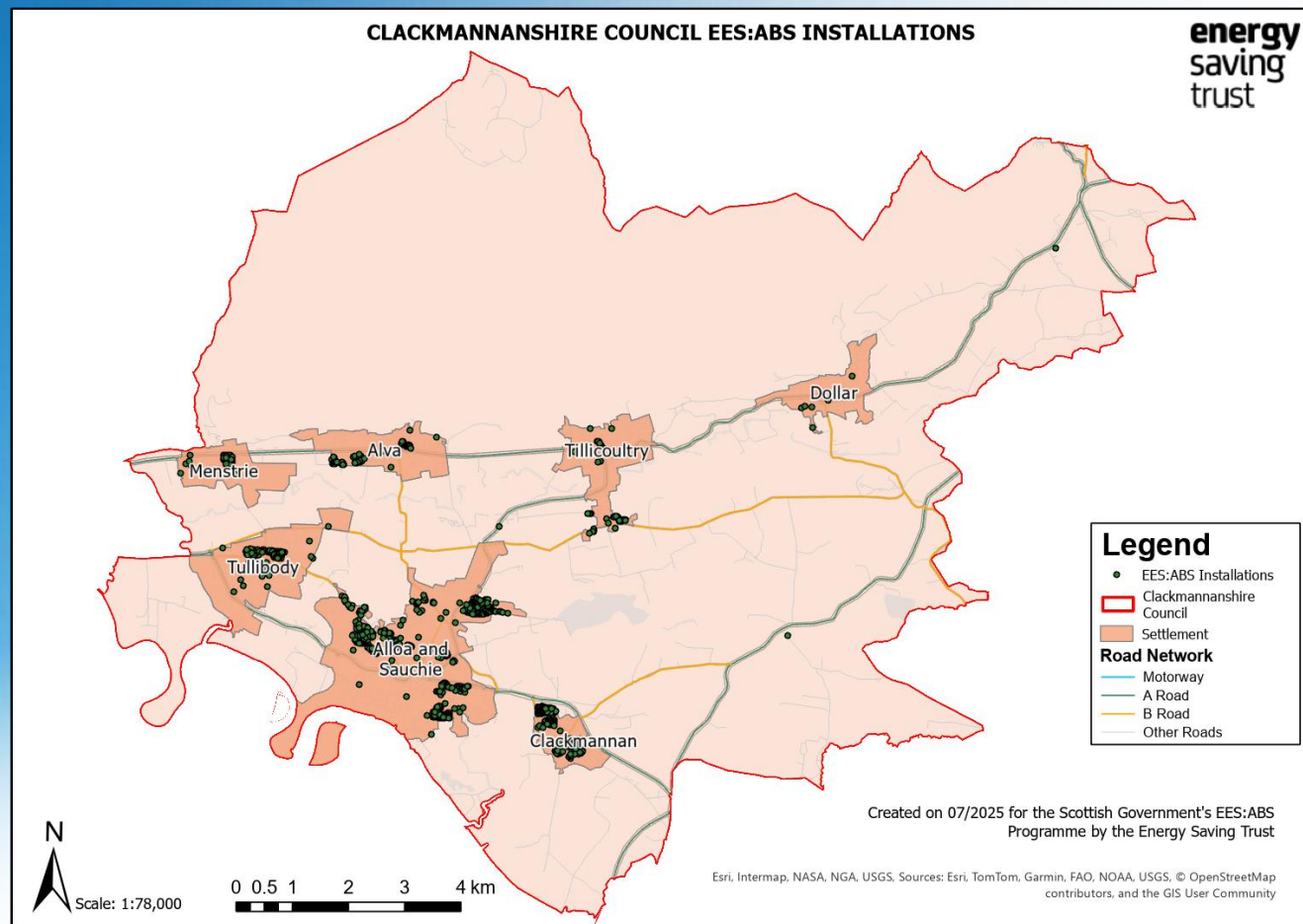


Clackmannanshire

EES: ABS Case Study

energy
saving
trust

Energy Saving Trust
April 2026



Overview

The Scottish Government's EES: ABS* team requested the case studies to compare the available EES: ABS install data, alongside other energy efficiency related characteristics, with three goals in mind:

- To provide a more detailed breakdown of the installed measures data to date.
- To allow greater comparison between the different local authorities as well as across the duration of the EES: ABS programme.
- To provide a series of illustrations that the Scottish Government or local authorities can use to promote the work achieved under the EES: ABS programme.

This presentation contains the case study and illustration set for Clackmannanshire Council EES: ABS activity reported to date (April 2026).**

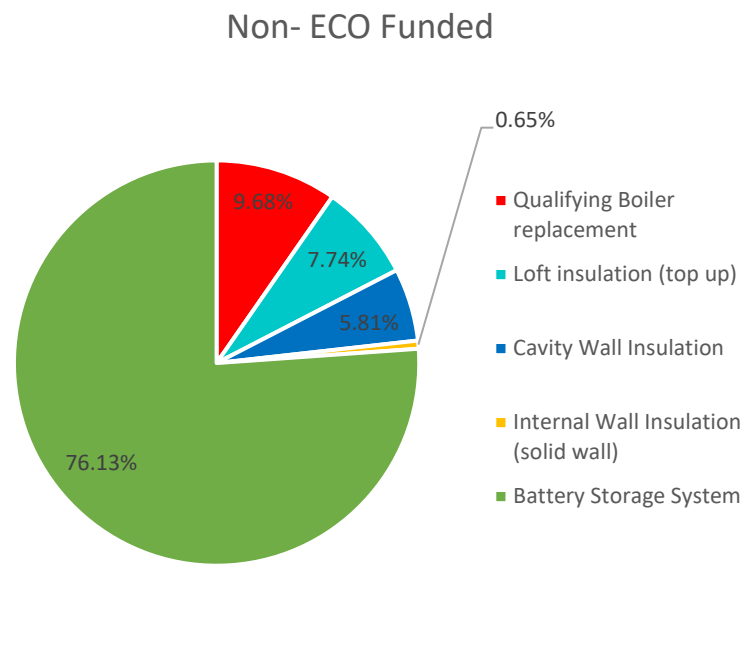
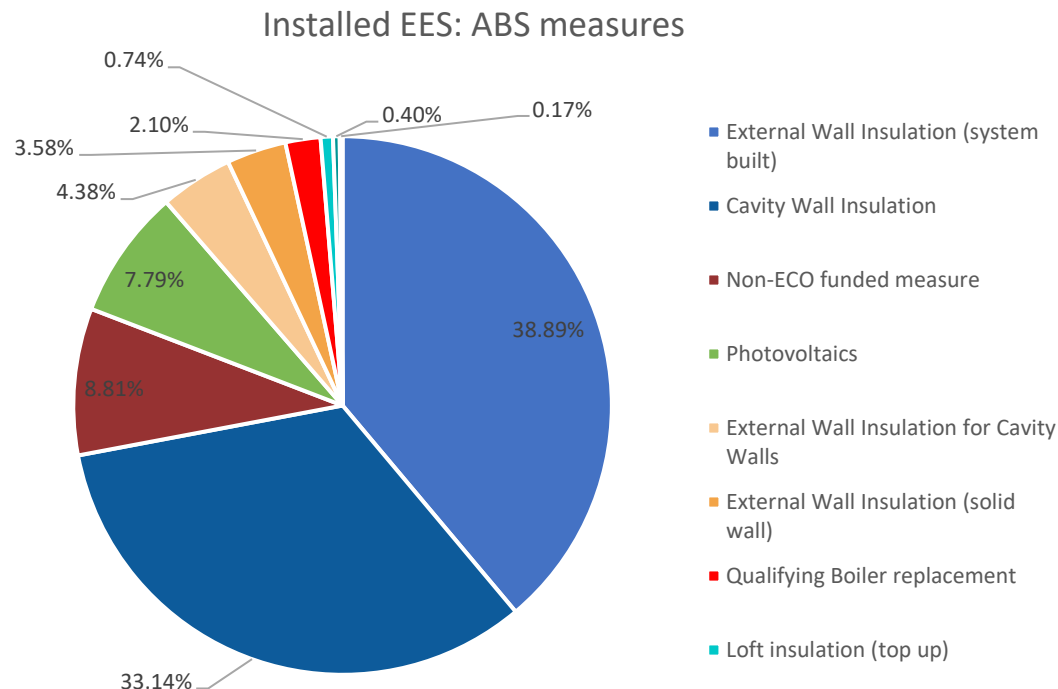
The Clackmannanshire EES: ABS dataset

Financial Year	Number of records ¹	% of records
2013/14	709	40.31
2014/15	94	5.34
2015/16	117	6.65
2016/17	204	11.60
2017/18	105	5.97
2018/19	76	4.32
2019/20	58	3.30
2020/21	67	3.81
2021/22	52	2.96
2022/23	135	7.67
2023/24 ¹	142	8.07
Total Installs	1,759	100.00

Reference numbers	Number of records ¹	% of records
With pre-installation EPC	1,329	75.55
With post-installation EPC	800	45.48
With pre and post-installation EPC	800	45.48
With GDAR	747	42.47
With measure reference number	78	4.43

Clackmannanshire council has contributed 1.34%* of the total EES: ABS installs across Scotland reported to date (Sept 2024).

Installed Measures



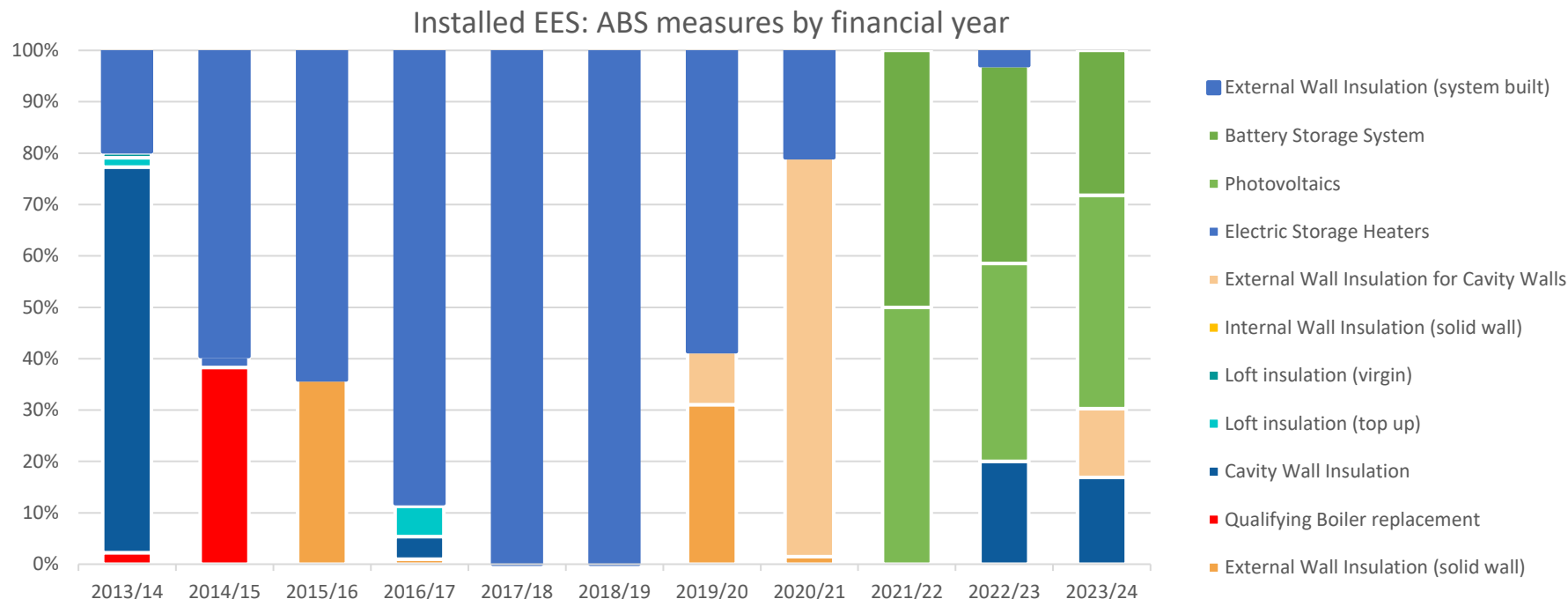
Clackmannanshire Council has implemented a range of measures under their EES: ABS programme. More than 80% of these have focused on wall insulation, including external wall insulation for solid walls, standard cavity walls, and cavity walls with external insulation. Around 8.8% of the measures were funded outside of the ECO scheme, predominantly covering battery storage and Qualifying Boiler replacements.

