

Energy Efficient Scotland: Area Based Schemes (EES:ABS)

Scottish Borders Council Overview Report

February 2021

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BACKGROUND AND CONTEXT

Everyone should have access to a warm home that they can afford to heat, unfortunately for many households living in the Scottish Borders this is difficult to achieve. Some of the reasons for this include poor insulation, inefficient heating, low incomes, the cost of fuel and a lack of understanding and awareness of inefficient behaviours in the home. Homes that are cold and energy inefficient are detrimental to health and result in many households living in fuel poverty.

The 2016-2018 based Scottish House Condition Survey data shows that in the Scottish Borders 29% of households were living in fuel poverty¹, with 15% living in extreme fuel poverty. This is in comparison with 25% of people in Scotland living in fuel poverty and 11% living in extreme fuel poverty. Fuel poverty is exacerbated by a number of specific factors affecting properties and households in the Scottish Borders, including: a larger proportion of dwellings built before 1945, the rurality of the Scottish Borders meaning more dwellings are off gas, a larger percentage of older households and a low wage local economy. Table 1 shows the percentage of people living in fuel poverty.

Table 1: Percentage of people living in Fuel Poverty

	2010-12	2011-13	2012-14	2013-15	2014-16	2015-17	2016-18
Scottish Borders	34%	43%	39%	38%	34%	31%	29%
Scotland	27%	36%	35%	34%	31%	27%	25%

The links between fuel poverty and wellbeing are well known, fuel poverty can have a severe impact on cold related ill-health and personal wellbeing, particularly amongst vulnerable households, and people on low incomes. We also know that a large number of households in the Scottish Borders fall into these categories and that many of them live in older, hard to treat properties, which are difficult to insulate.

The Housing (Scotland) Act 2001 places a statutory duty on Local Authorities to develop Local Housing Strategies that aim to ensure that, “so far as reasonably practicable, persons do not live in fuel poverty.” This obligation relates to housing in all tenures. The Local Housing Strategy (LHS) 2017-2022 is the Council’s key strategic document for planning and delivering initiatives to reduce fuel poverty and improve home energy efficiency. Priority 2 of the LHS is that “More people live in good quality, energy efficient homes”.

The current LHS 2017-22 identified a need to develop a new Fuel Poverty and Home Energy Efficiency strategy to support the delivery of actions under LHS priority 2, in particular those which address the following policy issues:

¹ Please see Appendix A for a full definition of fuel poverty

- National fuel poverty target (2016) and links to energy efficiency
- Housing's contribution to climate change; and
- Meeting the Energy Efficiency Standards for Social Housing (EESH).

The local strategy developed for delivering improvements is the Affordable Warmth Home and Energy Efficiency Strategy (AWHEES). This document was developed with partners in the Borders Home Energy Forum (BHEF) and approved by council members in August 2019 as SBC's strategy to increase affordable warmth and improve energy efficiency in housing.

The strategy supports delivery of the Scottish Government's "Energy Efficient Scotland" (EES) route map and new Local Heat and Energy Efficiency Strategy (LHEES) which are scheduled to be in place by the end of 2023. LHEES aims to establish local authority plans for systematically improving the energy efficiency of buildings alongside the decarbonisation of heat as well as guiding building owner decision making about replacement heating systems.

The key delivery channel for delivering the AWHEES and addressing fuel poverty is the Home Energy Efficient Programme for Scotland: Area Based Scheme (HEEPS:ABS). This has been the core delivery of both the Scottish Government and Local Authority energy efficiency improvements for private domestic properties since 2013. This has recently been rebranded as Energy Efficiency Scotland: Area Based Scheme (EES:ABS) and for the purposes of this report is referred to by the new moniker.

Support given to Fuel Poor households through EES:ABS Schemes from April 2013 – December 2020:

- **Measures installed to date: 4,353**
- **Households supported: over 3,500**
- **Annual Financial Savings (£): £521,540**
- **Lifetime Financial Savings (£): £20,811,240**
- **Annual CO2 Savings (Tonnes): 2,060**
- **Lifetime CO2 Savings (Tonnes): 16,585**

Climate Emergency, Scottish Government Carbon Targets & Decarbonisation

At a meeting of Scottish Borders Council on September 25th 2020, councillors approved a motion declaring a **climate emergency** in the Scottish Borders. A series of recommendations were put forward including the reduction of greenhouse gases and in a report responding to the climate emergency by the Chief Executive of SBC² it was noted that

² [Climate Emergency Report](#)

“Decarbonising Scottish heating will be particularly challenging and will need transformation of our current housing stock, attitudes towards renewable technology and current heating supply. Specific challenges for Scottish Borders relate to off-gas grid. In addition, fuel poverty is very significant consideration”.

