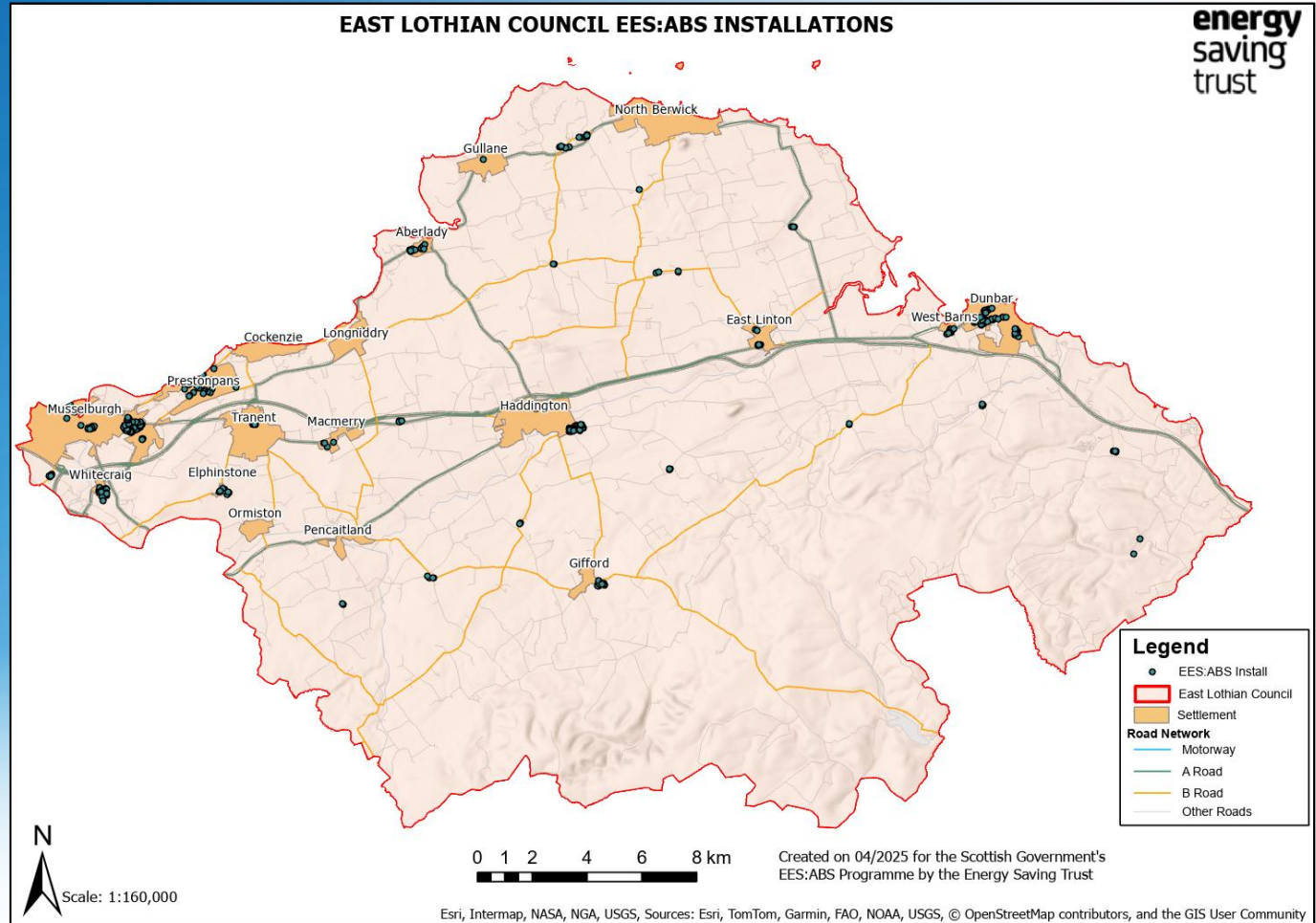


# East Lothian Council EES: ABS Case Study

energy  
saving  
trust

Energy Saving Trust  
April 2025



# 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 East Lothian Council EES: ABS activity reported to date (April 2025).\*\*

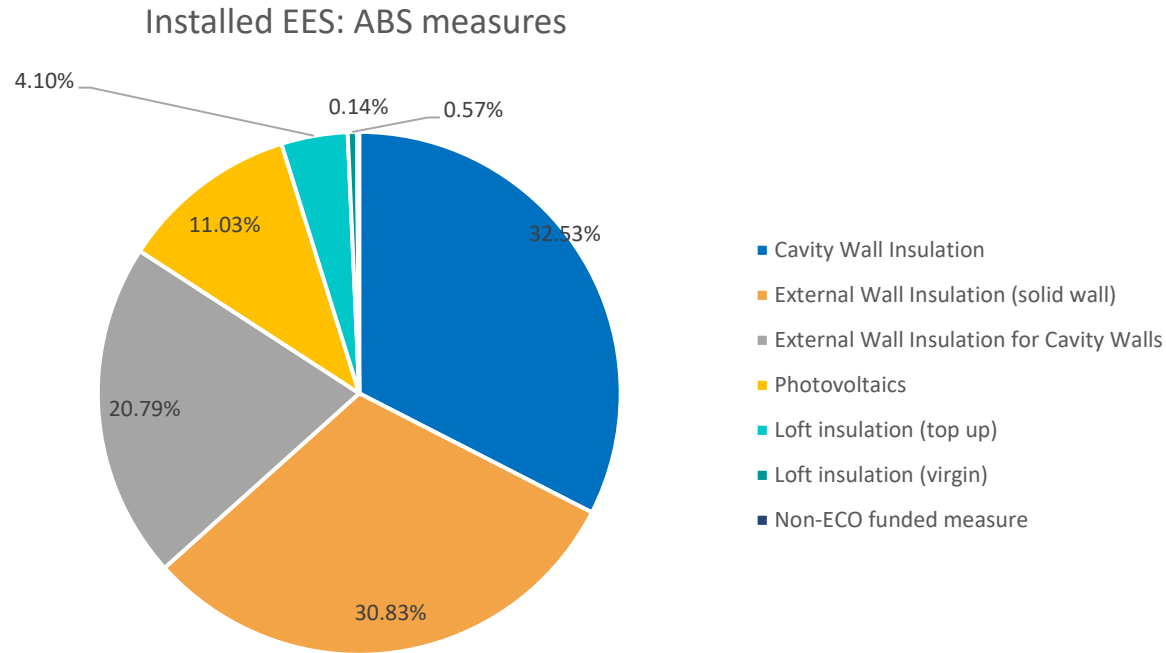
# East Lothian Council EES: ABS dataset

Financial Year	Number of records*	% of records
2013/14	299	23.43
2014/15	264	20.69
2015/16	61	4.78
2016/17	0	0.00
2017/18	56	4.39
2018/19	21	1.65
2019/20	169	13.24
2020/21	128	10.03
2021/22	21	1.65
2022/23	130	10.19
2023/24	127	9.95
<b>Total Installs</b>	<b>1,276</b>	<b>100.00</b>

Reference numbers	Number of records	% of records
With pre-installation EPC	569	80.48
With post-installation EPC	631	89.25
With pre and post-installation EPC	528	74.68
With GDAR	0	0.00
With measure reference number	0	0.00

East Lothian Council has contributed 0.98% of the total EES: ABS installs across Scotland reported to date (April 2025).

# Installed Measures I



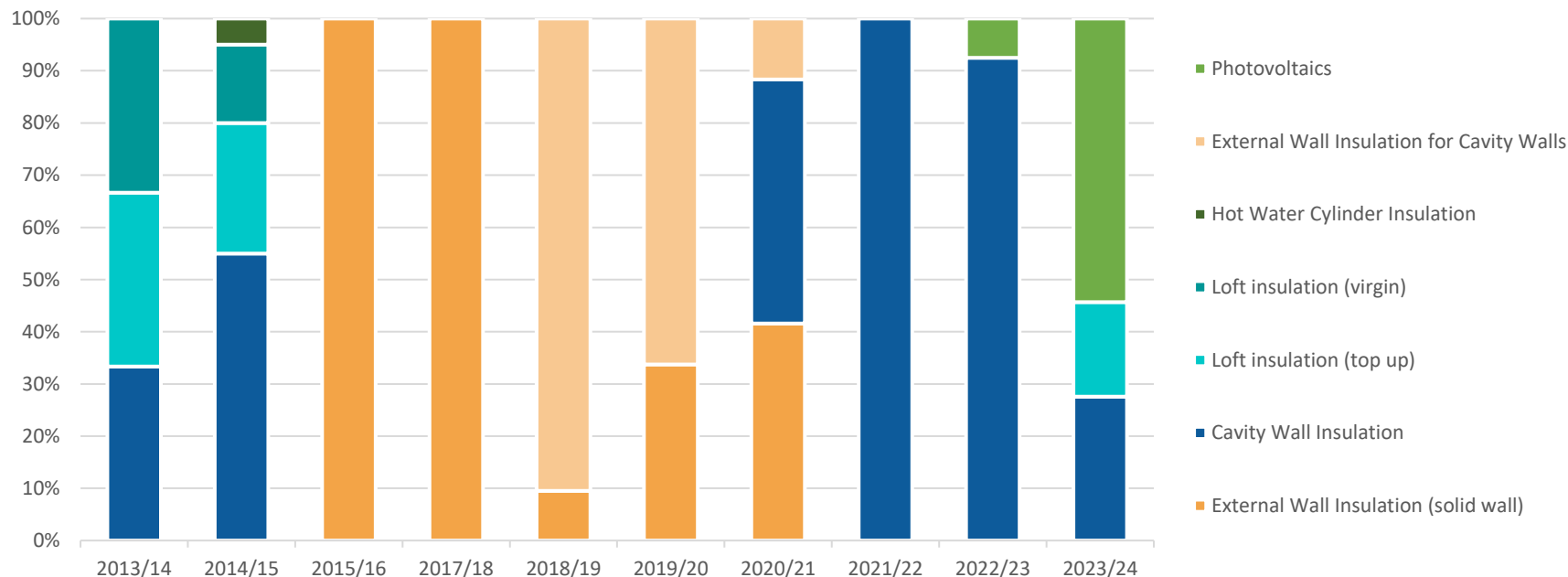
East Lothian Council has offered a variety of measures as part of their EES: ABS programme. Over 84% of all measures have been for wall insulation including external wall insulation for solid wall, standard cavity wall and external wall insulation for cavity wall. There was only one Non-ECO funded measure installation, and this was for hot water cylinder insulation.

# Installed Measures II

Measure Name	Number of records*	% of records
Cavity Wall Insulation	230	32.53
External Wall Insulation (solid wall)	218	30.83
External Wall Insulation for Cavity Walls	147	20.79
Photovoltaics	78	11.03
Loft insulation (top up)	29	4.10
Loft insulation (virgin)	4	0.57
Non-ECO funded measure (Hot Water Cylinder Insulation)	1	0.14
<b>Total Installs</b>	<b>707</b>	<b>100.00</b>

# Installed Measures by Financial year

Installed EES: ABS measures by financial year

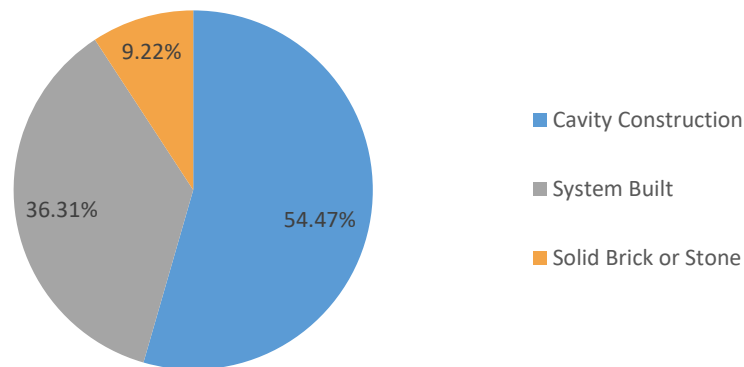


In the first two years of the programme, East Lothian Council offered three measures (cavity wall insulation, loft insulation and hot water cylinder insulation). While the next four years focused solely on installation of external wall insulation for both solid and cavity walls. In 2022/23, renewable energy source was introduced, as nine properties had Photovoltaics installed. This also formed 54% of all the installations carried out under the council's EES:ABS programme in 2023/24.