Installed Measures II

Measure Name	Number of records*	% of records
External Wall Insulation (system built)	684	38.89
Cavity Wall Insulation	583	33.14
Non-ECO funded measure	155	8.81
Photovoltaics	137	7.79
External Wall Insulation for Cavity Walls	77	4.38
External Wall Insulation (solid wall)	63	3.58
Qualifying Boiler replacement	37	2.10
Loft insulation (top up)	13	0.74
Loft insulation (virgin)	7	0.40
Electric Storage Heaters	3	0.17
Total Installs	1,759	100.00

Non-ECO funded measures	Number of records*	% of records
Battery Storage System	118	76.13
Qualifying Boiler replacement	15	9.68
Loft insulation (top up)	12	7.74
Cavity Wall Insulation	9	5.81
Internal Wall Insulation (solid wall)	1	0.65
Total Installs	155	100.00

Installed Measures by Financial year

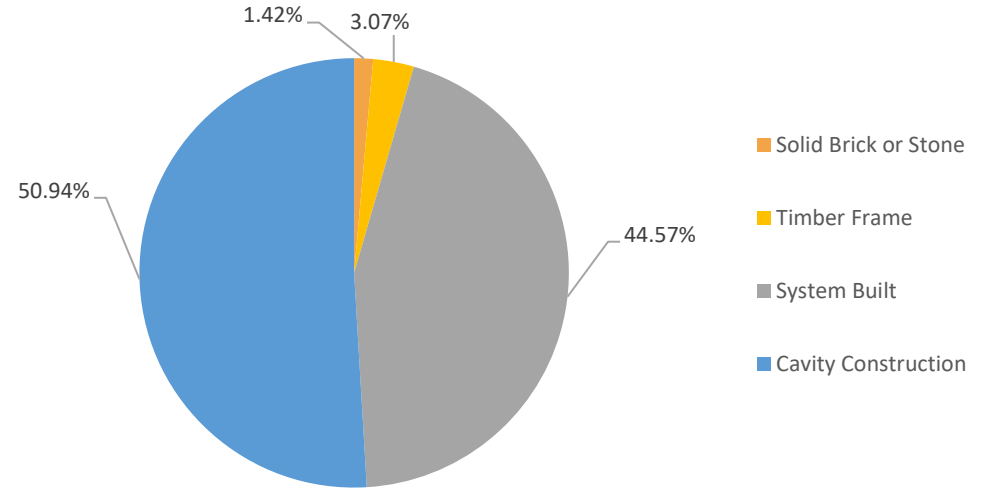


External Wall Insulation (EWI) has consistently formed a significant part of Clackmannanshire's EES: ABS programme each year. In addition, substantial phases of renewable energy installations, specifically photovoltaics and battery storage systems, were evident during the 2021/22, 2022/23, and 2023/24 financial years, accounting for 100%, 77%, and 70% of installations respectively in those periods.

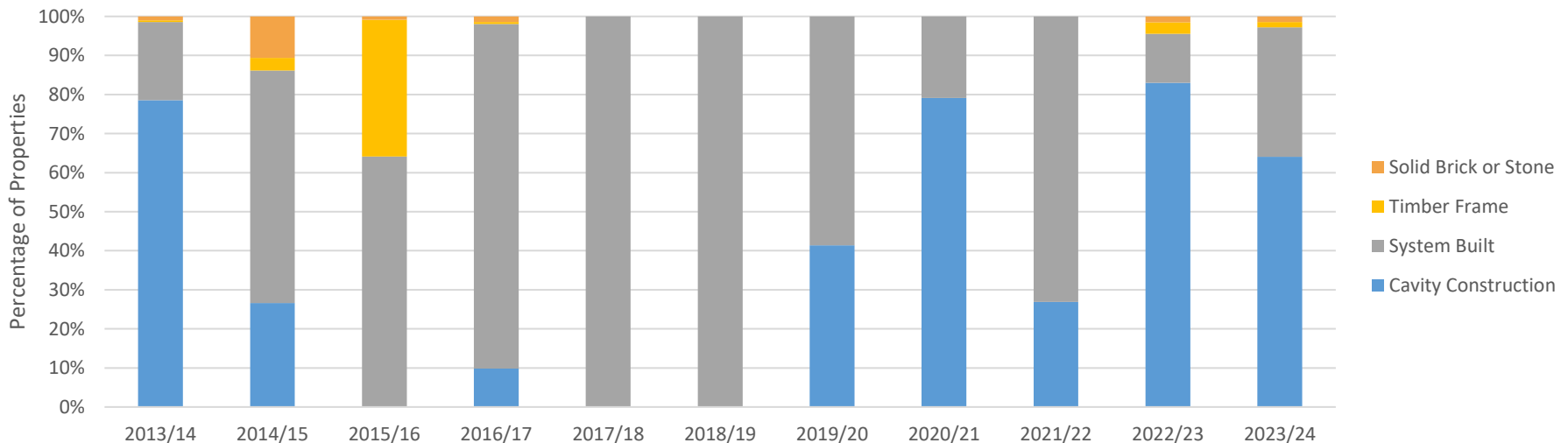
Wall Type

The chart on the right illustrates the distribution of various wall types included in the programme. Below, you can observe how these wall types have been allocated across the years.

EES: ABS Properties by wall type

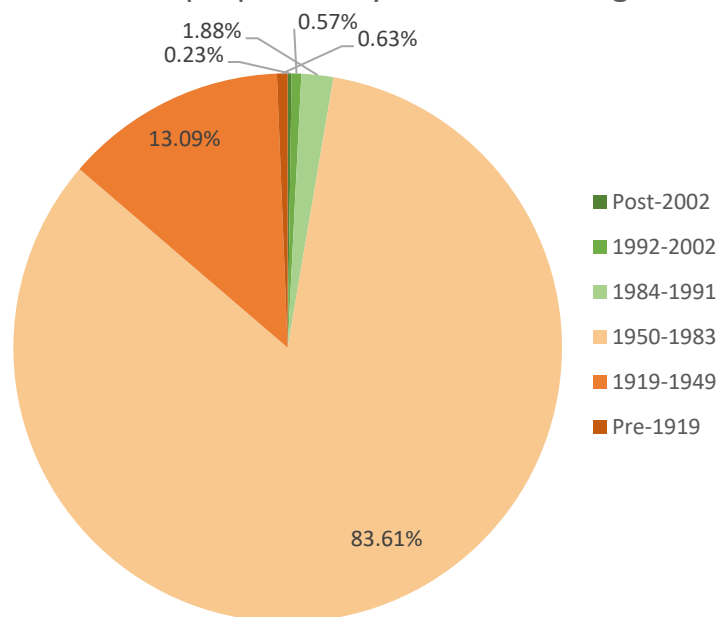


EES: ABS properties and construction type by financial year

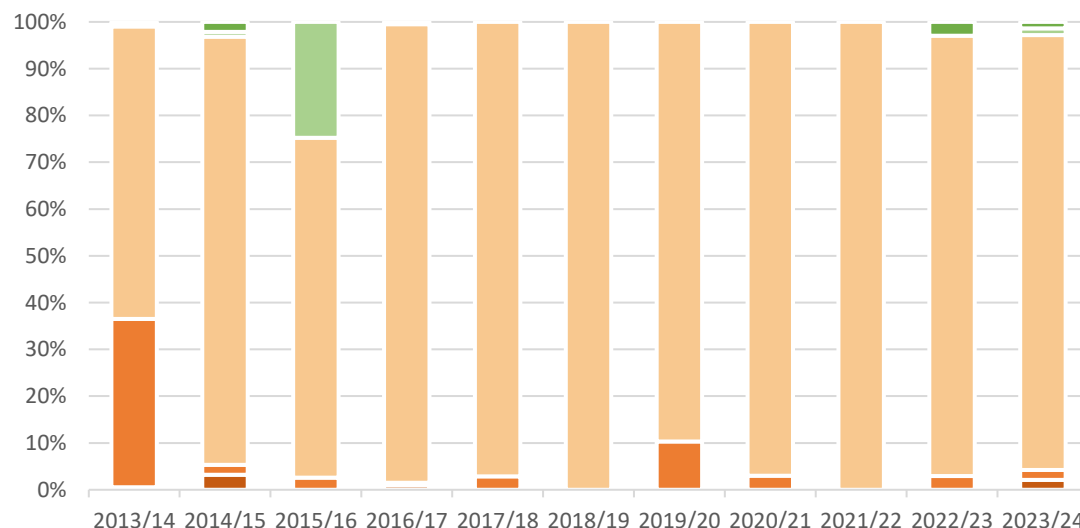


Construction Age

EES: ABS properties by construction age



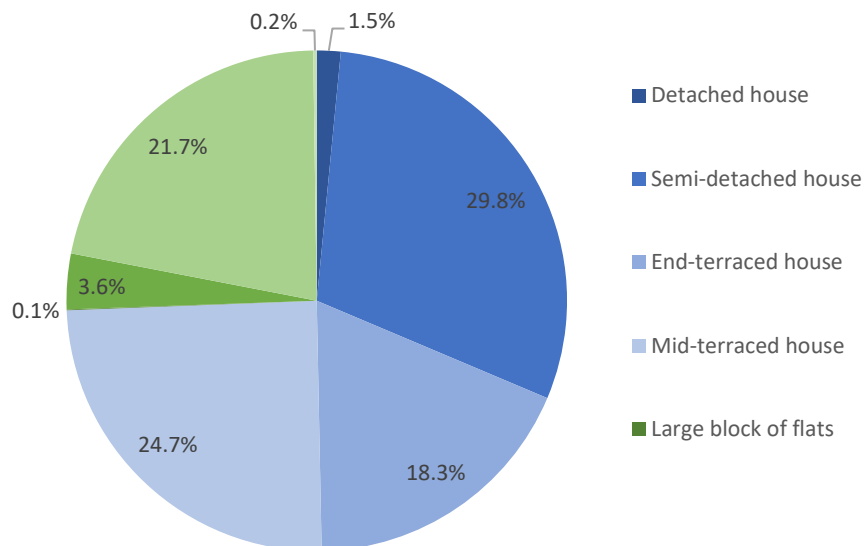
EES: ABS Properties and Construction Age by Financial Year



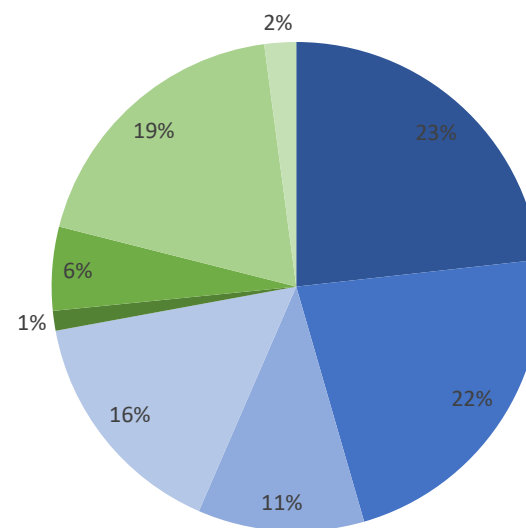
The majority of properties participating in the programme were built between 1950 and 1983 (83.61%), followed by those constructed between 1919 and 1949 (13.09%). The activity-by-year graph highlights the construction age groups represented throughout the programme's duration, with a notable concentration of 1919–1949 dwellings in the 2018/19 and 2021/22 financial years. Most of the older properties (built in 1950–1983 and earlier) are either system-built (46%) or of cavity wall construction (52%), with a small proportion (2%) comprising solid wall or timber frame construction.