The **Energy Efficient Scotland routemap** was published in 2018 with the ambition that by 2040 “Our Homes And Buildings Are Warmer, Greener And More Efficient”.

Energy Efficient Scotland delivers across two key policy areas of Government: fuel poverty and climate change. As a result of this there are two primary objectives:

- Removing poor energy efficiency as a driver for fuel poverty; and
- Reducing greenhouse gas emissions through more energy efficient buildings and decarbonising our heat supply.

The current target in the Energy Efficient Scotland Route Map is that by 2040 all Scottish homes achieve an EPC Band C where technically and financially feasible. All homes with households in fuel poverty to reach EPC Band C by 2030 and EPC Band B by 2040. Social rented homes to achieve EPC Band B by 2032.

Table 2: Current compliance with Energy Efficient Scotland EPC band ratings, by locality and tenure type, presented as % of stock

Locality	Compliant with EPC C or higher (by 2040)			Compliant with EPC B (by 2032)
	Owner Occupied	Social Housing	Privately Rented	Social Housing
Berwickshire	21%	45%	12%	7%
Cheviot	29%	45%	21%	2%
Eildon	25%	36%	21%	2%
Teviot and Liddesdale	18%	36%	17%	3%
Tweeddale	27%	46%	22%	6%

The Council’s [Affordable Warmth and Home Energy Efficiency Strategy](#) (AWHEES) and the EES:ABS scheme support these national and local ambitions. In particular the introduction of renewables such as Air Source Heat Pumps to the EES:ABS programme will be vital in tackling climate change and fuel poverty, particularly in more rural areas.

Within the AWHEES there is a commitment to support renewable technology and to develop the local supply chain so that there are companies and the skill base to do this type of work within the Scottish Borders. Work to improve the supply chain has been undertaken and discussions in regard to this have been held at the Scottish Borders Home Energy Forum meetings.

Further fact finding work into the supply chain challenges and deliverables was continued across 2020 by the Southern Upland Partnership (SUP), with their project due to run up to March 2021. The SUP are now delegates of the Home Energy Forum.

INTRODUCTION TO ENERGY EFFICIENT SCOTLAND: AREA BASED SCHEMES

In 2013 the Scottish Government launched Energy Efficient Scotland: Area Based Schemes (EES:ABS) to further support private tenure households to install energy efficiency measures. This was designed to tackle the poor energy efficiency of private housing in areas of fuel poverty. It replaced the previous government schemes that had primarily focussed on low cost measures such as Cavity Wall Insulation (CWI) and Loft Insulation (LI) shifting the focus to external wall insulation and hard-to-treat cavities.

Energy Efficient Scotland: Area Based Scheme (EES:ABS) is an area-based scheme designed and delivered by councils with local delivery partners. They target fuel-poor areas and households to provide energy efficiency measures to a large number of homes while delivering emission savings and helping reduce fuel poverty.

Since 2013 the Scottish EES:ABS scheme has delivered energy efficiency measures to around 87,000 households across Scotland. Over the period 2013 to 2019/20 allocations to local authorities totalled £374 million. Since 2013 **£13.6 million** in funding has been secured for work in the Scottish Borders through £10.6 million of EES:ABS Scottish Government funding and £3 million of Energy Company Obligation (ECO).

Following the COSLA formula for Local Authority allocation the Scottish Borders Council allocation for 2020/21 is **£1.7 million**.

EES:ABS programmes require innovative project design in order to identify areas in need of household insulation improvement. This requires the Council to form strong partnerships and take advantage of available resources such as fuel poverty data, mapping, Home Analytics datasets and officers' local knowledge.