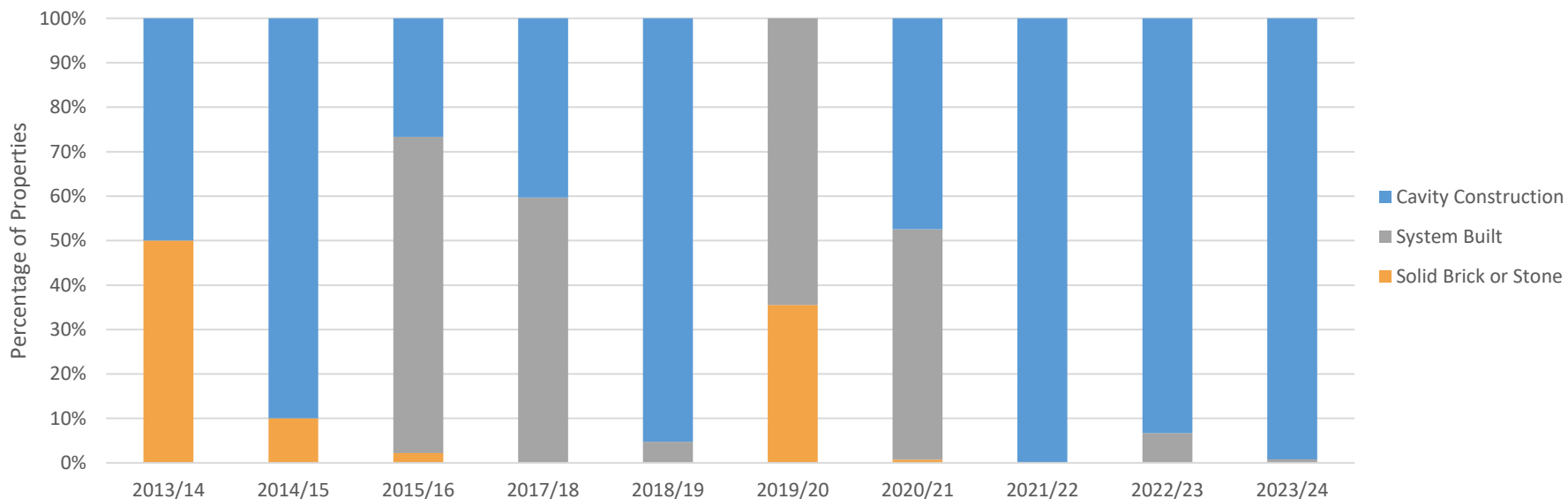
# Wall Type

The chart on the right shows the distribution of different wall types within the programme. Below you can see the division of these wall types throughout the years.

EES: ABS Properties by wall type

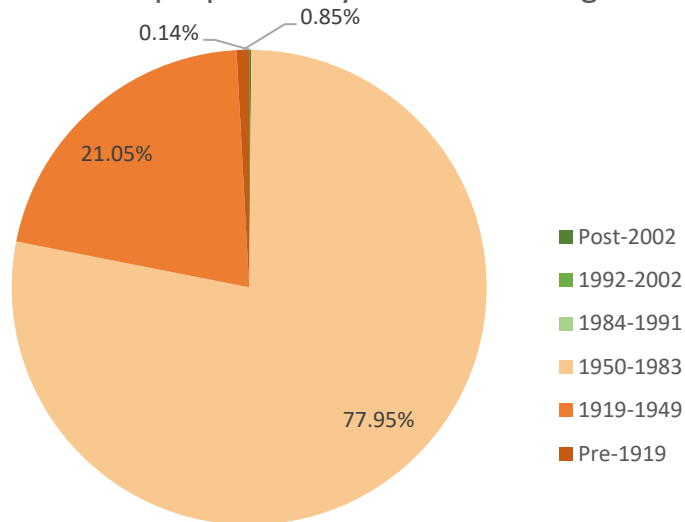


EES: ABS properties and construction type by financial year

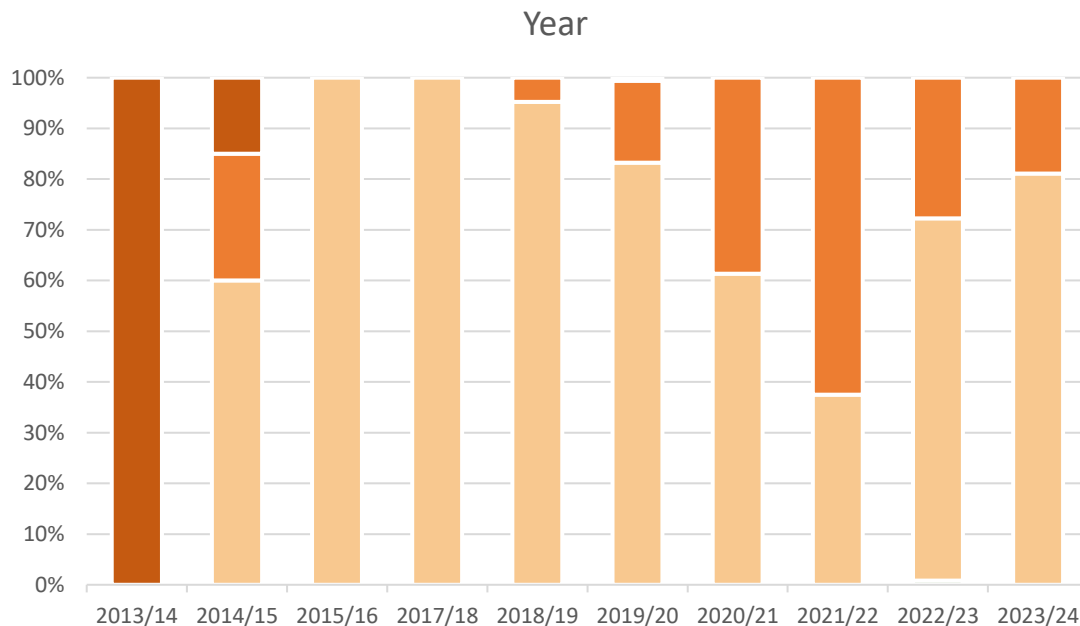


# Construction Age

EES: ABS properties by construction age



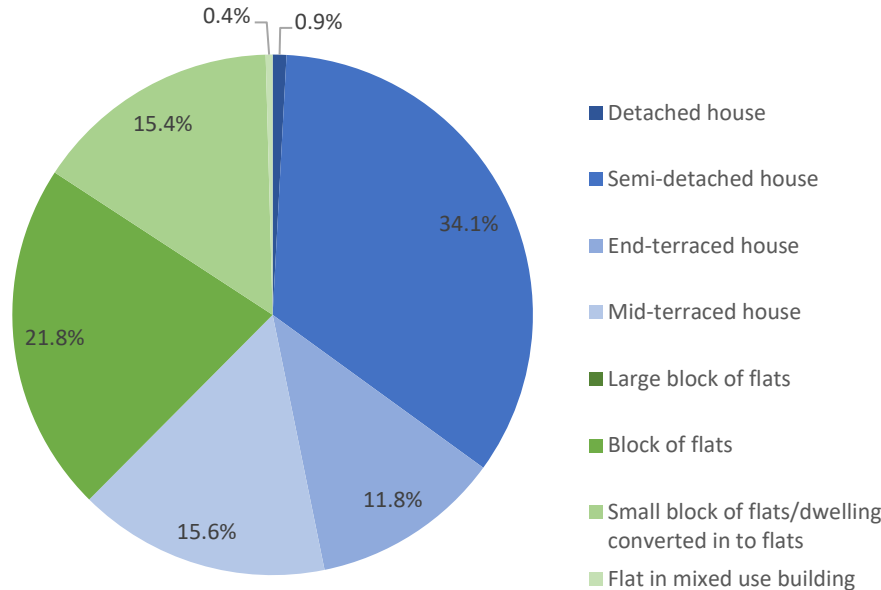
EES: ABS Properties and Construction Age by Financial



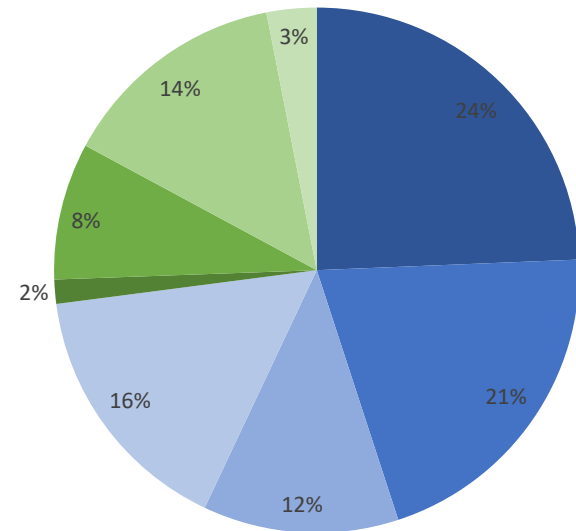
The majority of all participating properties were constructed between 1950 and 1983 (78%) and this has been East Lothian Council’s approach for most of the programme. 21.90% of all properties were constructed between 1919 and 1949 or pre-1919. The older properties are mostly system-built properties or cavity constructions (90.75%) including some solid brick or stone built properties (9.25%).

# Dwelling Type

EES: ABS properties by dwelling type



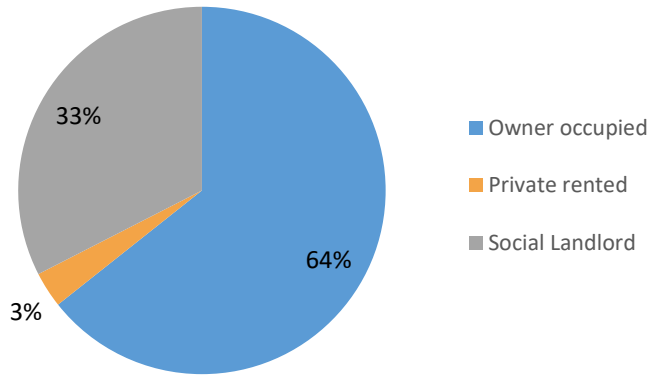
East Lothian properties by dwelling type



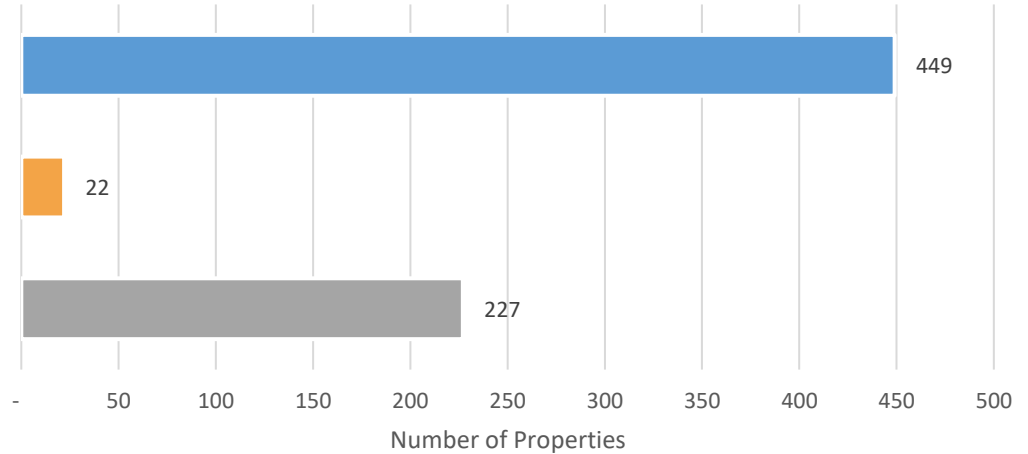
62.5% of the programme focused on treating houses while the remaining 37.5% targeted flats. As a whole, 73% of the dwelling types within East Lothian Council consists of houses and 27% of flats.