Dwelling Type

EES: ABS properties by dwelling type



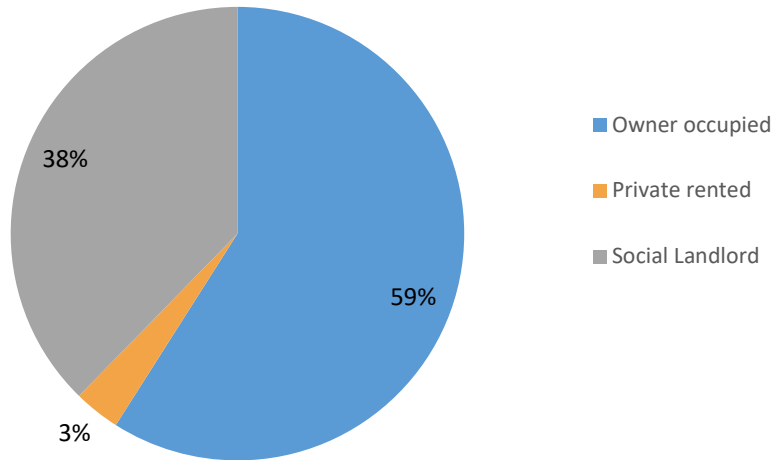
Clackmannanshire properties by dwelling type



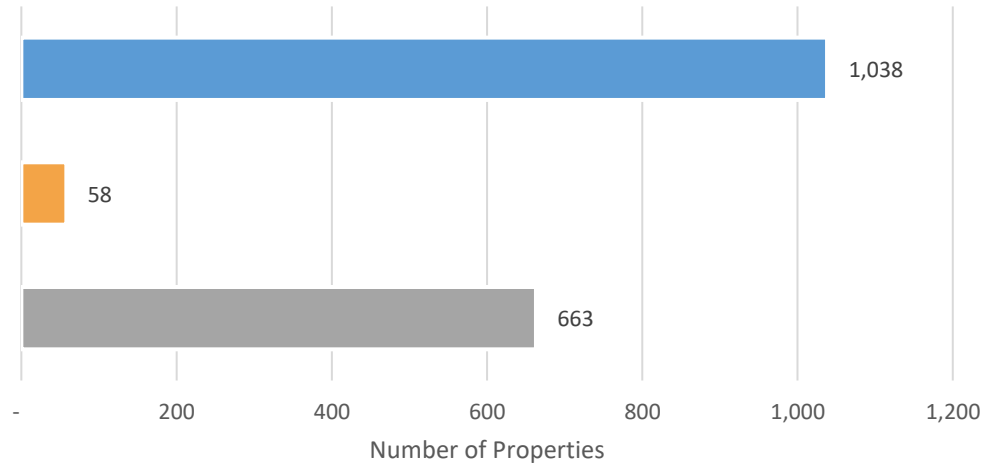
Clackmannanshire's programme has placed a strong emphasis on improving houses, which accounted for 74.4% of total installations, while flats received the remaining 25.6%. Given that the overall housing stock in Clackmannanshire consists of 72% houses and 28% flats, this indicates a slight underrepresentation of flats within the programme.

Property Tenure

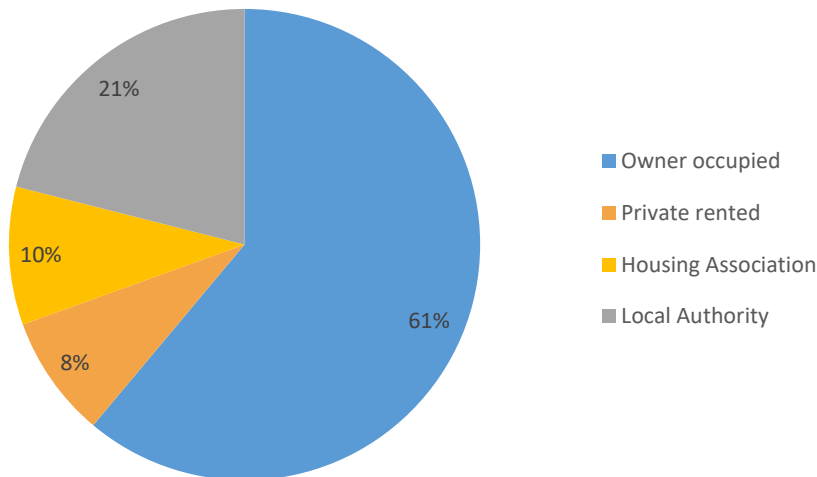
EES: ABS properties by tenure



EES: ABS properties by tenure



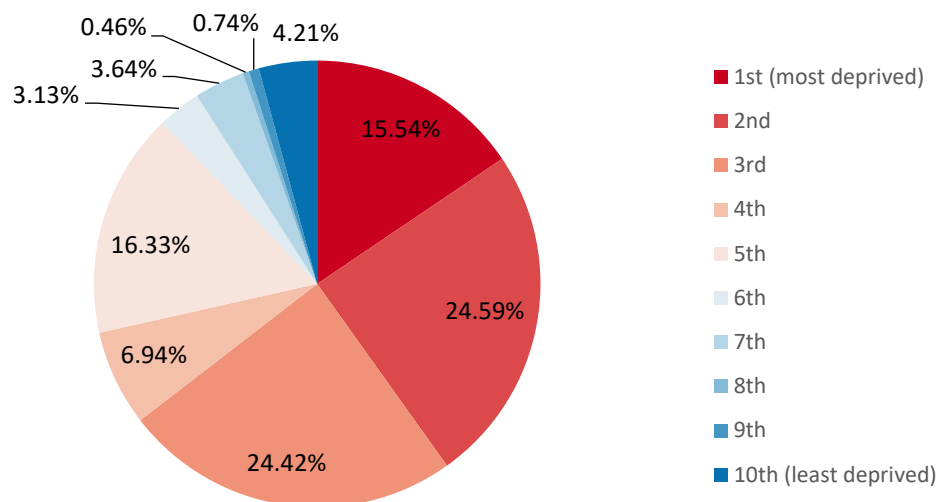
Clackmannanshire properties by tenure



Clackmannanshire Council actively targets mixed-tenure properties to ensure all tenure types are represented within designated programme areas. 38% of installations were in social landlord homes and 59% in owner-occupied homes.

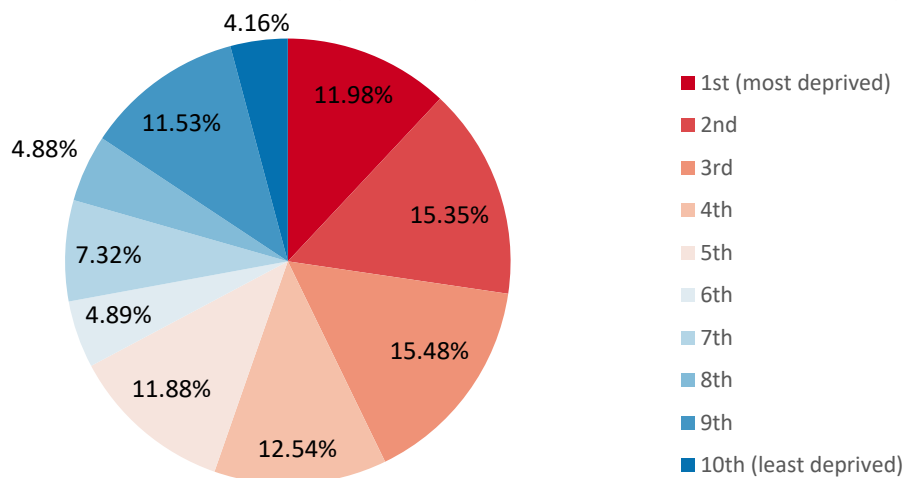
Scottish Index of Multiple Deprivation (SIMD) I

EES: ABS properties by overall SIMD decile ranking



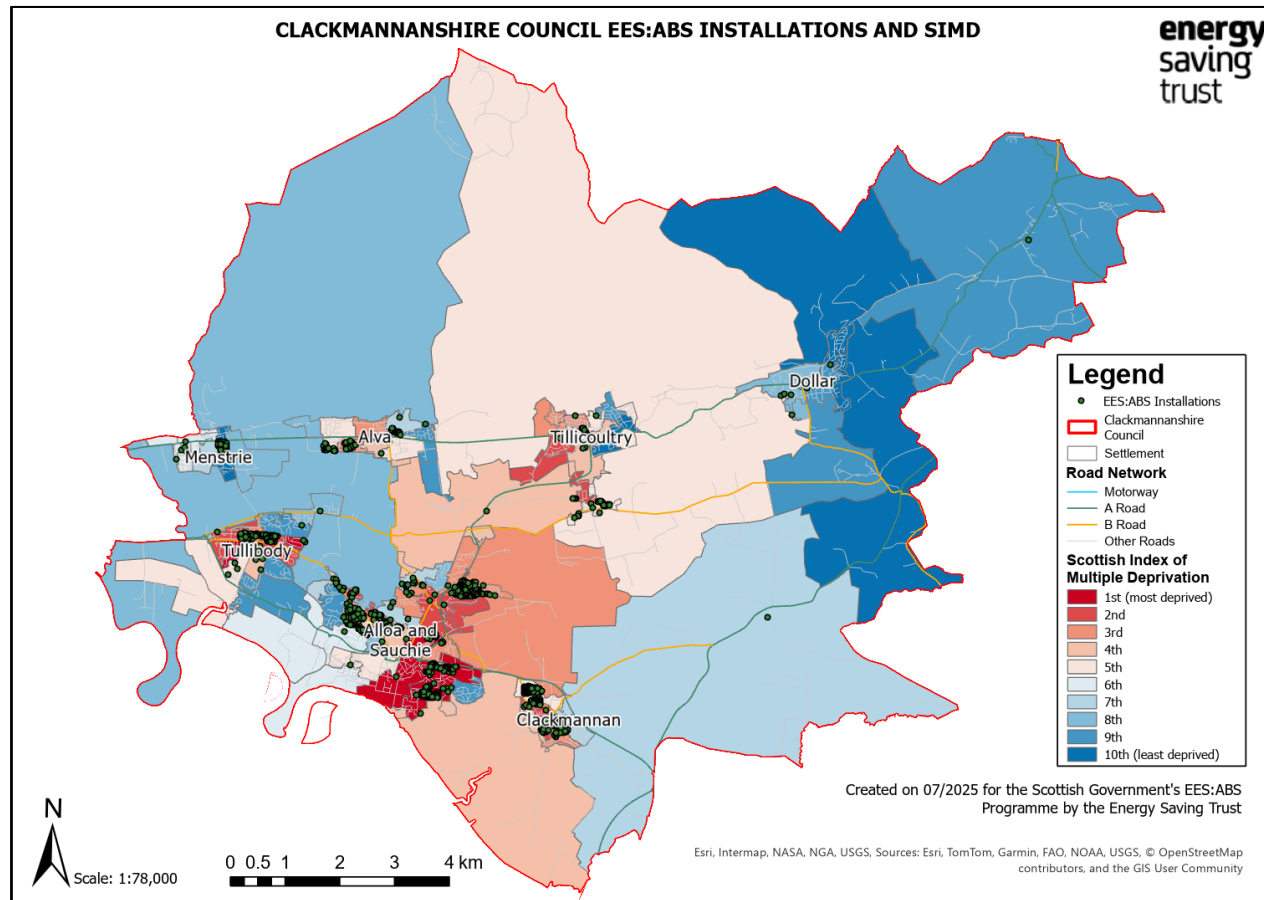
A comparison of the two illustrations reveals a strong correlation between the overall SIMD ranking of Clackmannanshire Council properties (bottom graph) and those targeted by the EES: ABS programme (top graph), with 90.9% of participating properties located in the six lowest SIMD ranks.

Clackmannanshire properties by overall SIMD decile ranking



However, it's important to note that SIMD can be a slightly unreliable indicator in rural areas, as large data zones required to meet population thresholds may group both deprived and non-deprived households, skewing rankings toward the median. While the programme likely benefits deprived areas, SIMD alone may not fully capture the extent of this impact.