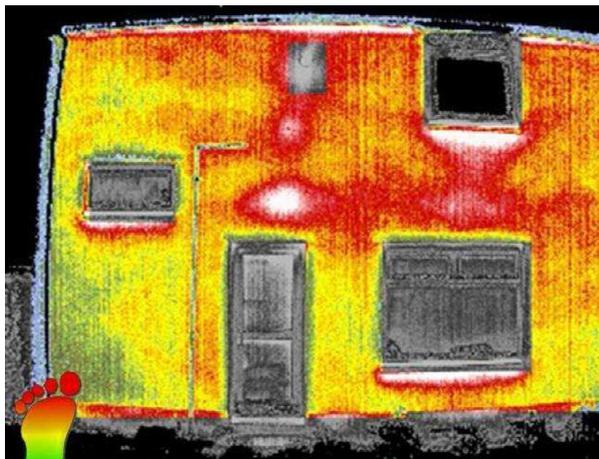
Delivery of EES:ABS involves local authority management and area selection but has a greater focus on more costly insulation measures such as external wall insulation (EWI), hard to treat cavities (HTTCs) and Internal Wall Insulation (IWI). In the last year Scottish Borders Council has introduced de-carbonisation and renewable technology in the form of Air Source Heat Pumps (ASHP) and Solar Photovoltaic and battery storage (PV Battery).

EES:ABS in the Borders initially focused on EWI and HTTCs as it was understood from available data that the majority of low cost measures (loft and CWI) would already have been installed. For EWI projects in mixed tenure blocks or areas this resulted in a number of social landlord upgrades that would previously have been difficult or impossible to complete. The nature of the region's housing stock also required an increased focus on IWI, particularly as identified homes suitable for EWI and HTTC had been completed.

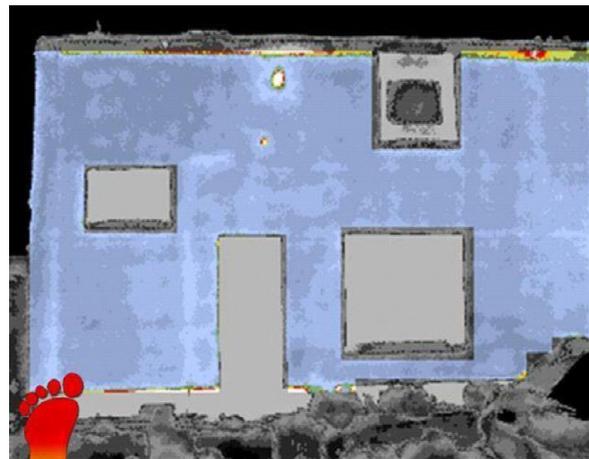
The images below are before and after photos of an external wall installation at Plora Terrace, Innerleithen.



External Wall Insulation can assist local residents in lowering their fuel bills. By reducing the amount of heat escaping through external walls, homes are quicker to heat and retain warmth for longer. In addition EWI can help to protect the fabric of a property and improve the cosmetic appearance of the building. The images below are use thermal imaging to show the difference in heat loss at a property before and after an EWI installation.



Thermal image pre External Wall Insulation



Thermal imaging post External Wall Insulation

Using available data Officers are able to identify which properties have received retrofit insulation. In addition the use of data on Energy Performance Certificate (EPC) bandings allows Officers at SBC to identify potential properties for decarbonised heating installations, particularly where properties are off the gas grid.

Specific property archetypes within the Scottish Borders and the rurality of the area present both challenges and opportunities. Given the nature of the housing stock within the Scottish Borders EES:ABS will generally continue with a fabric first approach, particularly Internal Wall Insulation (IWI), and will look to integrate this with innovative renewable technology in line with wider carbon net zero targets.

EES:ABS IMPACT ON FUEL POVERTY

It is generally accepted that there are four main contributory factors which cause fuel poverty:

1. The energy efficiency of a home and the heating system the property uses;
2. Fuel prices;
3. Household income;
4. Behavioural (how people live within their home and the amount they use their heating systems)

The energy efficiency schemes described have worked to address both the energy efficiency and heating systems of properties within the region. This has had a positive impact on fuel bills as a result of the reduced amount of energy used to achieve the same heating levels.

SBC work closely with agencies such as to ensure those accessing the programme are supported to address the other drivers of fuel poverty. Advice is offered on household behaviours relating to energy use in the home as well as sign posting for support on switching energy tariffs and income maximisation.