# Property Tenure

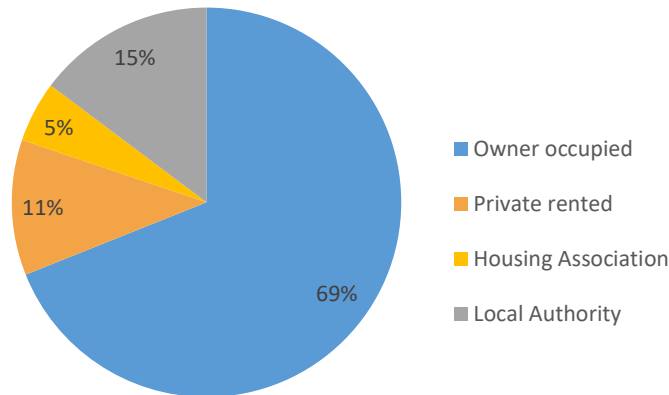
EES: ABS properties by tenure



EES: ABS properties by tenure



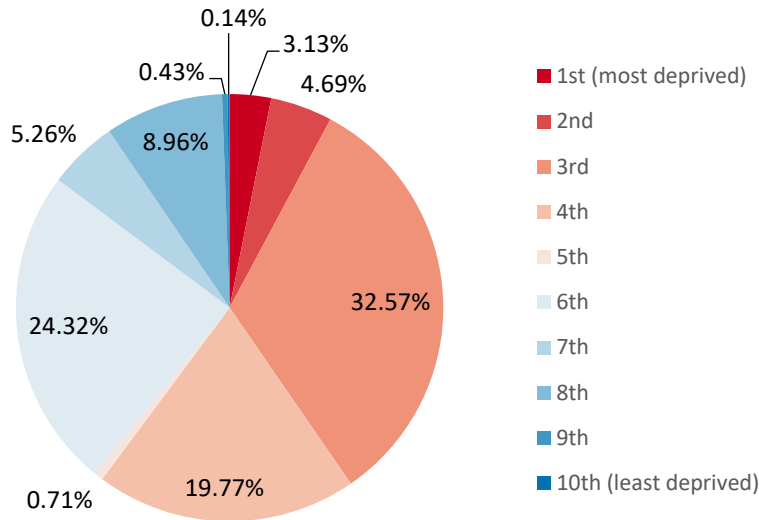
East Lothian properties by tenure



East Lothian council targets mixed tenure property types to include all tenure types in the programme within the allocated area. The council has also been able to engage registered social landlords to include these properties on a number of projects. The high presence of owner-occupied housing (64%) includes right-to-buy properties.

# Scottish Index of Multiple Deprivation (SIMD) I

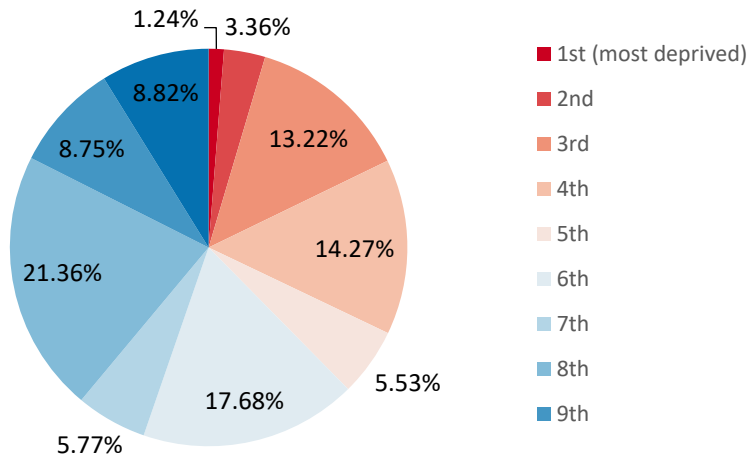
EES: ABS properties by overall SIMD decile ranking



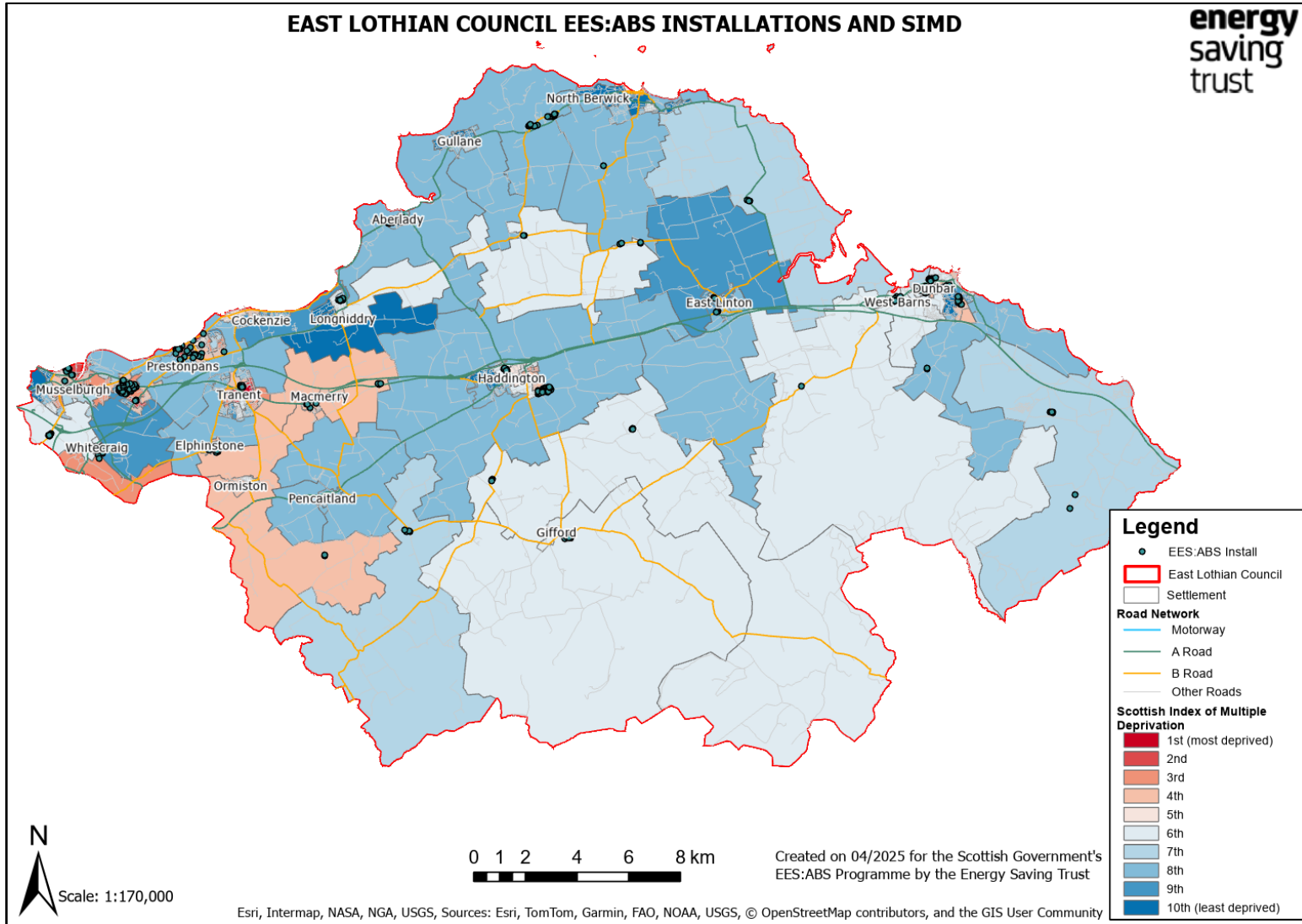
Comparison of these two illustrations shows the correlation between the overall SIMD ranking of East Lothian Council properties and of those targeted in the EES: ABS programme. A total of 85.21% of all participating properties are in the most deprived areas of the council and can be found within the six lowest SIMD ranks as seen in the top chart.

It is good to note that the SIMD can be a slightly problematic indicator for rural settings as each data zone contains between 500 and 1000 properties. Rural populations are very dispersed, so this means that very large catchments are created in order to reach the required range. Larger areas are more likely to group deprived and non-deprived households together and this results in rural SIMD rankings shifting towards the median. Whilst the programme is most likely helping deprived areas, the SIMD ranking can be a slightly inaccurate method to fully test this hypothesis.

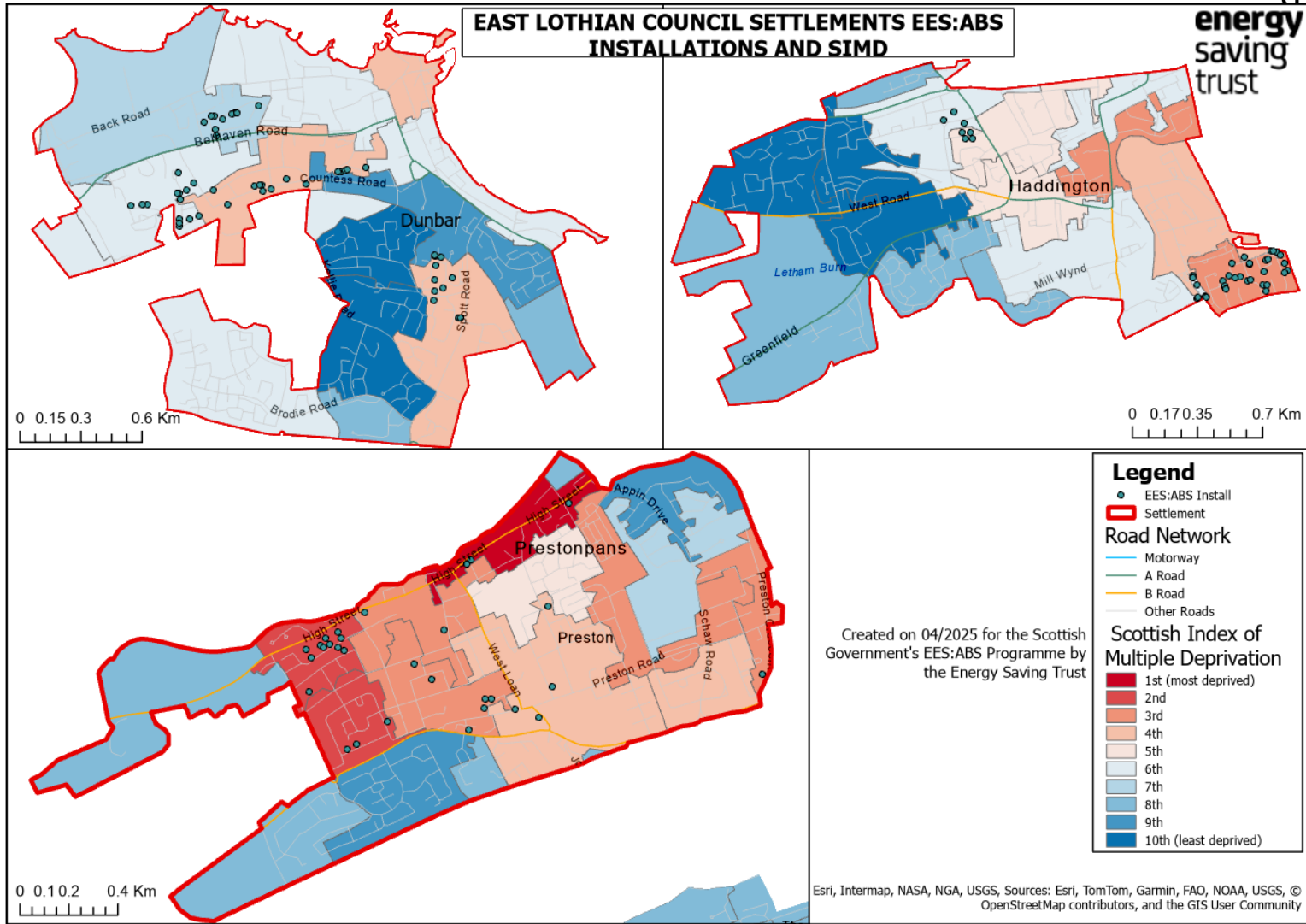
East Lothian properties by overall SIMD decile ranking