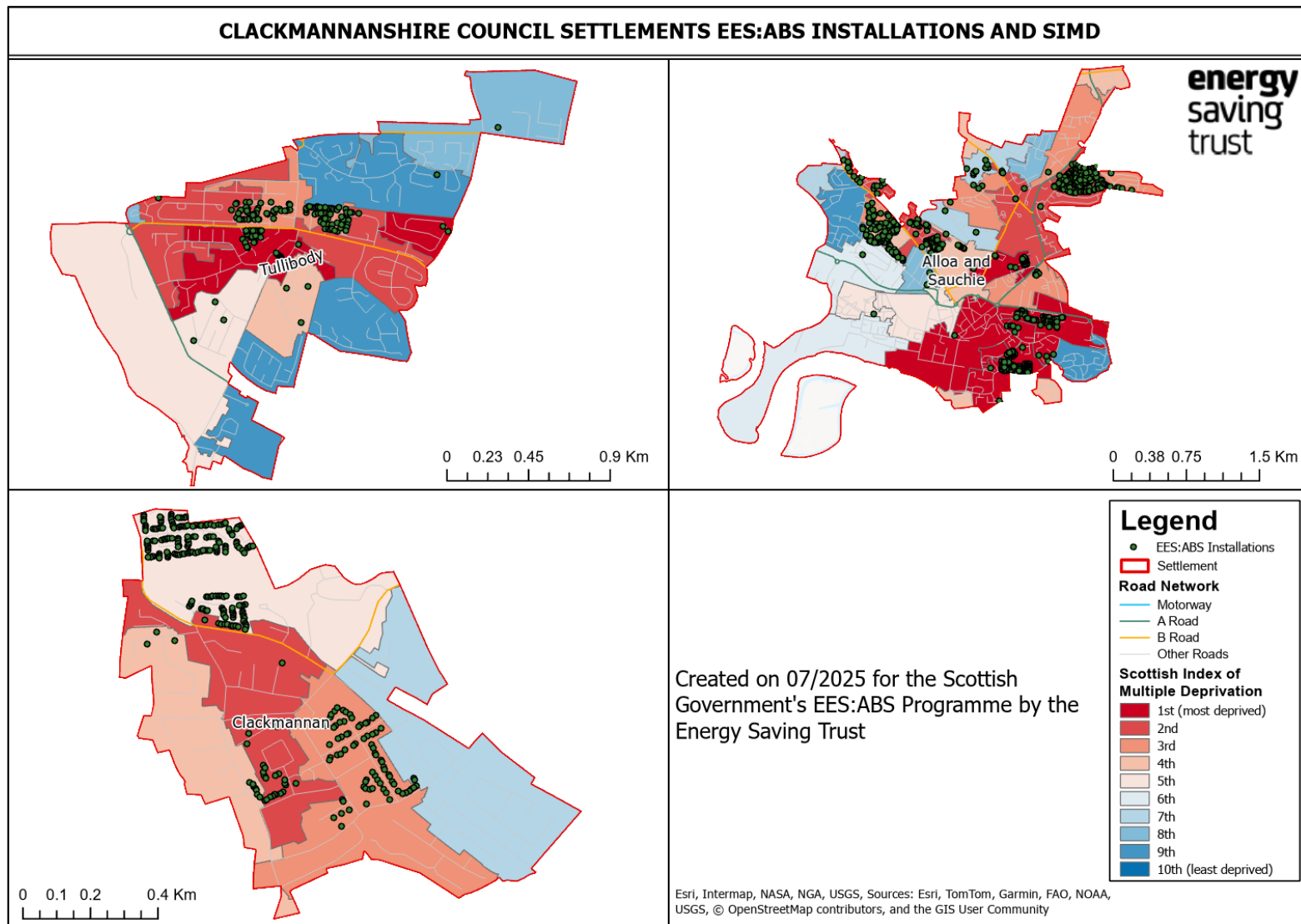
Scottish Index of Multiple Deprivation (SIMD) II



The Alloa and Sauchie settlements serve as key examples of EES: ABS installations in Clackmannanshire. These moderately populated, mixed-tenure areas received a combination of cavity wall insulation (CWI), external wall insulation (EWI), loft insulation, photovoltaics, and qualifying boiler replacements. Both areas are highly deprived, with a significant concentration of

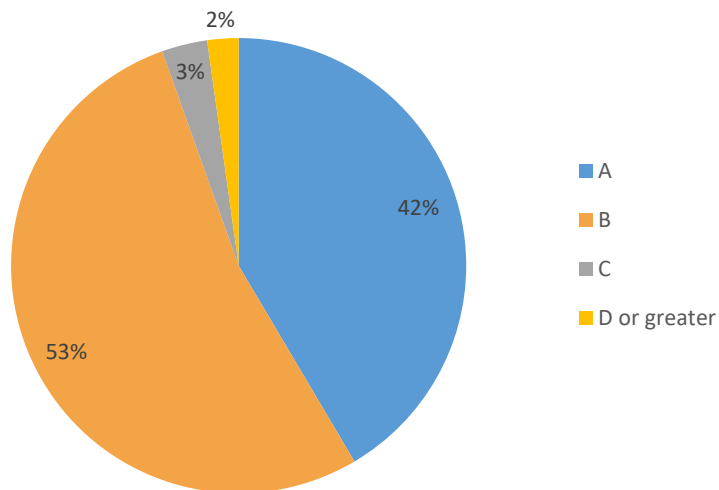
properties ranked in the lowest SIMD categories, particularly in the income and housing domains. The approach taken aligns closely with the objectives outlined in Clackmannanshire Council's Energy and Carbon Masterplan, which aims to decentralise energy sources, reduce carbon emissions, and support households most affected by fuel poverty.

Scottish Index of Multiple Deprivation (SIMD) III

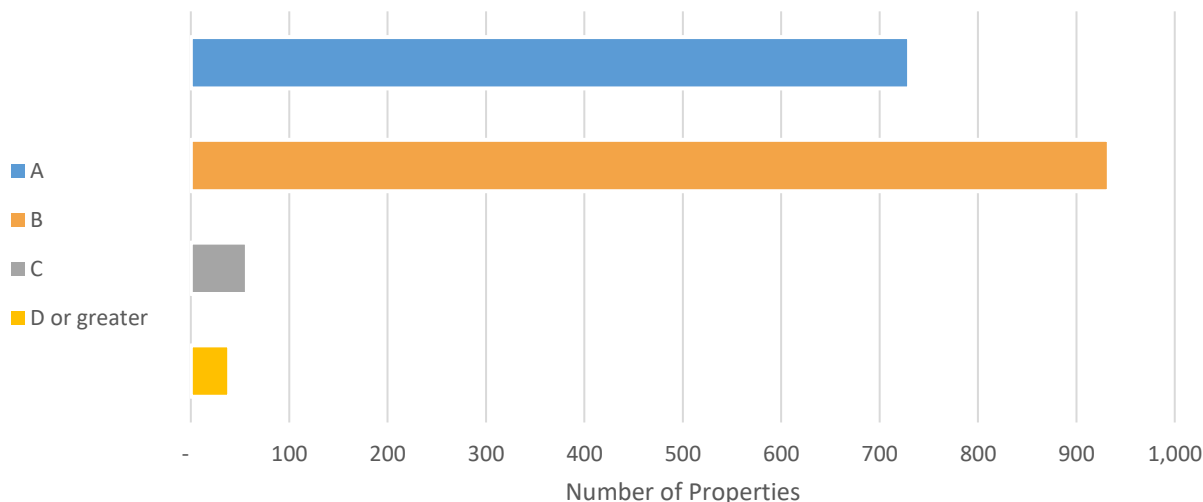


EES: ABS Installs by Council Tax Band

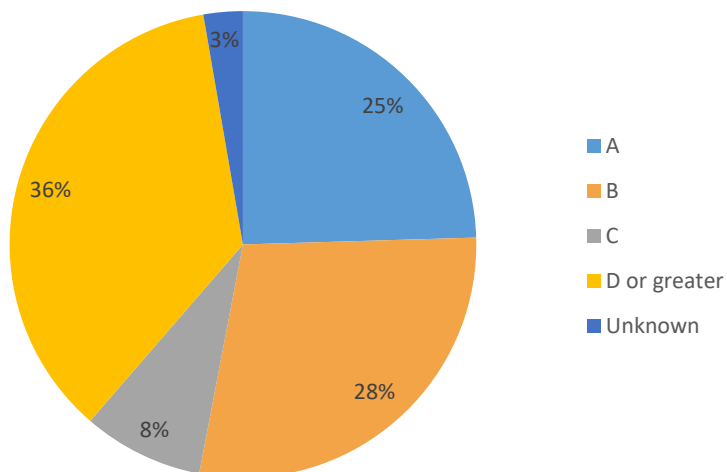
EES: ABS properties by council tax band



EES: ABS properties by council tax band



Clackmannanshire properties by council tax band

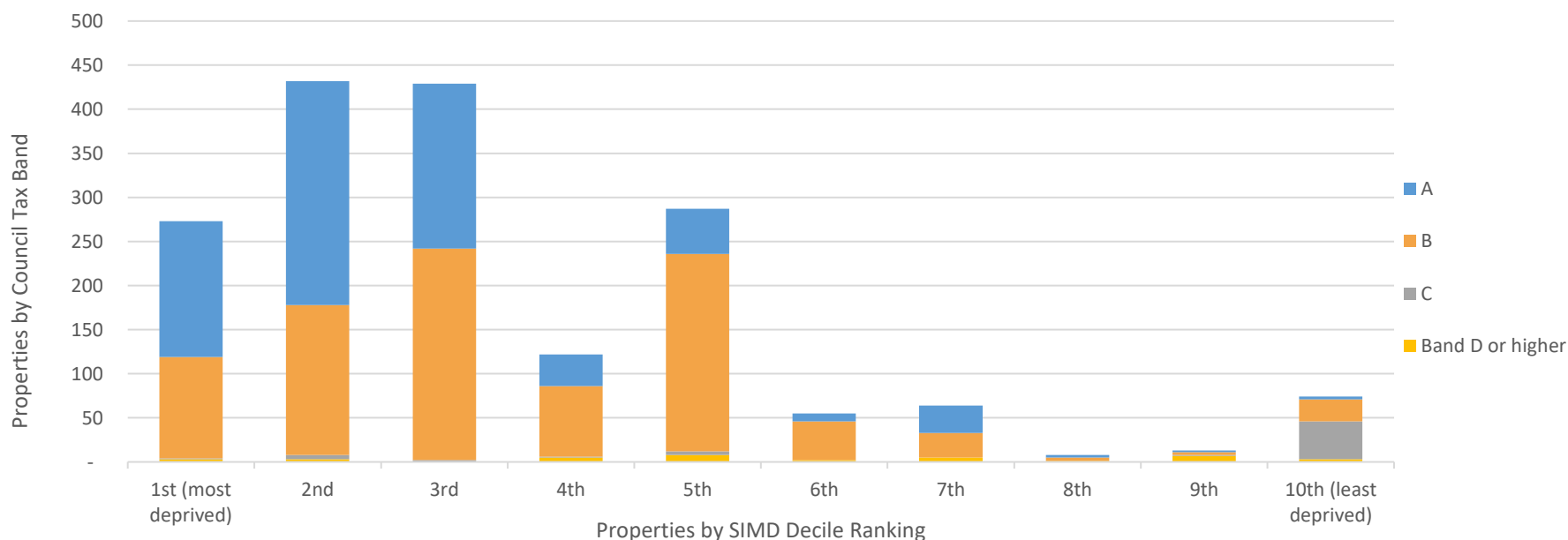


Over 97.8% of properties receiving measures fall within Council Tax bands A, B, and C, compared to 61.4% across Clackmannanshire as a whole. This demonstrates strong alignment with the scheme's primary objective of targeting lower-band properties.

EES: ABS Installs by Council Tax Band and SIMD

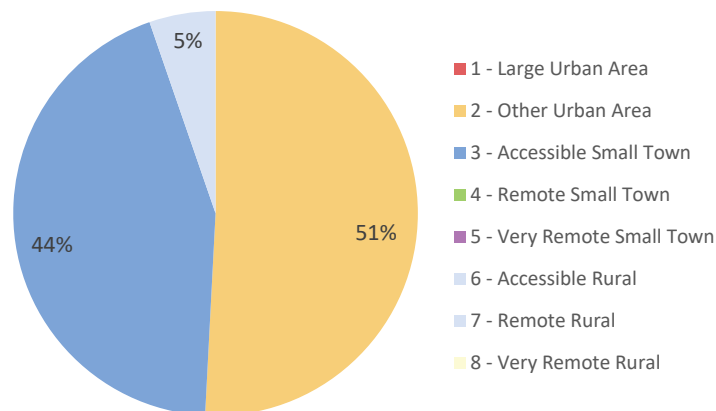
Council Tax banding is often used as a proxy for income, and the illustration below compares property Council Tax bands with the income-based SIMD rankings of the areas involved. Notably, 88.6% of installations targeting properties in bands A, B, and C are located within the five most income-deprived SIMD areas, highlighting the programme's strong focus on supporting low-income households.