A monitoring and evaluation programme has recently been introduced to the SBC EES:ABS programme to report on outcomes and impact on households supported. The evaluations are carried out using a range of technical monitoring data (temperature, humidity, and energy consumption) as well as social evaluation questionnaires looking at areas which cannot be explored with data alone such as the impact on managing energy bills and comfort within the home.

All households who engage in the EES:ABS are referred to Home Energy Scotland and provided free impartial energy efficiency advice and advice on income maximisation. In addition advice and support is provided on the SBC website alongside contact information for Home Energy Scotland.



Table 3: Number of Home Energy Scotland interactions within the Scottish Borders

	2015/16	2016/17	2017/18	2018/19	2019/20
Inbound calls	1,223	1,175	934	1,245	1,130
Outbound calls	815	592	705	977	558
Events	330	299	1,379	945	516
Other (e.g. emails, letters, home visits)	1,343	2,521	2,106	2,244	2,973
EES:ABS	238	0	0	0	0
Total advice interactions	3,949	4,587	5,124	5,411	5,117

As mentioned previously, SBC's [AWHEES](#) is the local strategy developed for delivering improvements, it represents the strategic and holistic approach to increasing affordable warmth and delivering energy efficiency improvements within the Scottish Borders. The overall AWHEES vision is that "More people live in energy efficient and affordably warm homes". The priorities working towards fulfilling the vision are:

- Priority one - to collectively work with our partners to improve affordable warmth and energy efficiency in homes
- Priority two - to explore wider measures to better manage energy and increase warmth in the home
- Priority three - to ensure that the Strategy provides opportunities for all in the Scottish Borders

SUMMARY OF FUNDING AND SUPPORT DELIVERED THROUGH EES:ABS

EES:ABS in the Borders has resulted in a significant number of installations since 2013 and has successfully maximised the use of the Scottish Government funding. Since 2013 a total of £13.6 million in funding³ has been secured through £10.6 million of EES:ABS Scottish Government funding and £3 million of Energy Company Obligation (ECO).

The UK government introduced ECO to fund energy efficiency measures throughout the United Kingdom. The Energy Company Obligation requires the big six energy suppliers to help householders save on their energy bills and carbon emissions. Local authorities are also expected to maximise use of Energy Company Obligation (ECO) funding through EES:ABS which can work to provide additional funding and help the core EES:ABS funding to go further and support more households.

The bullet points below show the support that has been given to fuel poor households within the Scottish Borders through EES:ABS Schemes from April 2013 – December 2020 including expected savings both financial and environmental.

- **Households supported: over 3,500**
- **Measures installed to date: 4,353**
- **Annual Financial Savings (£): £521,540**
- **Lifetime Financial Savings (£): £20,811,240**
- **Annual CO2 Savings (Tonnes): 2,060**
- **Lifetime CO2 Savings (Tonnes): 16,585**

As an example Table 4 below shows the estimated fuel bill and CO2 savings for the 2019/20 programme based on the anticipated measures that could have been installed over the period. During the 2019/20 period the EES:ABS Air Source Heat Pump installation scheme was developed to support properties in off gas areas, however the impact of Covid on the supply chain has resulted in the ASHP installs being moved to the 2020/21 programme.

Table 4: Estimated fuel bills and CO2 savings for 2019/20 HEEPS:ABS based on anticipated measures

Measure	Tenure				CO ₂ Savings (tonnes)		Financial Savings (£)	
	Owner Occupied	Private rented	Social Landlord	Total	Annual	Lifetime	Annual	Lifetime
Internal Wall Insulation (solid wall)	56	0	0	56	43	321	10,080	362,880
External Wall Insulation (solid wall)	86	0	0	86	65	493	15,480	557,280
Hard to treat CWI (CWI solution)	126	0	0	126	57	434	12,600	529,200
Air Source Heat Pump (ASHP)	10	0	0	10	25	500	6,950	139,000

³ See appendix B for a detailed breakdown

PARTNERSHIPS

The success of the energy efficiency schemes has been assisted by strong partnerships between the Council and local organisations. This has included community groups spreading the word about available funding; housing associations delivering and coordinating programmes; and local charities and organisations managing delivery.