# Scottish Index of Multiple Deprivation (SIMD) II

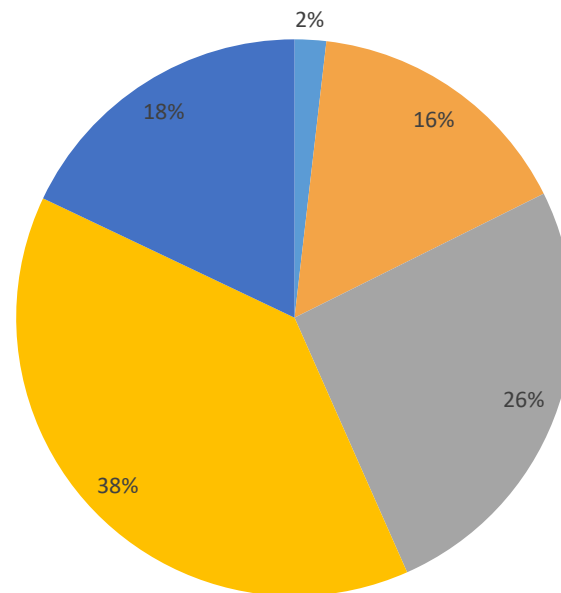
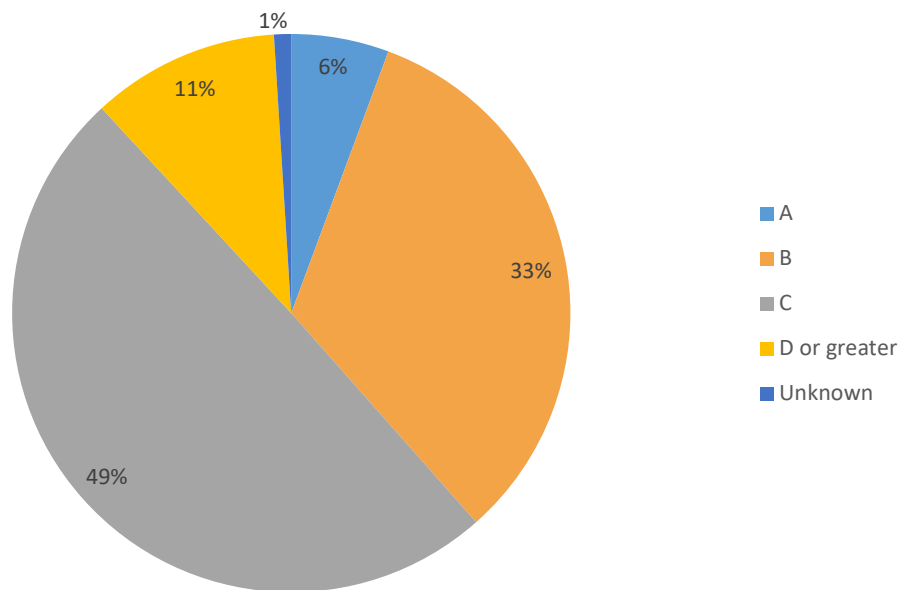


# Scottish Index of Multiple Deprivation (SIMD) III



# EES: ABS Installs by Council Tax Band

EES: ABS properties by council tax band



- A
- B
- C
- D or greater
- Unknown

EES: ABS properties by council tax band

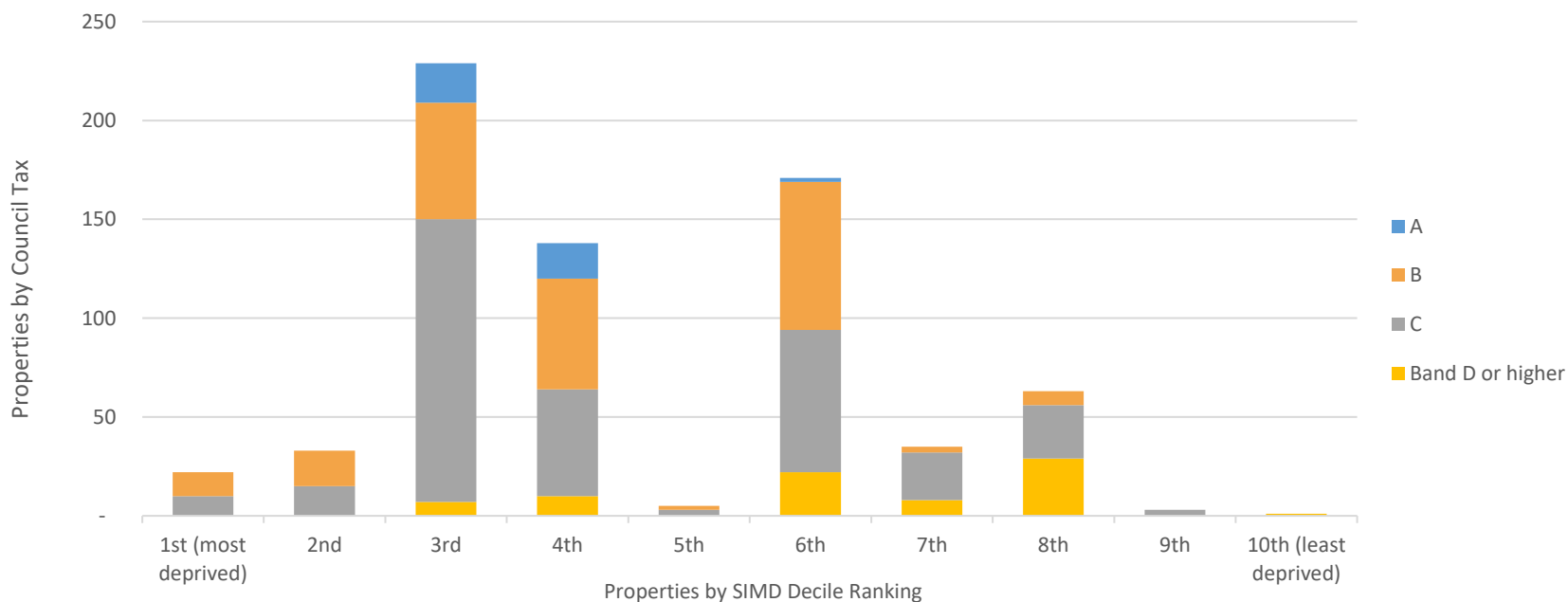


The East Lothian EES: ABS programme specifically targets A, B and C council tax banded properties and 88.1% of the properties in the programme fall into this category as shown in the charts. While 10.9% of the treated properties are band D or greater. The remaining 1% is unknown

# EES: ABS Installs by Council Tax Band and SIMD

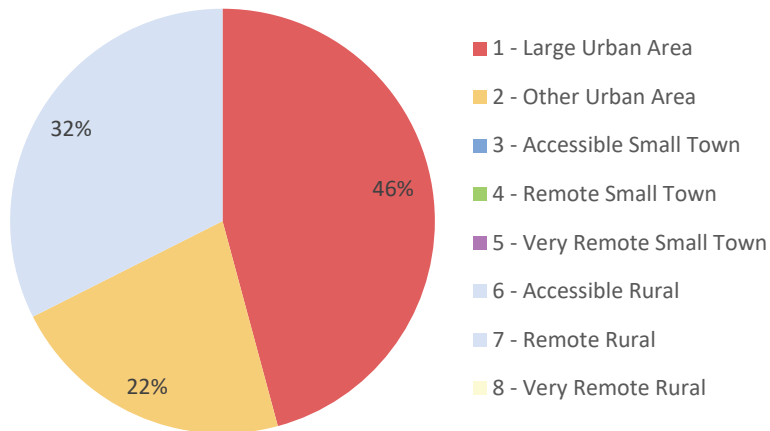
Council tax banding can often be seen as an indicator for income and this illustration examines the property council tax bands against the income SIMD ranking of the areas involved. 65.81% of the installations treating A, B and C council tax banded properties are located within the five most SIMD deprived areas when ranked by income as seen below.

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



# Urban Rural Classification I

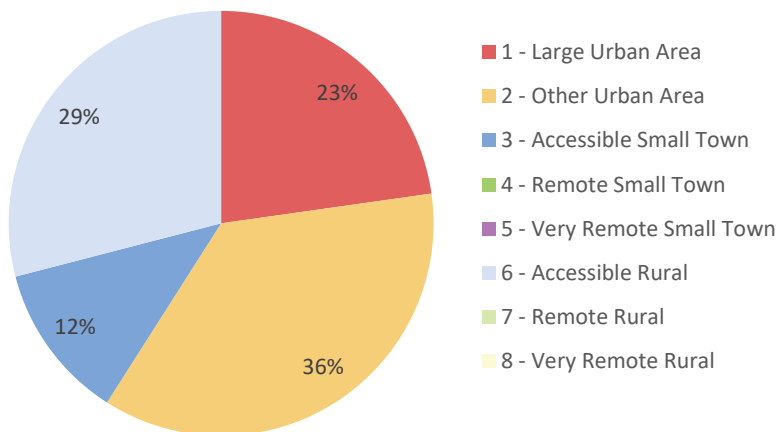
EES: ABS properties by urban rural classification



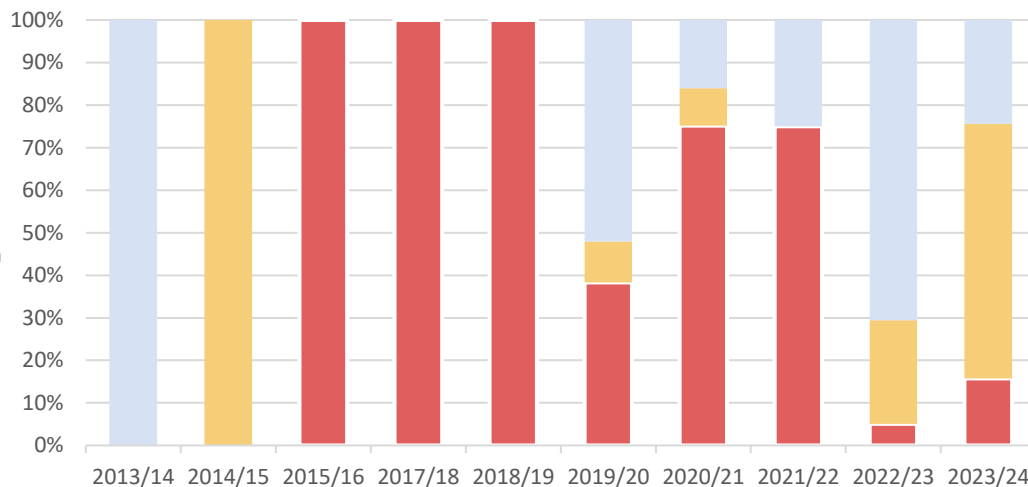
The East Lothian area consists of four different urban rural classifications. Large urban area, Other urban area, accessible small town and accessible rural.