EES: ABS properties by council tax and overall SIMD decile ranking



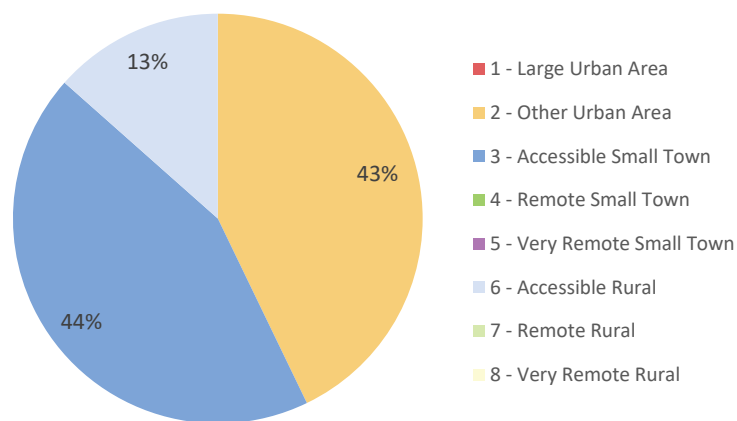
Urban Rural Classification I

EES: ABS properties by urban rural classification

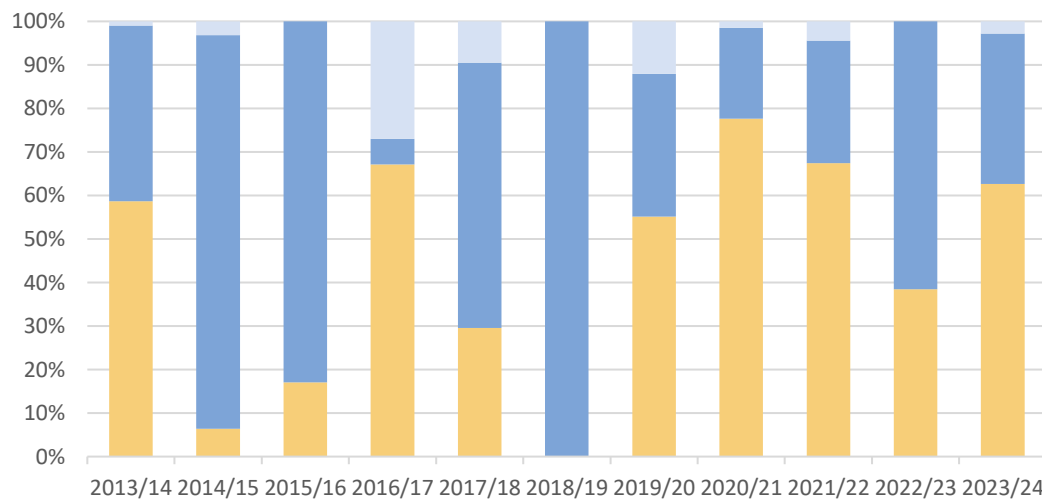


Clackmannanshire comprises three urban-rural classifications: Other Urban Area, Accessible Small Town, and Accessible Rural. All three have been represented in the EES: ABS programme, with a significant focus of 95% of installations occurring in the Other Urban and Accessible Small-Town areas. The remaining 5% took place in Accessible Rural areas. The bottom chart illustrates the year-on-year distribution of work across these classifications.

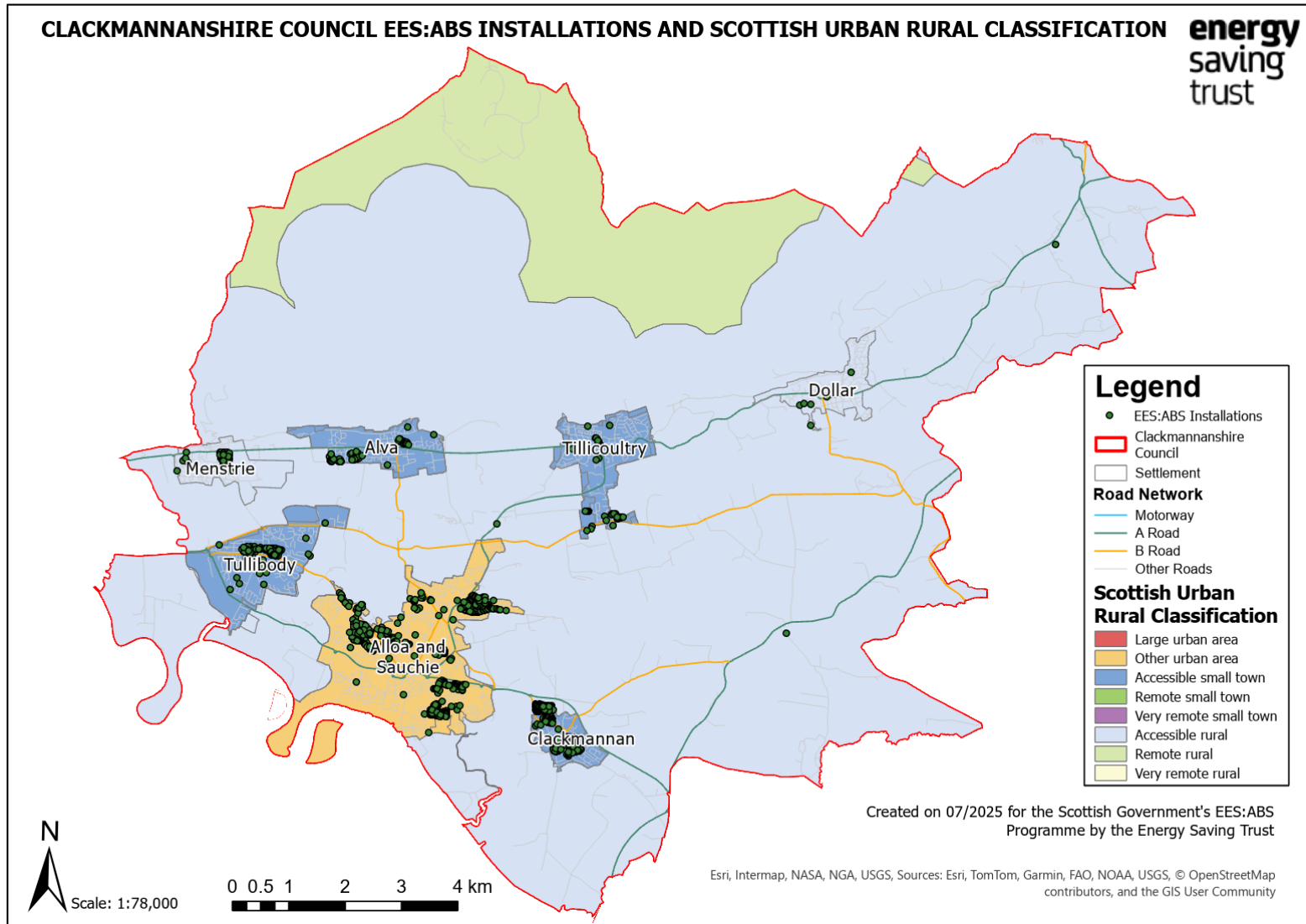
Clackmannanshire properties by urban rural classification



EES: ABS properties by urban rural classification



Urban Rural Classification II

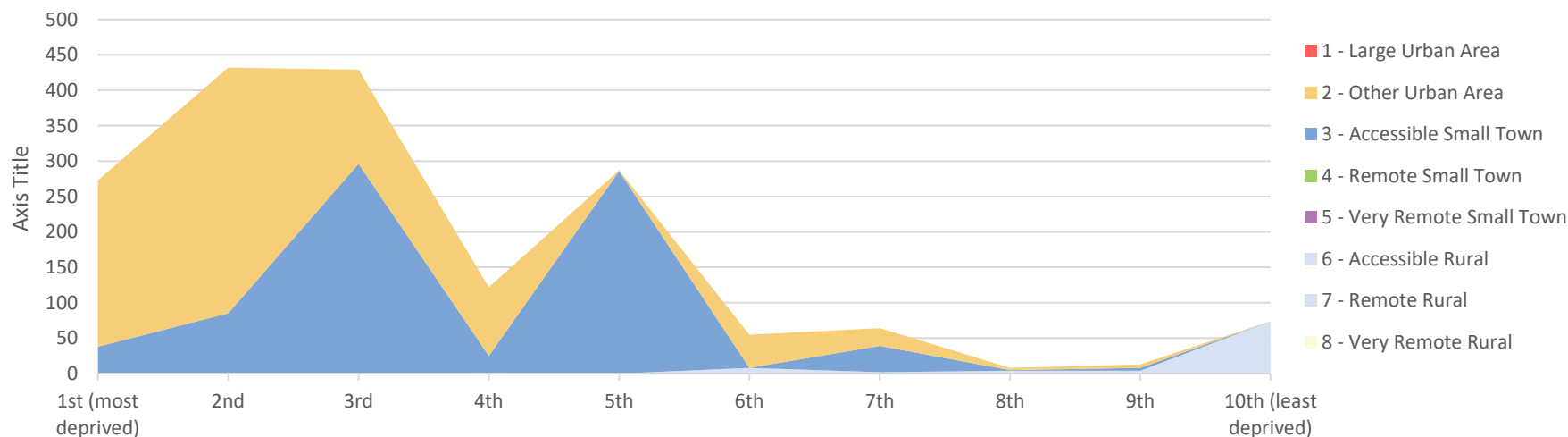


Urban Rural Classification and SIMD

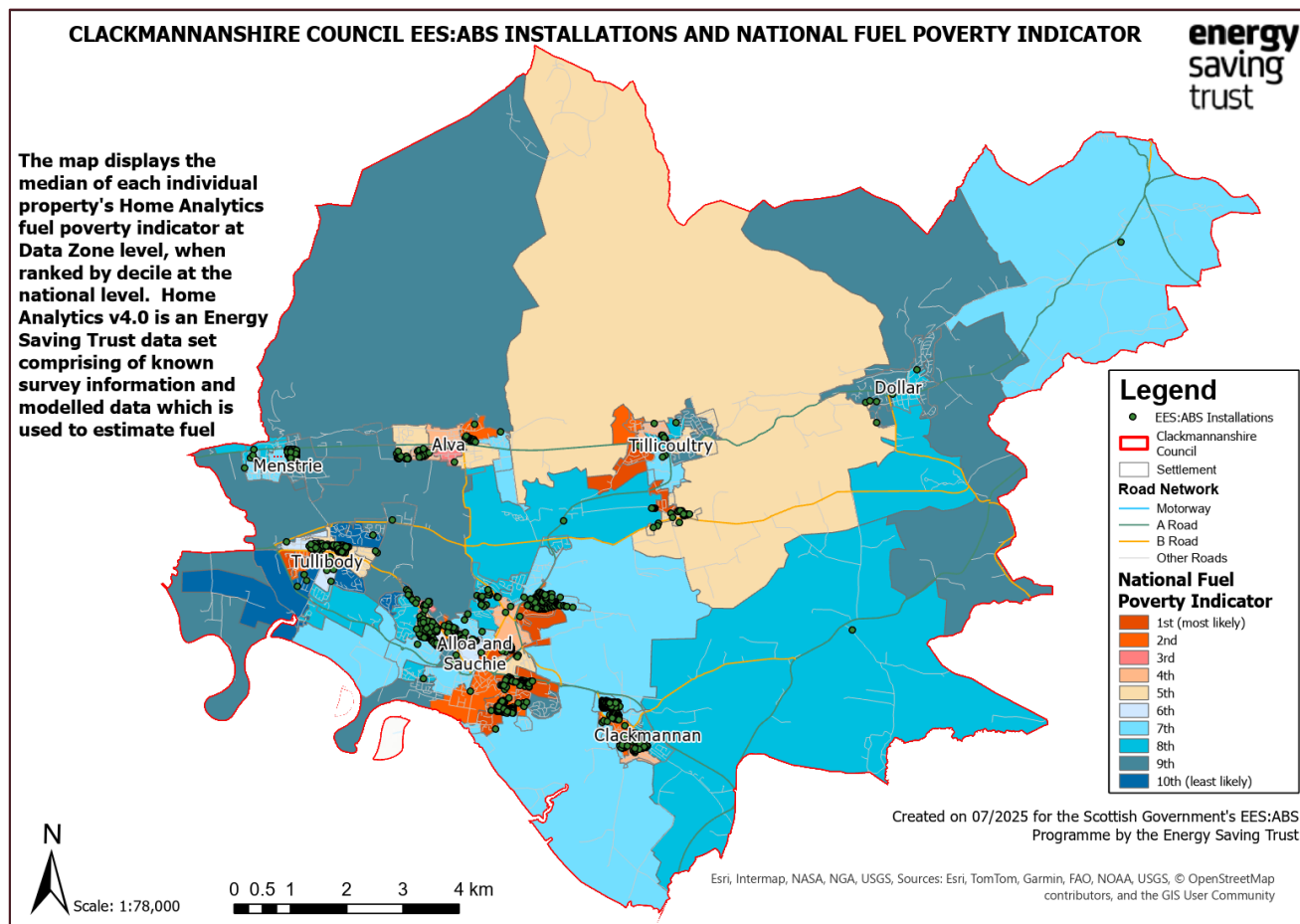
This illustration shows that 87.8% of work completed within the five most deprived SIMD ranks occurred in 'Other Urban' and 'Accessible Small Town' areas.