Changeworks & Home Energy Scotland (HES)

EES:ABS programmes responsibility for management was (and continues to be) sub-contracted to Changeworks. This has included working with the Housing Strategy Team at SBC on area selection analysis, bid document construction, procurement as well as quality control and delivery. The relationship and communication between the Council and Changeworks has been successful and has supported Council energy efficiency objectives being met through these programmes.

The South East Home Energy Scotland (HES) advice centre (managed by Changeworks) continues to provide signposting and support for householders referrals and works in tandem with EES:ABS to strategically targets areas of fuel poverty.

Registered Social Landlords

Since the commencement of the EES:ABS programmes there have been strong and effective relationships in place with local RSLs, including Berwickshire, Waverley, Eildon and Scottish Borders Housing Association. These partnerships have enabled the following key outcomes:

1. Complementing RSL capital programmes with EES:ABS funding for private properties has enabled private tenure upgrades in shared blocks.
2. Work with RSLs has supported us to meet our fuel poverty objectives
3. The creation of a bi-monthly forum made up of key local stakeholders including SBC and the RSLs.
4. The creation and ongoing delivery of the AWHEES as referenced above.
5. Successful funding bid to implement the Warm & Well Borders Scheme created via Borders Home Energy Forum to mutually support sector activity. With CAB, RSLs, NHS, Borders College, HES and Changeworks amongst others. This resulted in £551,000 funding for two years to address fuel poverty and income maximisation as well as ongoing support to create a lasting legacy. Signposting and cross referral have also been used to maximise support across the agencies involved.

SOCIAL IMPACT & COMMUNITY BENEFITS

Energy efficiency schemes have an important impact on households and local communities including:

- improvements in householder health and wellbeing;
- decreases in fuel bills and energy consumption;
- reduction in fuel poverty likelihood and prevalence;
- investment in the local community;
- reduction in local unemployment; and
- improvements to skill sets and experience.

The Council has commissioned a number of research projects and developed procedures for monitoring the social impacts of energy efficiency schemes. A copy of the draft EES:ABS Monitoring and Evaluation Report for 2017/18 can be made available on request.

One of the benefits of energy efficiency schemes is stimulation of the local economy through increased employment. This is often quite difficult to monitor and directly attribute to schemes but has resulted in trades being employed from the local community such as joiners, electricians, plumbers, and satellite TV engineers. Examples of direct local employment also include 2 FTE posts created at Change Works in Peebles from 2017-2020.

Community benefits are a feature of the tenders prepared to appoint EES:ABS contractors and during 2019-20 SBC have been engaging contractors on how this could be delivered by supporting Scottish Borders College and exploring how training, materials and work experience could be provided to their Students. Discussions and plans are still at an early stage and any successful outcome will be recorded in future reports.

Community Councils play a key role in raising awareness of EES:ABS. It is important that local councillors are aware of the schemes and can signpost constituents towards advice with confidence that the support mechanisms are robust and thorough. Similarly, working with local communities and identifying a trusted voice within a scheme can generate local awareness and engagement.

It has been estimated that for every £100 million spent on energy efficiency improvements in 2018 approximately 1,200 full-time equivalent jobs were supported across the Scottish economy.

In order to attract some of these jobs to the region, efforts have been made to improve the local supply chain, something which has been an ongoing issue due to the rural nature of much of the region and the need to bring workers in from other parts of Scotland. Engagement with Borders College has continued and representatives from the college attend Scottish Borders Home Energy Forum meetings along with Officers and other key stakeholders in an effort to build ties and share knowledge.

Case studies

Case studies can show improvements to quality of life and properties that local initiatives have given to people within the region through some of the schemes we have referenced in this report.

Examples are shared below and a further, more detailed, example from the project in Tweedbank is available at Appendix C (attached).



Ms Harvey, IWI 18/19 Melrose

“My home was always cold, and heating was my biggest expense. Now I can sit in my sitting room and be completely unaware of how cold it is outside. I know it’s going to make a big difference in the winter. I would so recommend having the work done. The difference it makes is fantastic. The contractors couldn’t be nicer or more professional. My house is warmer, I’m going to save money, and of course it helps the planet too.”



Ms Mansfield, IWI 17/18 Peebles

“My flat now heats up quickly, and it keeps the heat in when I switch the heating off. I pay less money and have more warmth: it’s great.