Three of these areas have been represented in the programme with major focus (78%) in the Large urban and accessible rural areas. While the remaining 22% of the programme was in the other urban areas. The bottom chart demonstrates the year-on-year distribution of work across the three urban rural classifications.

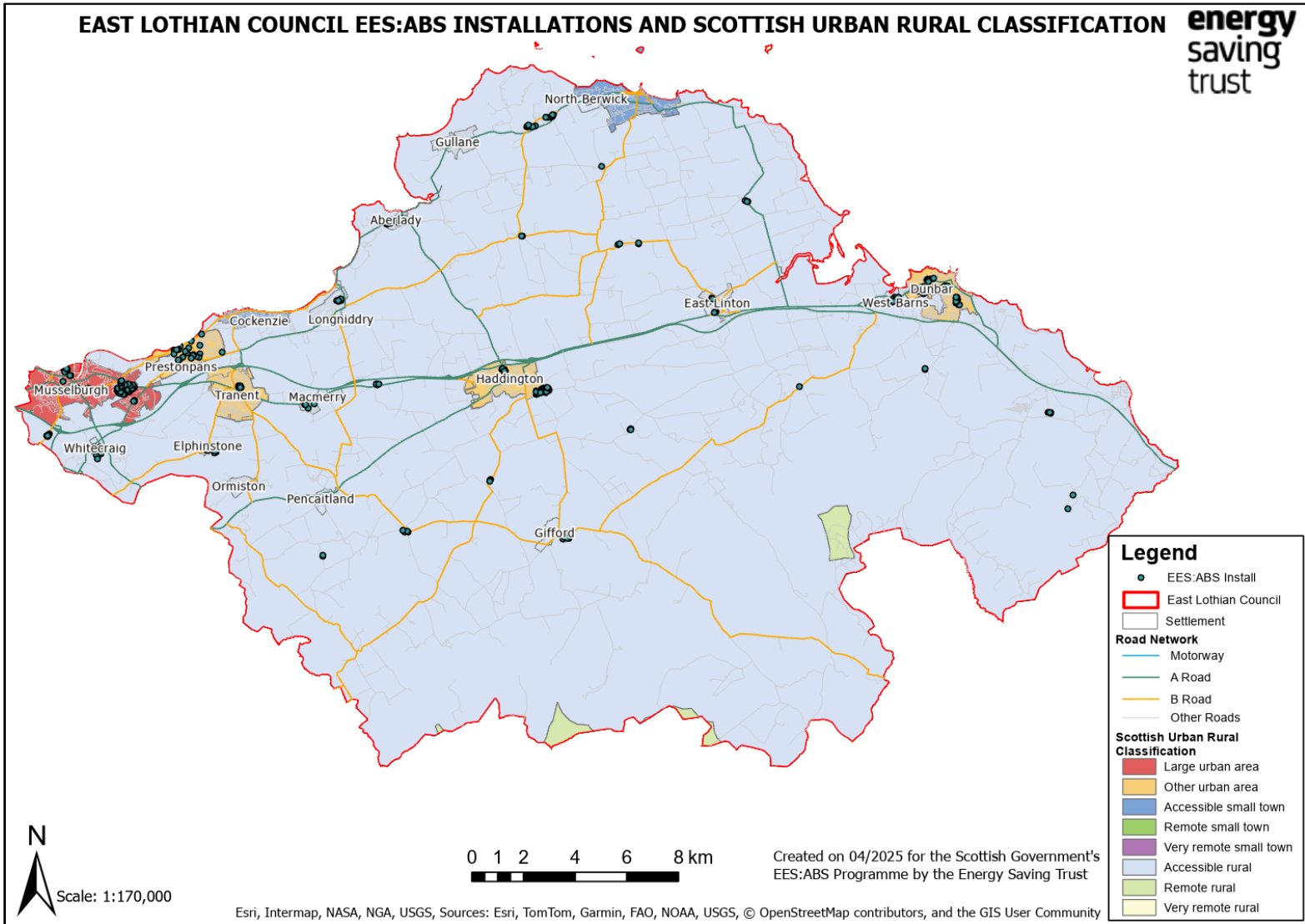
East Lothian properties by urban rural classification



EES: ABS properties by urban rural classification



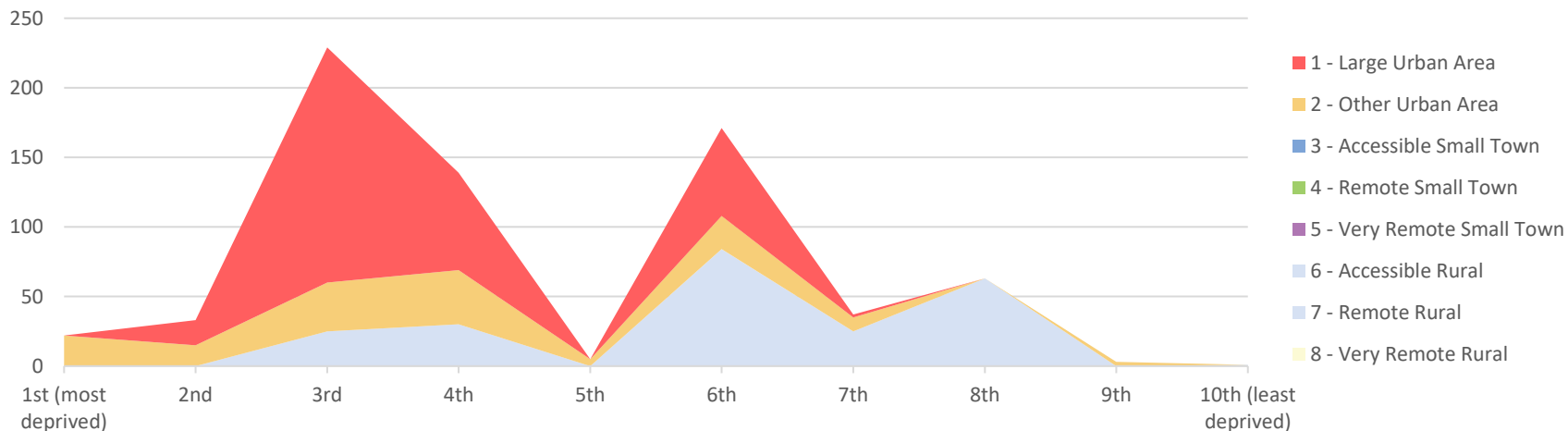
# Urban Rural Classification



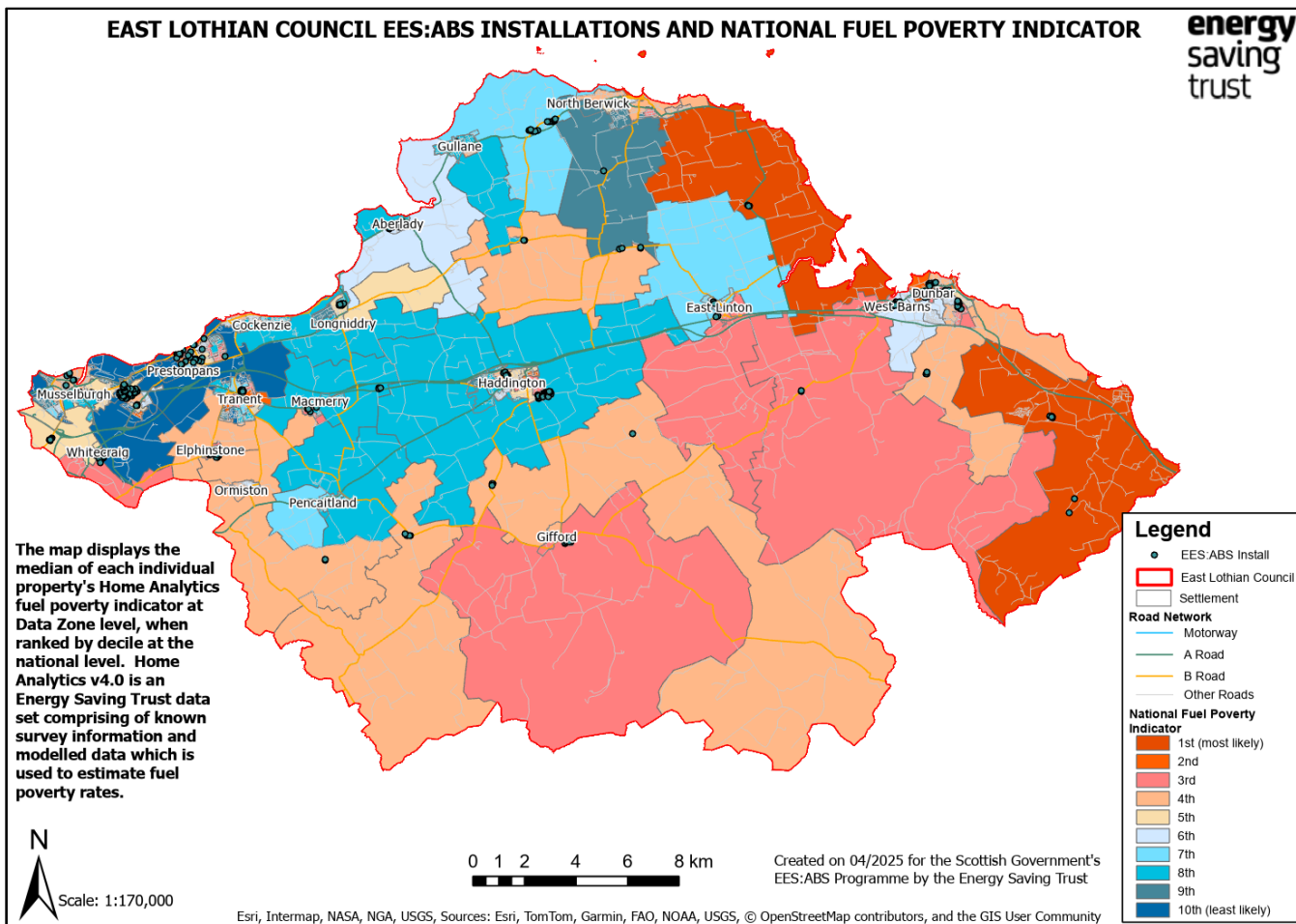
# Urban Rural Classification and SIMD

This illustration demonstrates how 87% of the work that was completed within the five most deprived SIMD ranks fall within Large urban and other urban areas. According to East Lothian Council, urban rural classification alone is not one of the key features for participating properties, as factors such as SIMD ranking, council tax, income and the condition of the property are considered. Furthermore, it is worth noting that in addition to rural data zones tending to lean towards the average SIMD ranks, not all deprived households can be found within highly deprived areas.