While urban-rural classification is represented in the programme, Clackmannanshire Council does not consider it a primary criterion for property selection. Instead, factors such as SIMD ranking, Council Tax band, household income, and property condition are prioritised. Additionally, it's important to note that rural data zones often lean toward average SIMD rankings due to their large catchment areas, and not all deprived households reside in highly deprived zones, making SIMD an imperfect measure in rural contexts.

EES: ABS Properties by Urban Rural Classification and SIMD Overall Decile Ranking



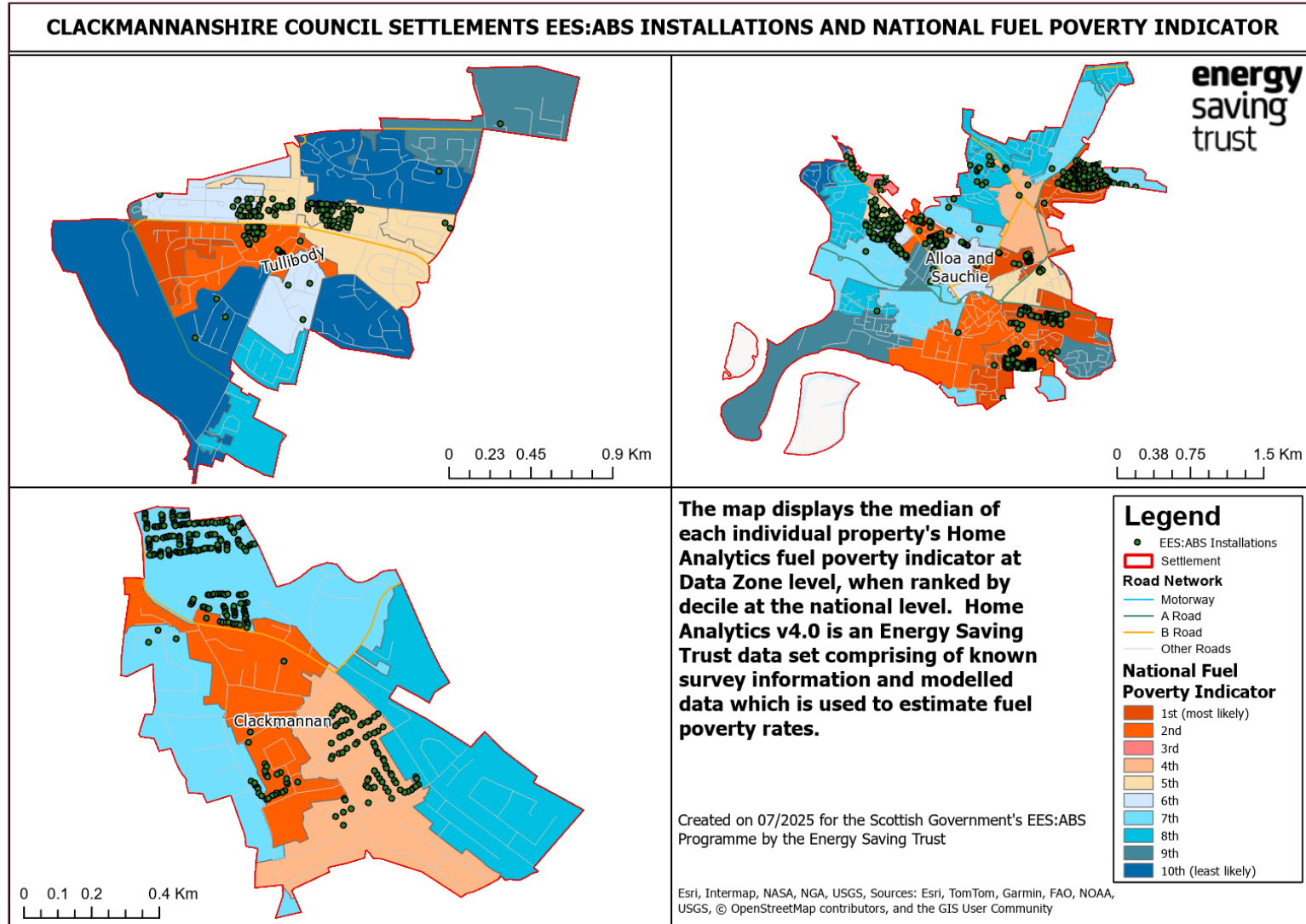
National Scottish Fuel Poverty Indicator I



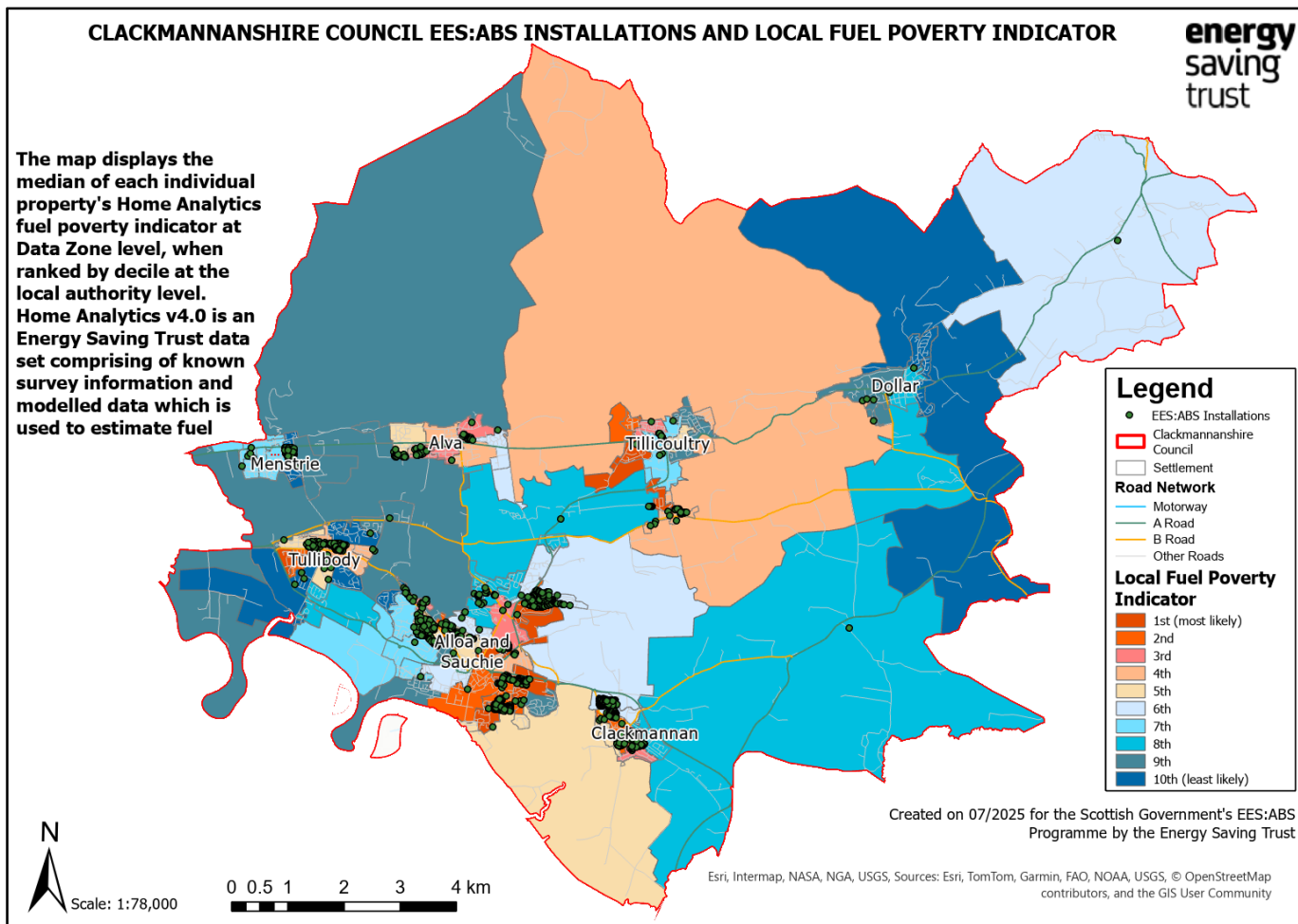
The map illustrates fuel poverty levels in Clackmannanshire Council compared to the rest of Scotland, with blue areas representing the lowest rates nationally based on Data Zone rankings. According to the Scottish Housing Condition Survey (SHCS), Clackmannanshire has a fuel poverty rate of 24%, which matches the national average.

This places Clackmannanshire 12th out of 32 local authorities in Scotland, indicating a mid-range position in terms of fuel poverty levels.

National Scottish Fuel Poverty Indicator II



Clackmannanshire Fuel Poverty Indicator I

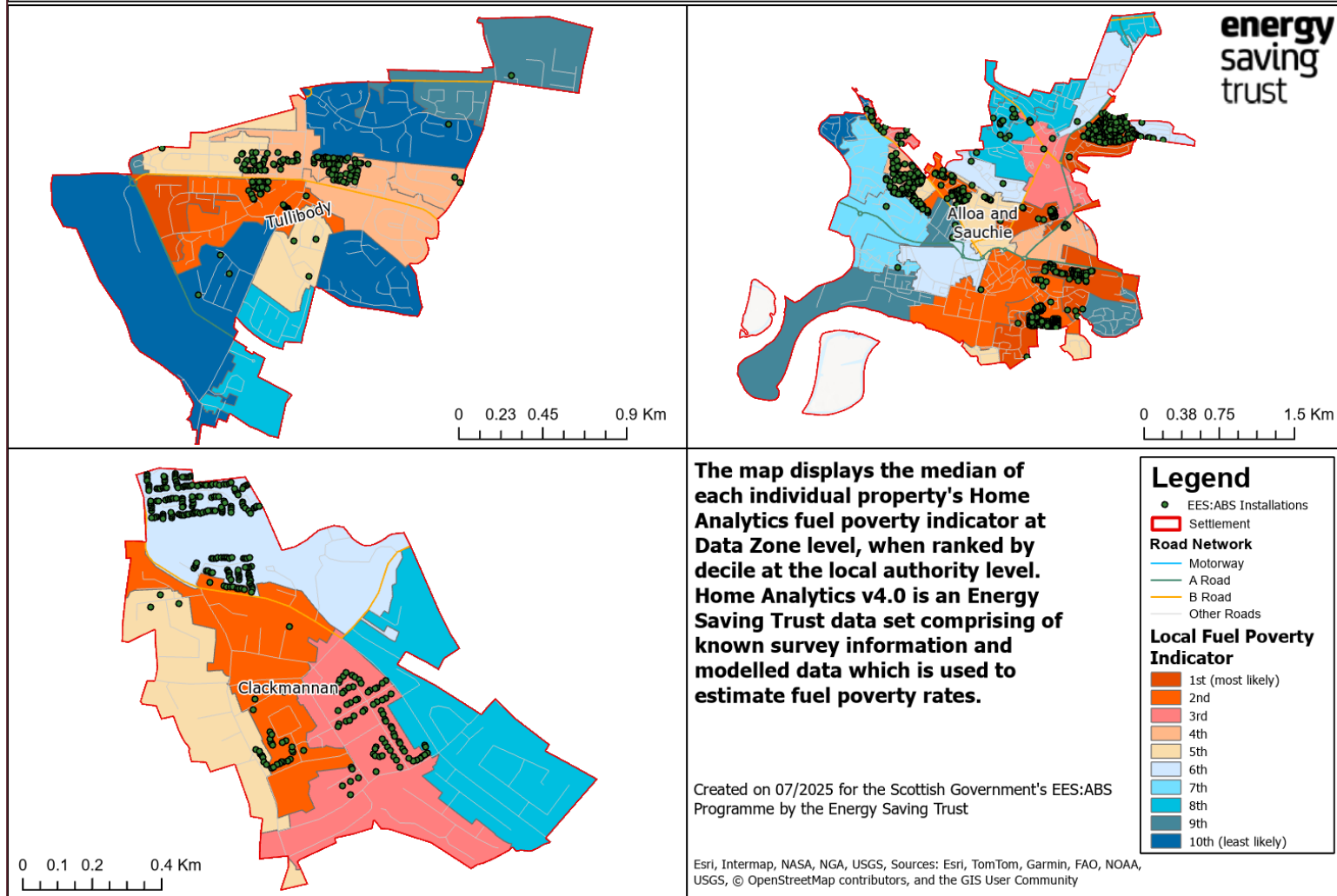


This map illustrates the probability of fuel poverty by Data Zone within Clackmannanshire Council, ranked at the local authority level. Areas with the highest fuel poverty rates are shown in red. It's important to note that this indicator provides a snapshot in time, and past energy efficiency interventions, such as those delivered through the

EES:ABS programme may be contributing to the currently lower fuel poverty rates in some zones.