I no longer have to wrap myself in throws to keep warm, which has made such a difference to how I feel about and within myself. I would recommend anyone to have the insulation installed: there is no downside.”



Mr and Mrs Greaves, EWI 17/18 Lower Langlee

“The real difference...is how it looks. It’s greatly improved, so much nicer to look at. It was a horrible dull colour before, but they’ve brightened it up, and the windowsills they’ve put on have hidden the red tiles and it all looks so much better. I’m really pleased with how the house looks now. I’d say definitely go for it. Especially if you get the offer we did. It’d be silly not to take it.”



Mr Williams, HTTC 16/17

“I couldn’t fault the service. Everyone was very mannerly and very good at their jobs. From the first lad who came to the door, to the final inspection, everyone involved gave a great service. Having the work done has made an immense difference: we’re not using the gas as much, and the house is much warmer. Upstairs used to be very very cold, because the windows are about 30 years old, but now it’s very warm. We used to have the heating on until 9.30-10 o’clock at night, but now we switch it off by 6.30pm.”

The images below are before and after photographs of an EWI install which took place at Telford Road, clearly showing the improvement the insulation has made to the fabric and aesthetic of the building.



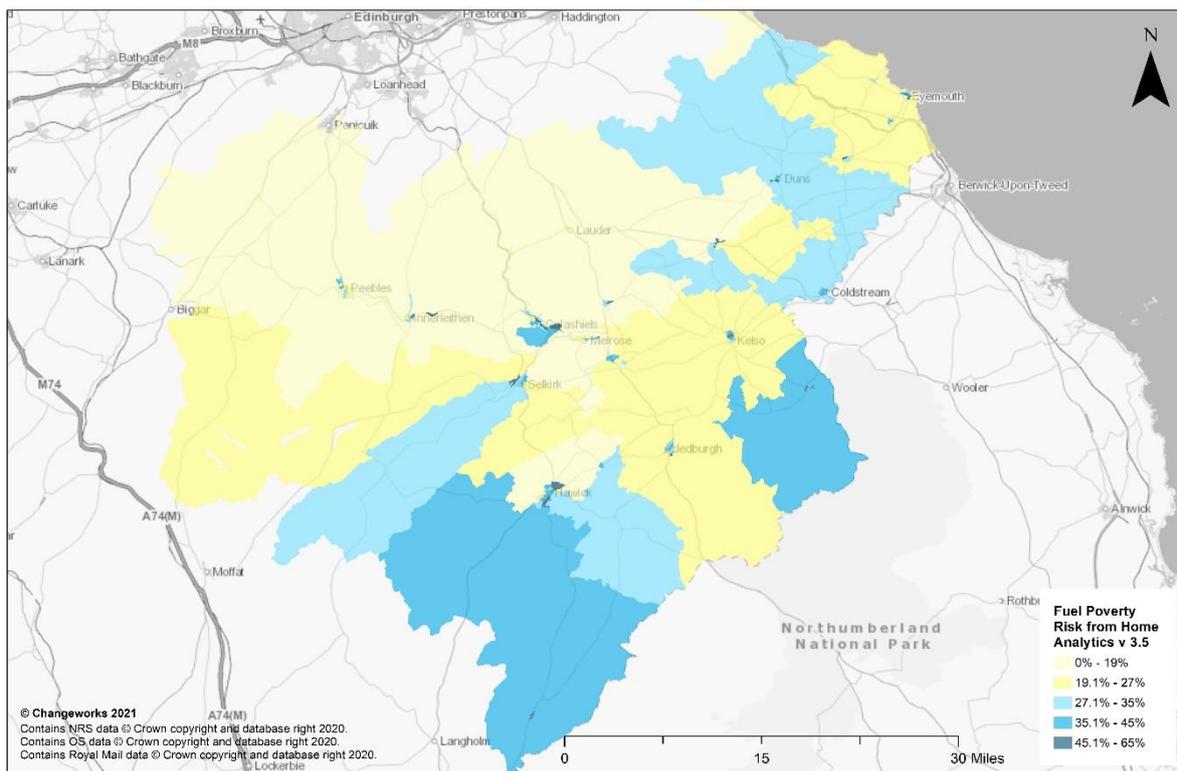
RESOURCES & DATA

Selection of EES:ABS areas is based on a number of Council, Changeworks and publically available datasets such as Home Analytics and the Scottish House Condition Survey.