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



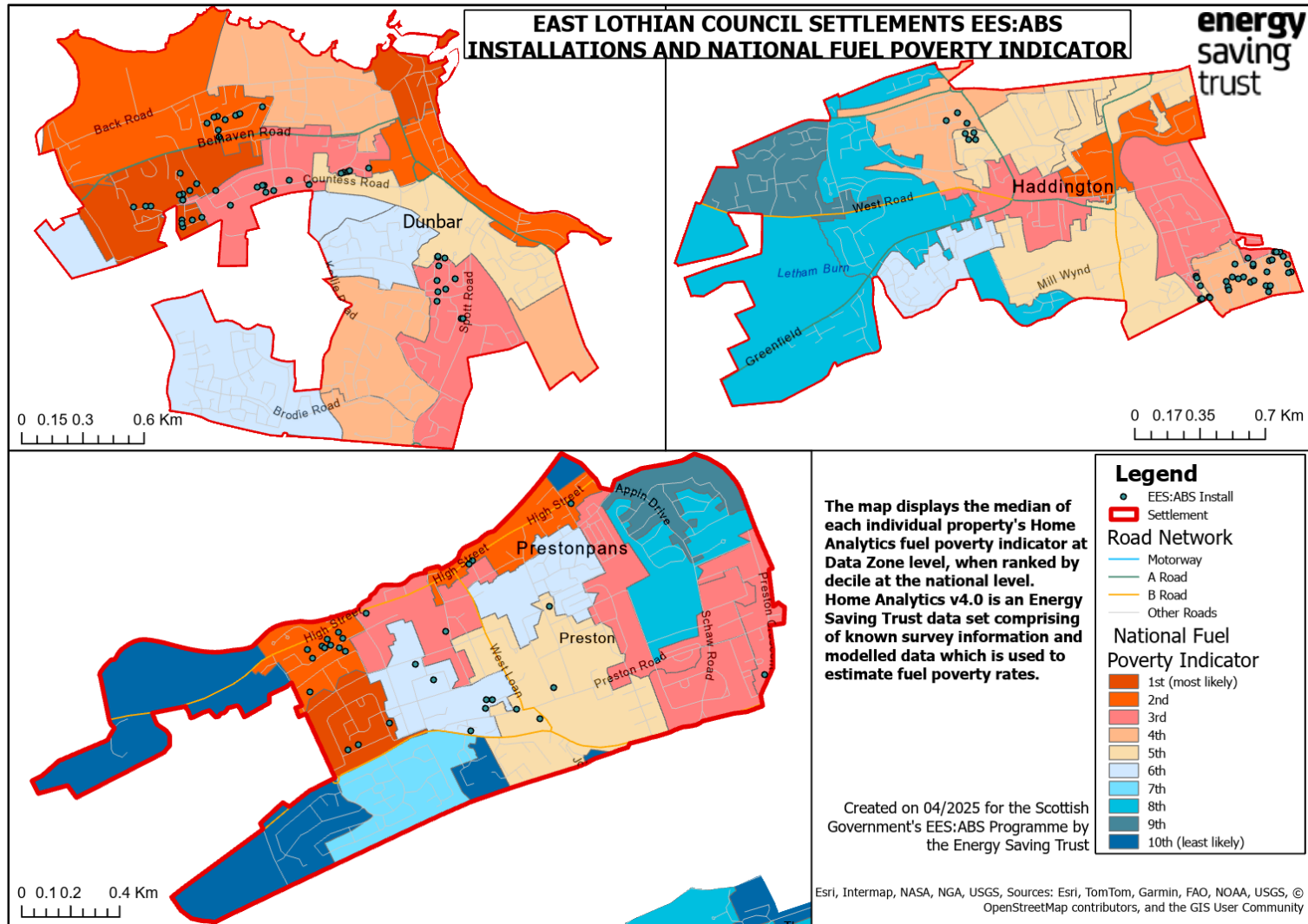
# National Scottish Fuel Poverty Indicator I



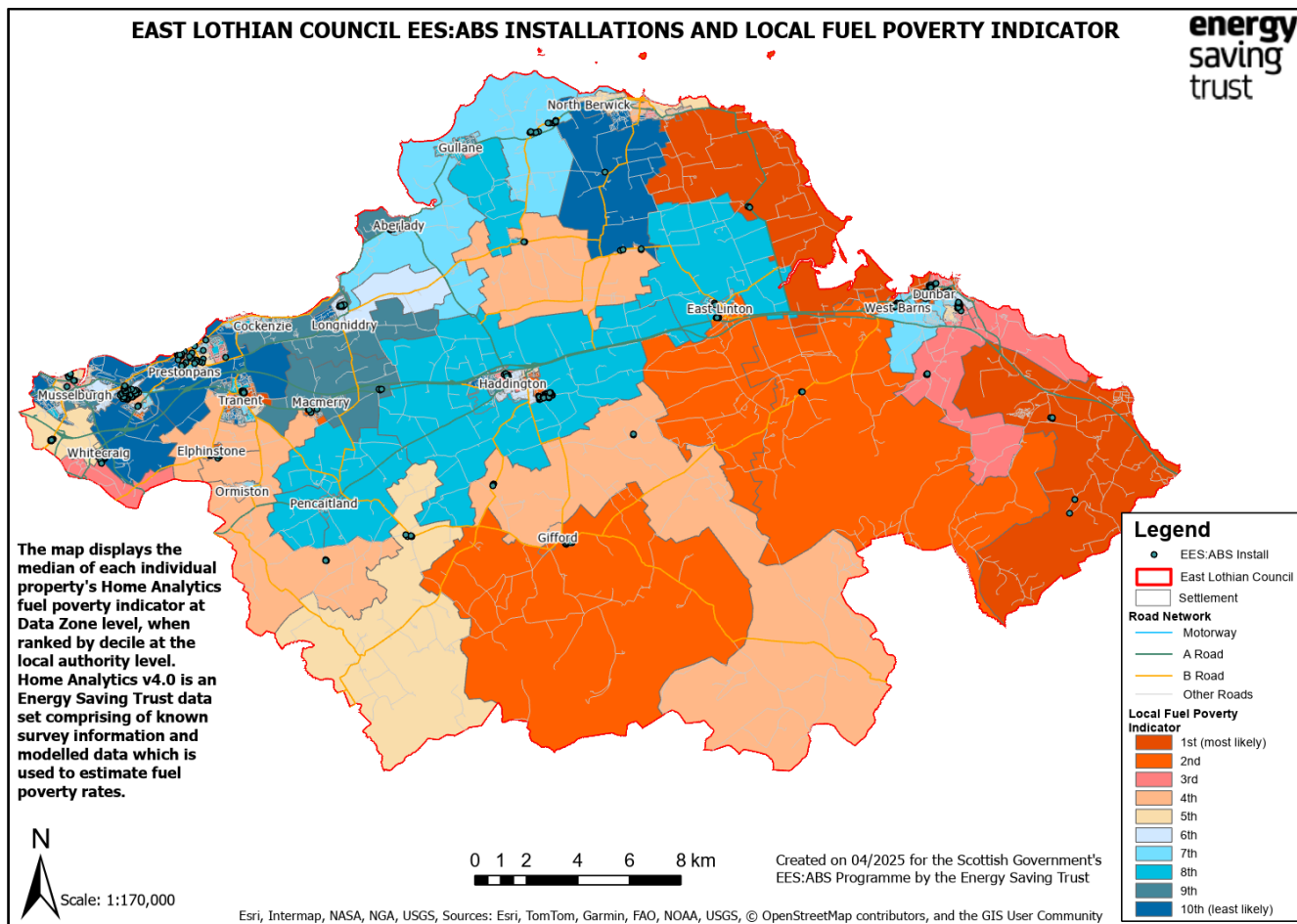
Here we can see the state of fuel poverty in East Lothian Council compared to the rest of Scotland. The blue areas have the lowest fuel poverty rates on a national scale when fuel poverty by Data Zone is ranked for all local authorities in the country. According to the Scottish Housing Condition Survey (SHCS), the average fuel poverty rate in East Lothian Council area is around 24% of all homes.

This equals the Scottish national average (24%) and places East Lothian Council as 13<sup>th</sup> of all 32 local authorities in the country.

# National Scottish Fuel Poverty Indicator II



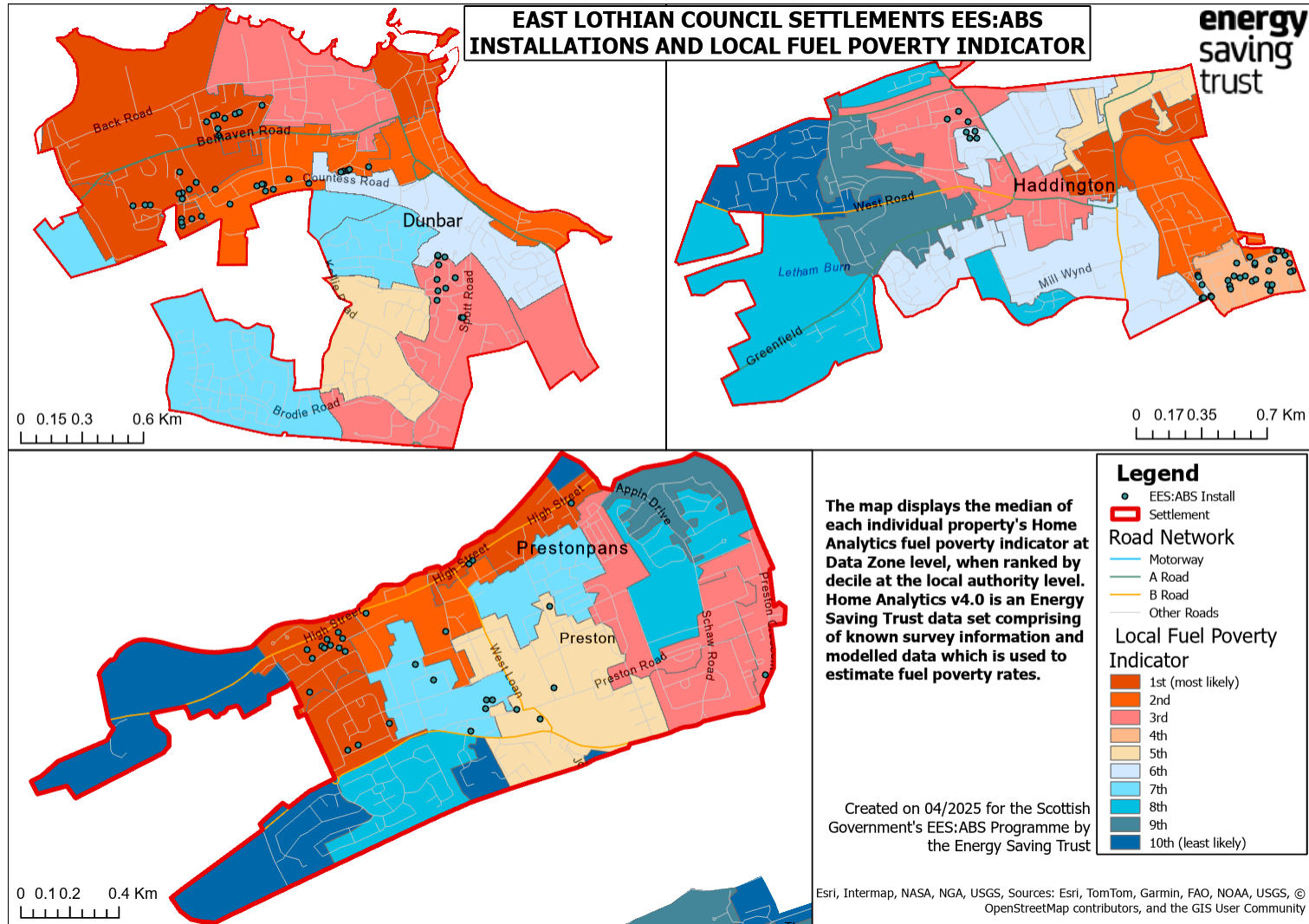
# East Lothian Fuel Poverty Indicator I



This map demonstrates the probability of fuel poverty by data zone ranked on a local authority level for East Lothian Council only. The highest fuel poverty areas within the council are shown here in red. It is worth noting that the fuel poverty indicator used here is a snapshot of the situation. Thereby, in some cases, the past work completed

by energy efficiency programmes, such as EES: ABS, will be contributing to the lower fuel poverty rates at present.