Clackmannanshire Fuel Poverty Indicator II

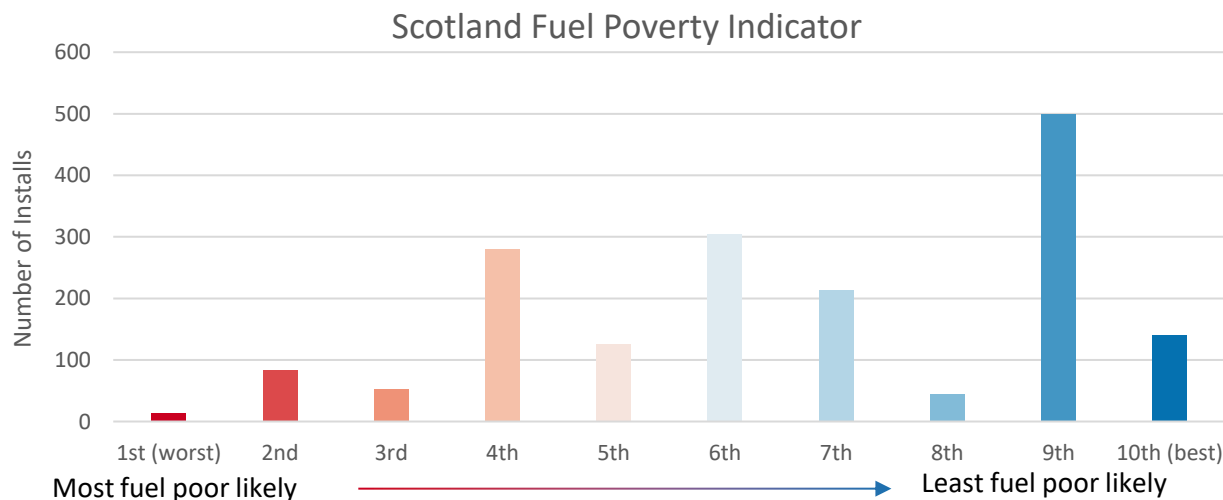
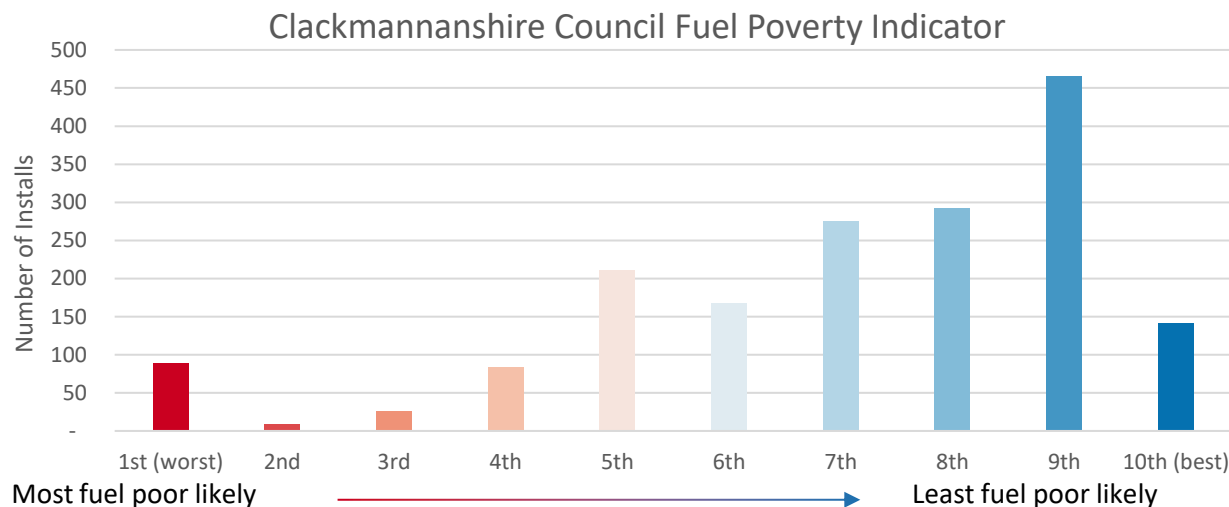
CLACKMANNANSCHIRE COUNCIL SETTLEMENTS EES:ABS INSTALLATIONS AND LOCAL FUEL POVERTY INDICATOR



Clackmannanshire Fuel Poverty Indicator II

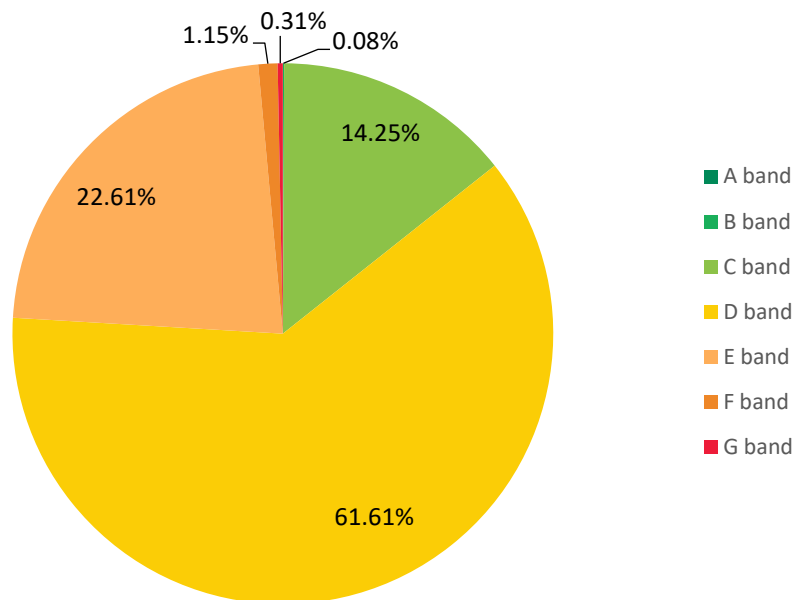
Just over 23% of all Clackmannanshire's EES: ABS installs took place within the five most fuel poor ranked data zones as seen in the top illustration. This is looking at the local authority specific fuel poverty indicator for the Clackmannanshire Council.

The bottom chart shows the difference when the installs are looked at on a national scale for Scotland. 31.5% of the installs are within the five most fuel poor ranks when compared to the national figures.

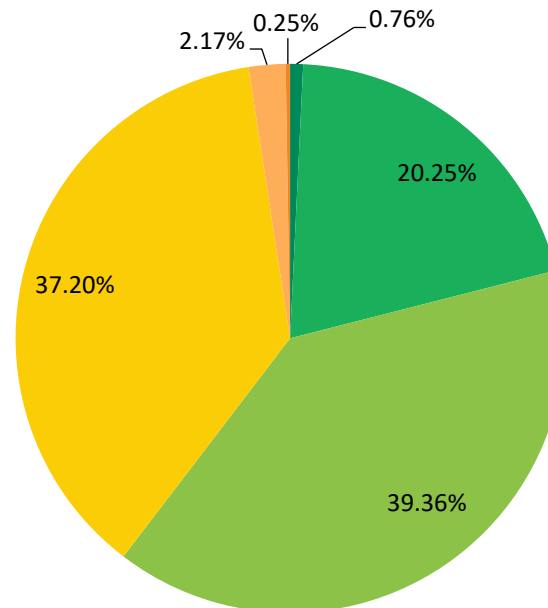


EES: ABS SAP Band Analysis I

EES: ABS properties by pre-installation EPC banding



EES: ABS properties by post-installation EPC banding



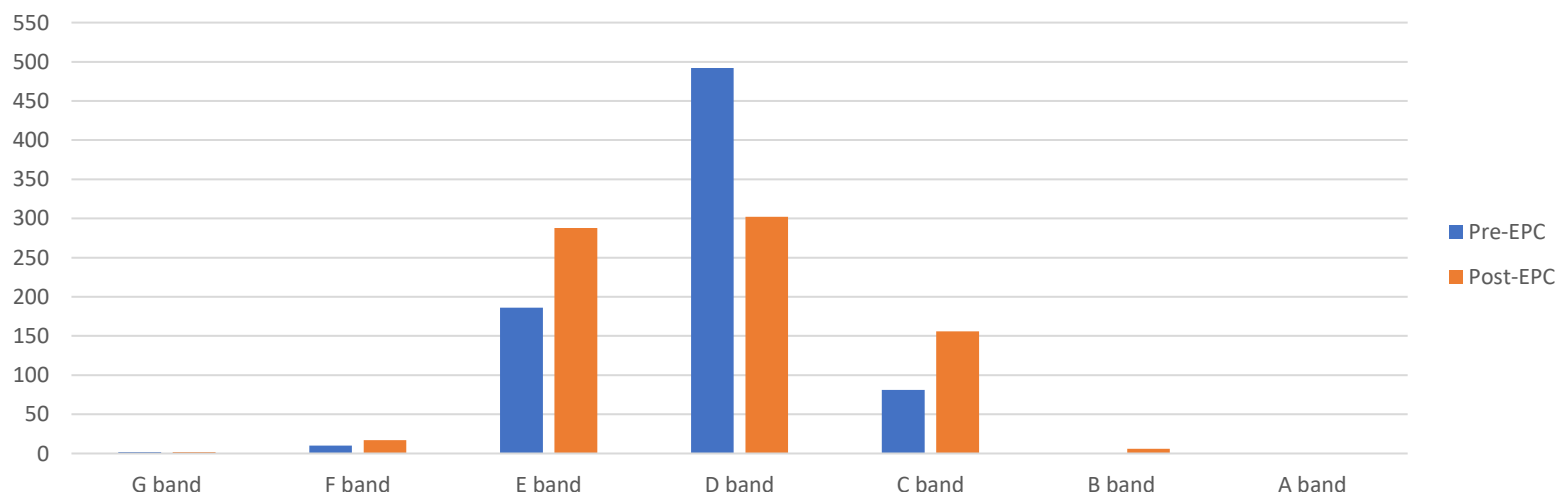
A valid pre-installation EPC was provided for 1,305 properties participating in the programme. 85.67% of these were within the national band D average or lower.

A total of 785 participants had a valid post-installation EPC regardless of the validity of the pre-EPC. After the completion of the installs, 60.38% of these properties made it to band C or higher. 37.20% were at a band D, and only 2.42% remained with a lower score of E, F or G.

EES: ABS SAP Band Analysis II

Out of the 1,305 properties with valid pre-EPCs, a total of 771 had a valid pre- and post-installation EPC and can be used for further analysis. 89.49% of these 771 properties had a starting SAP band of D or lower. The Post-EPC's show that after the completion of installs, 20.23% of the properties reached band C, and 39.17% reached band D. Six properties also moved up to band B. 39.82% of the properties remained with a post-installation EPC band of E, F or G, despite of the impact of the EES: ABS treatment.

EES: ABS properties by EPC banding

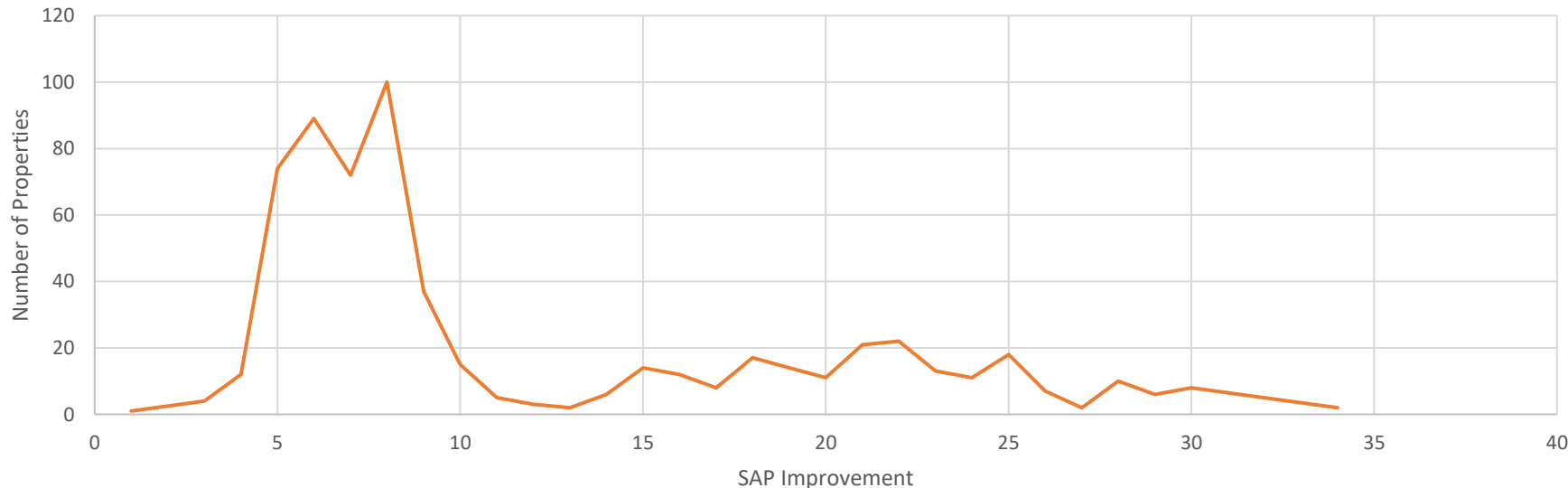


EES: ABS SAP Band Analysis III

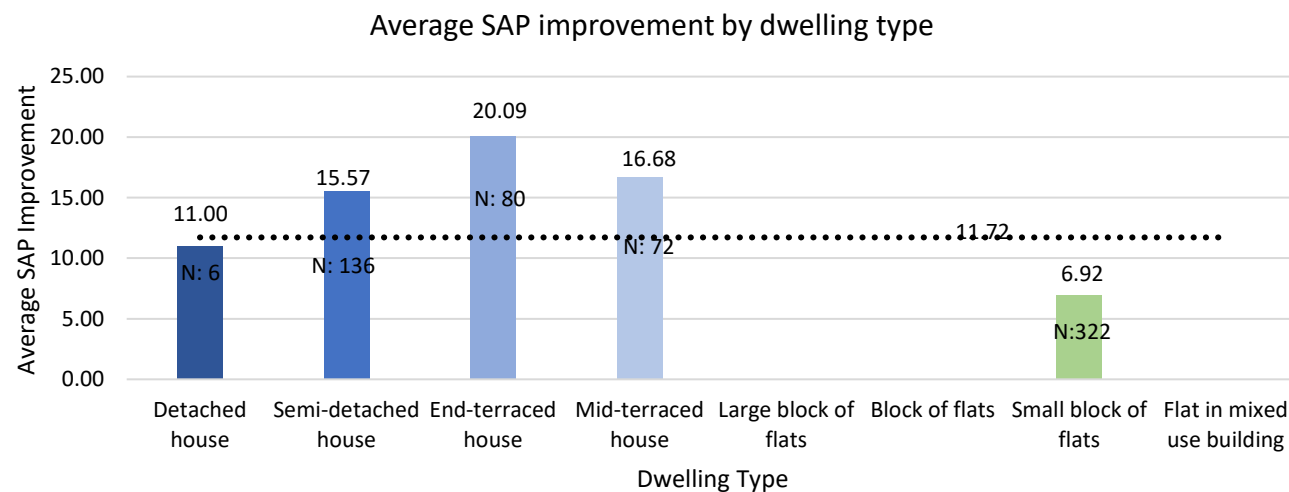
The most common outcome of the EES: ABS programme was for a property to increase in SAP score for around 5 to 10 points (63% of properties where the EPC's were valid to use for further analysis).

The larger SAP increases (25 to 34 points) included in this case study were due to installation of photovoltaics, EWI and CWI solution within the semi detached, mid and end-terraced houses.

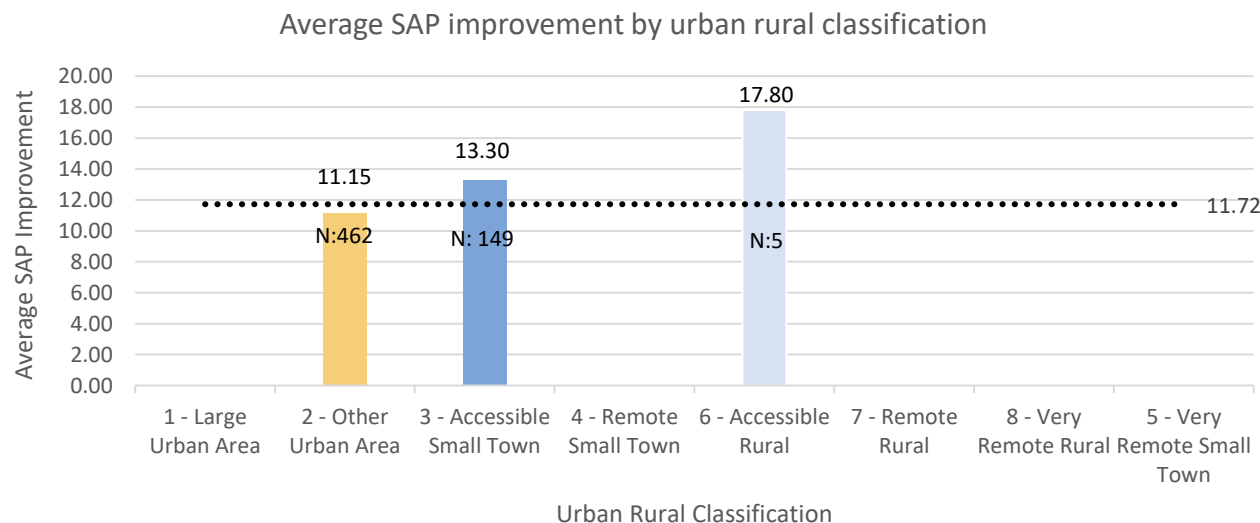
EES: ABS Property Count by SAP Improvement



EES: ABS SAP Band Analysis IV

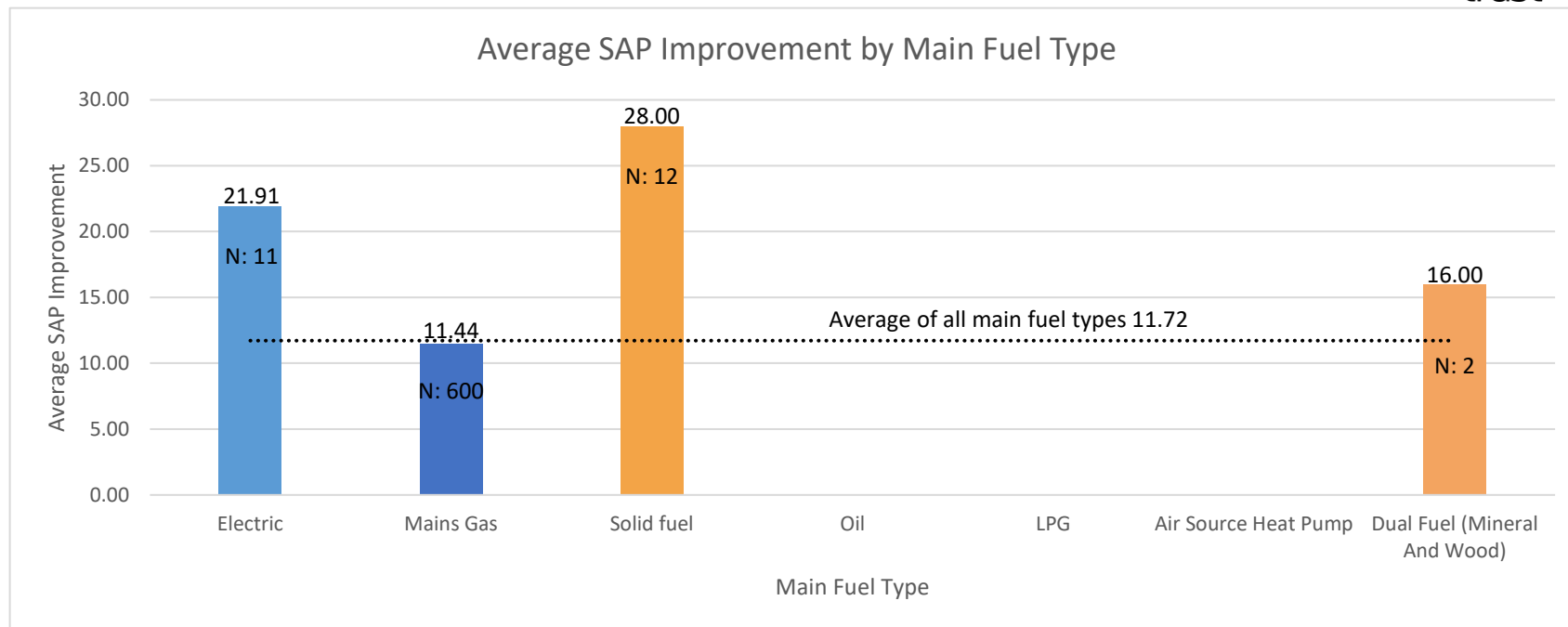


The average SAP improvement for all dwelling types was 11.72 points. End-detached houses saw the highest gain (20.09), followed by mid-terraced houses (16.68), while small blocks of flats improved by 6.92 points.



Across all urban classifications with available data, the average SAP improvement was 11.72. The largest sample was for other urban area (N=462) with an average improvement of 11.15

EES: ABS SAP Band and Main Fuel Type



From the available data, the average SAP improvement across all main fuel types was 11.72 points. Mains gas properties, the largest sample (N=600), saw an average improvement of 11.44 points. Although electric-heated properties showed the highest improvement at 12.00 points, this result is based on a single record. Properties with electric heating improved by their SAP rating by 21.91 on average, and dual fuel properties by 16.00. Solid fuel type recorded the highest improvement of 28.00.

Conclusions and notes

- A variety of measures have been included in the programme since outset and the last three years have focused majorly on installation of PV and Battery Storage Systems .
- The typical participating property is within the owner-occupied or housing association sector and constructed between 1950 and 1983. The main property type was a house with a system built (46%) or cavity wall construction (52%).
- 91% of the participating properties can be found within the six most deprived SIMD areas, and 33% of all EES: ABS installs took place within the five most fuel poor ranked data zones.
- Most properties had a starting EPC of band D or lower (86%) and 60% of these properties reached band C or higher.
- The programme had a positive impact on the participating properties as a whole and most properties used for this analysis increased their SAP score between 5 to 10 points.

Sources

Variable	Source	Notes
EES: ABS Measure, Address and Tenure	Local Authority	Held behalf of the Scottish Government's EES: ABS programme by EST.
Dwelling Type, Construction Age, Council Tax Band, Fuel Poverty Probability	Home Analytics	Combination of EPC and modelled data created by EST. Typically not for publication.
Main heating fuel type, EPC SAP scores and bands	Scottish EPC register	Obtained by cross referencing EPC Report Reference Numbers provided by the local authority with Scottish EPC register extracts
Scottish Housing Condition Survey	Scottish Government	Available online. SHCS 2017-19 used.
SIMD	Scottish Government	Available online. SIMD 2020 used.
Urban Rural Classification	Scottish Government	Available online. 8-Fold classification (2020) used.

An extra thanks to Iain McIntyre and his colleagues in Clackmannanshire council who provided the install data and assisted with the completion of the case study.

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