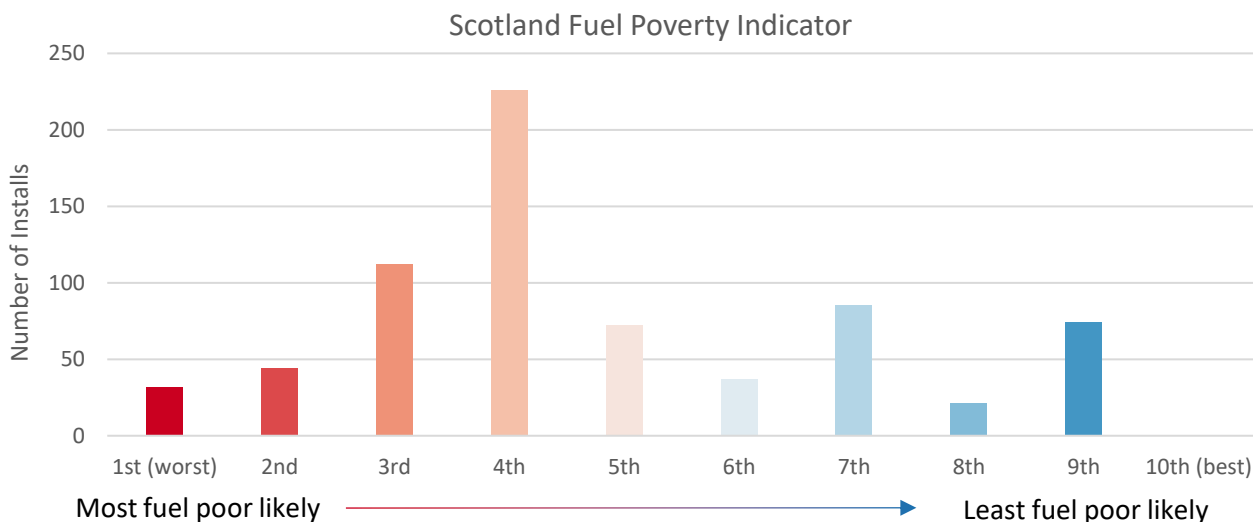
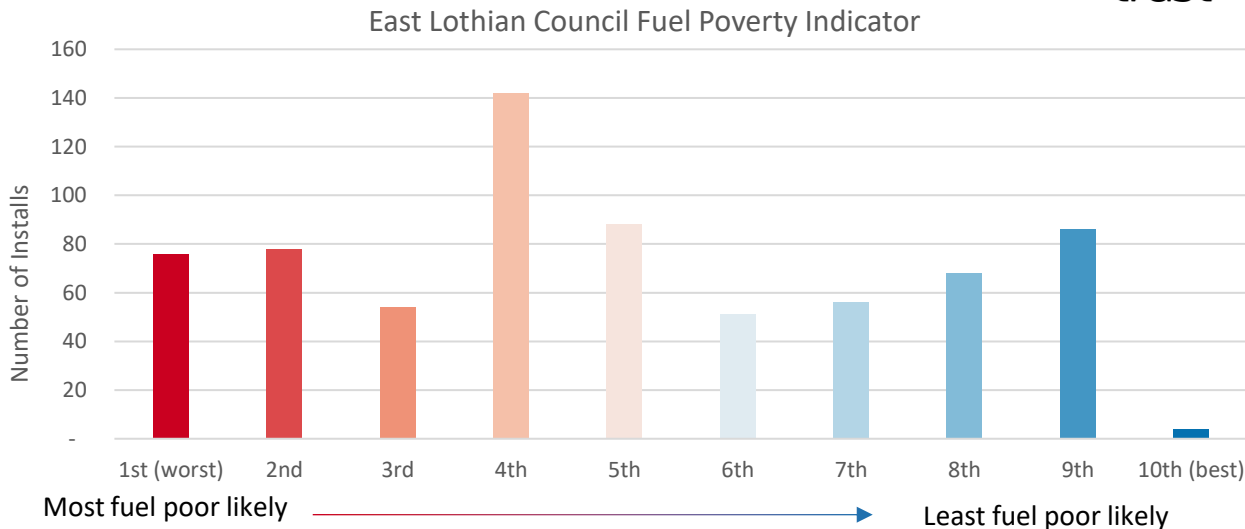
# East Lothian Fuel Poverty Indicator II



# East Lothian Fuel Poverty Indicator III

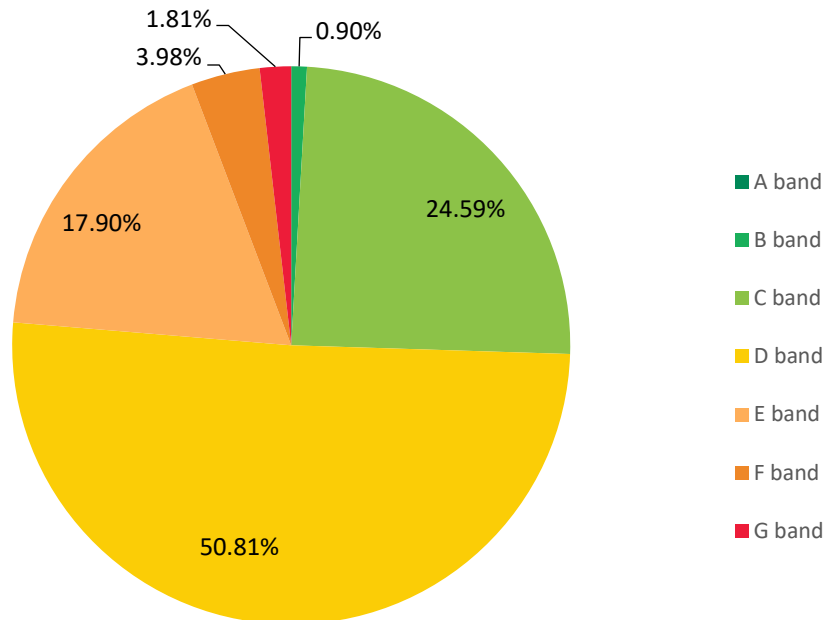
69.56% of all EES: ABS installs took place within the six most fuel poor ranked data zones as seen in the top illustration. This is looking at the local authority specific fuel poverty indicator for East Lothian Council.

The bottom chart shows the difference when the installs are looked at on a national scale for Scotland. 74.40% of the installs are within the six most fuel poor ranks when compared to the national figures.

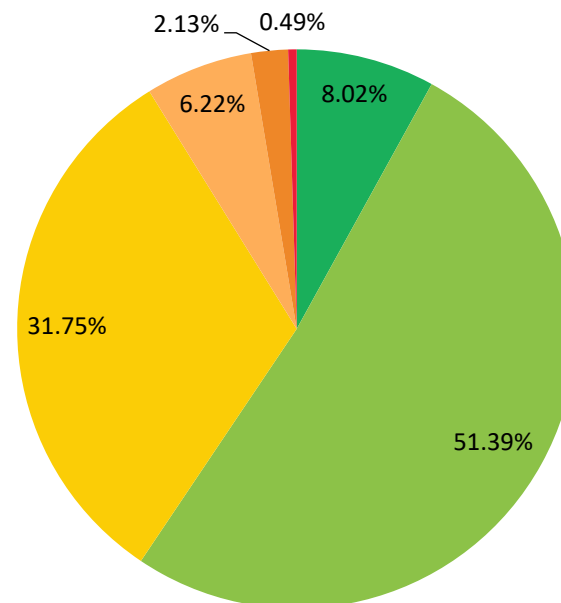


# EES: ABS SAP Band Analysis I

EES: ABS properties by pre-installation EPC banding



EES: ABS properties by post-installation EPC banding



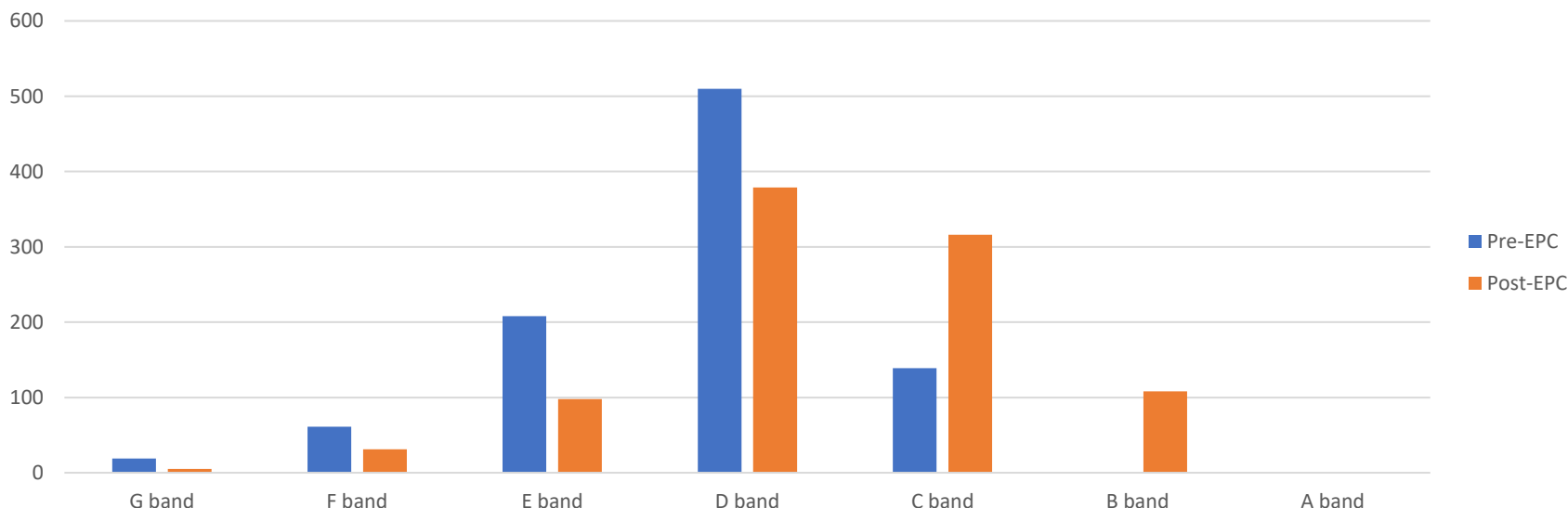
A valid pre-installation EPC was provided for 553 properties participating in the programme. 74.50% of these were within the national band D average or lower.

A total of 611 participants had a valid post-installation EPC regardless of the validity of the pre-EPC. After the completion of the installs, 59.41% of these properties made it to band C or higher.

# EES: ABS SAP Band Analysis II

Out of the 553 properties with valid pre-EPCs, a total of 507 had a valid pre- and post-installation EPC and can be used for further analysis. 72.98% of these 937 properties had a starting SAP band of D or lower. The Post-EPC's show that after the completion of installs, 48.13% of the properties have reached band C and 34.32% reached band D. 39 properties also moved up to band B. 8.88% of the properties have 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

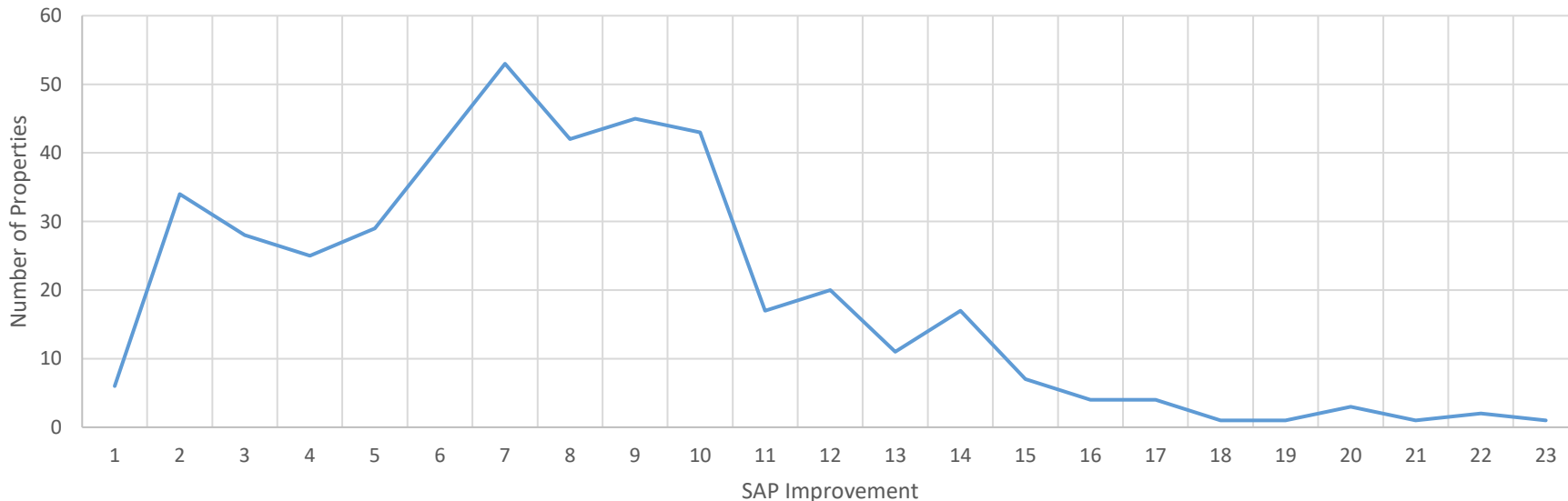


# EES: ABS SAP Band Analysis III

The most common outcome of the EES: ABS programme within East Lothian Council was for a property to increase in SAP score for around 6 to 10 points (28.1% of properties where the EPC's were valid to use for further analysis).

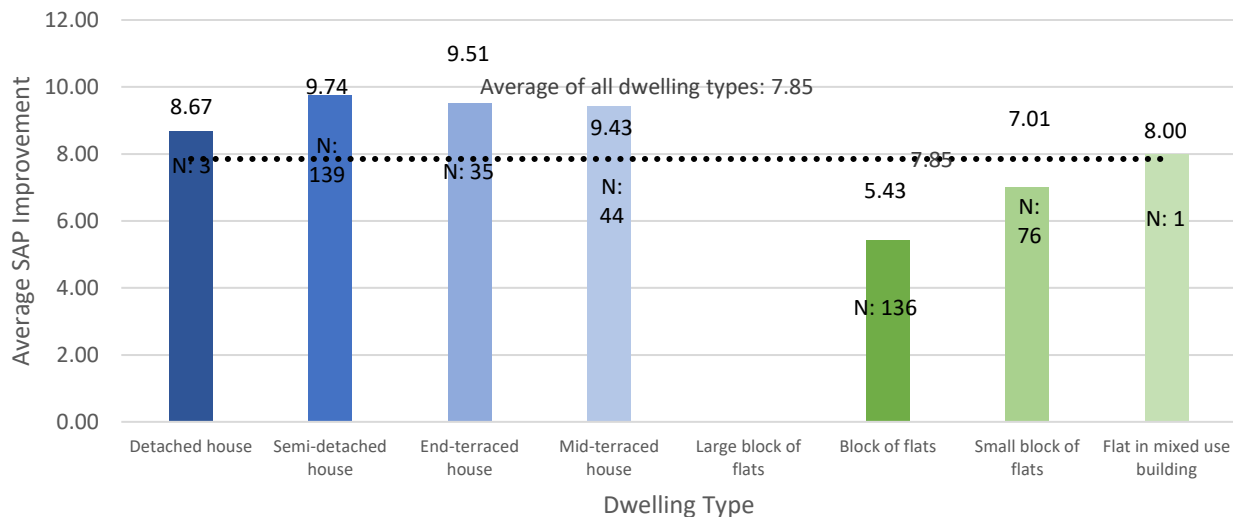
The larger SAP increases (15 to 23 points) included in this case study were due to installation of external wall insulation for solid walls, Photovoltaics and external wall insulation for cavity walls across all dwelling types in the council area.

EES: ABS Property Count by SAP Improvement



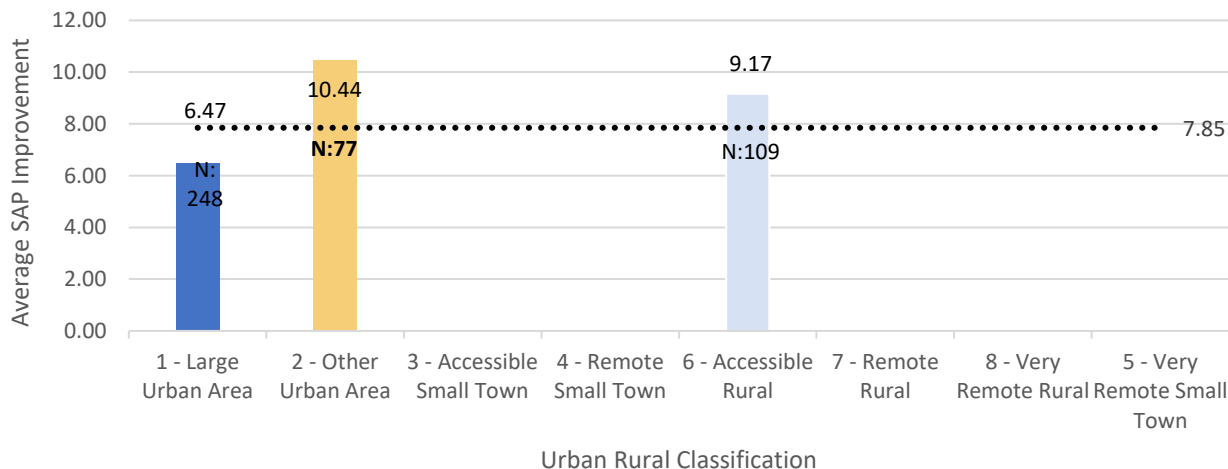
# EES: ABS SAP Band Analysis IV

Average SAP improvement by dwelling type



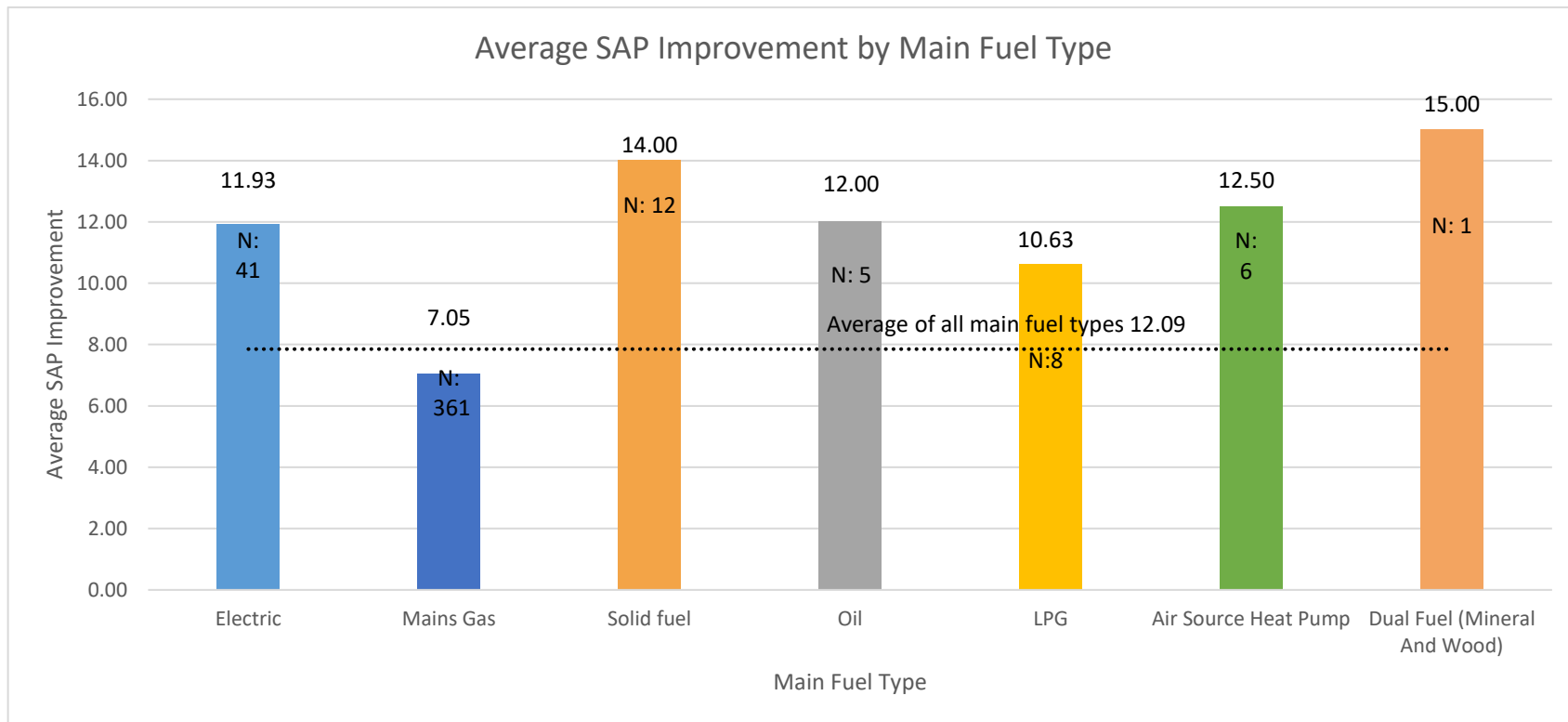
The average SAP improvement for all dwelling types is 7.85. The biggest sample size is for semi-detached houses (N:139) and the average increase for this dwelling type has been 9.74.

Average SAP improvement by urban rural classification



The average SAP improvement for all urban classifications where data was available for further analysis, has been 7.85. The biggest sample size is for large urban area (N:248) where the average improvement was 6.47.

# EES: ABS SAP Band and Main Fuel Type



The average SAP improvement for all main fuel types was 12.09. The biggest sample size available was for mains gas properties where the average improvement was 7.05. Properties with electric heating improved by their SAP rating by 11.93 on average, and dual fuel properties by 15.0. However, the sample size for the dual fuel was very low ( 1 record).

# Conclusions and notes

- A variety of measures have been included in the programme since outset and in 2023/24, 54.3% of all measures have focused on creating renewable energy sources (Photovoltaics).
- The typical participating property is a blend of houses (62.5%) and flats (37.5%).
- The majority of the properties included in the programme were constructed between 1950 and 1983 (78% of all properties).
- 85.2% of the properties included can be found within the six most deprived SIMD areas.
- Most properties had a starting EPC of band D or lower (74.5%) and 59.4% 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 6 to 10 points.

# Sources

Variable	Source	Notes
EES: ABS Measure, Address and Tenure	Local Authority	Held on 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 SAP 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.

Special thanks to John Durkin, Senior Energy Officer, and William Edmond, Energy Officer (Strategy & Development) at East Lothian Council, for their valuable insight and assistance in the completion of this case study.

# Contacts

**Energy Saving Trust EES: ABS Contact:**

Christiana Osuolale  
Data Management Officer  
est\_eesabs.reporting@est.org.uk

**Scottish Government EES: ABS Contact:**

SGareabasedschemes@gov.scot

Jonathan Cairney  
Delivery Manager | Area Based Schemes  
jonathan.cairney@gov.scot

Josh Kumar  
Delivery Manager | Area Based Schemes  
Josh.Kumar@gov.scot

**East Lothian Council EES: ABS Contact:**

John Durkin  
Senior Energy Officer-Strategy & Development  
jdurkin1@eastlothian.gov.uk