In addition the use of GIS mapping provides Officers with an overview of fuel poor areas within the region. The Scottish Borders fuel poverty map shown below estimates fuel poverty density within the region. Fuel poverty levels are estimated based a number of indicators of fuel poverty including the following:

- Unemployed households;
- Single pensioner households;
- Permanently sick or disabled households;
- Properties with an energy performance certificate (EPC) rating E-G (poor energy efficiency);
- Properties with a central heating system other than gas or electricity (high fuel costs)
- Housing costs and the household composition

Fuel Poverty Risk(%) at Data Zone Level for Scottish Borders Council



Local knowledge and partnerships plays an important part in the future of EES:ABS. As household and area selection becomes more challenging due to the success of previous schemes, having in-depth knowledge of Scottish Borders housing stock will have greater importance. Therefore relationships with and knowledge sharing between RSLs, community groups and installers will be an important factor moving forwards. This is achieved through collaborative working such as the Borders Homer Energy Forum and working with the

appointed installers. SBC will continue to work with local RSLs and wider stakeholders to deliver commitments outlined in the AWHEES such as local community groups or trusted voices within communities who can provide local knowledge and support. In addition the use of GIS along with datasets such as those provided by Home Analytics allows detailed analysis of areas where schemes would be most beneficial.

An example of how this approach has led to successful delivery is the engagement with the Newcastleton & District Community Trust (NDCT). Previous attempts to promote schemes directly in the area had been met with limited uptake however including NDCT in the promotion resulted in a significant improvement. The approach included using NDCT logos on promotional materials, their members promoted the project on social media and distribution lists and supported the event. The trust of NDCT within the local community and the resultant trust in the project resulted in a response from 79 of the 349 households included. We usually expect around 2-4% response rates but received almost 23% in this instance with around 40 homes receiving insulation measures.

This approach is replicable and SBC, Changeworks, and Home Energy Scotland are currently engaging with a number of community based groups to develop similar approaches.

2020/21 AND BEYOND

For 2020/21 Scottish Borders Council were allocated a **£1.76 million** from the EES:ABS budget. Scottish Government are investing in the sector and it remains a vital part of the net zero carbon agenda. EES:ABS can be an integral part of the renewables and construction supply chain. Proof of market exists as there is significant Scottish Government commitment to Energy Efficient Scotland and similar schemes. In addition the activity across EES:ABS, W&W, AWHEES can act as an “anchor” for other activity and add to the collective step change in addressing both decarbonisation and sustainability.

These schemes have relied on a number of effective partnerships. During the delivery of EES: ABS, strong relationships with RSLs have been formed. This has been essential to the success of the schemes since EWI projects require coordination of private and social upgrades, particularly for mixed tenure blocks of flats.

Schemes have also resulted in a number of social and community benefits. Future EES: ABS programmes will require continued innovation during the planning stages in order to consistently reach fuel poor homes and maximise the use of EES:ABS funding. Resources such as the Changeworks fuel poverty map, Home Analytics and open source data sets will play an important role in meeting this requirement.

EES: ABS has significantly improved the energy efficiency of private housing stock in the Scottish Borders. EES:ABS programmes delivery will become more challenging as the easiest to treat properties and measures are installed and as such it is essential maximise the use of key partnerships and experience from previous schemes in identifying new areas.

The diminishing need for cavity and external wall insulation projects due to the success of programmes in recent years has resulted in a shift to greater numbers of internal wall insulation projects. Many households supported with insulation measures in previous years remain in fuel poverty with the cost of fuel bills remaining a driver. To address this challenge SBC and Changeworks developed a funding application under the EES:ABS 2020-21 ‘Special Project’s category which has now been approved by Scottish Government. The project will provide further support to these households by installing solar panels, battery storage and air source heat pumps.

COVID

In the financial year 2019-20 Scottish Borders Council were awarded £1.34m in EES:ABS funding. The Covid-19 pandemic has had a significant impact on the programme's delivery due to the restrictions put in place to help prevent the spread of the virus. No installations were able to take place between March and July 2020.

Following lockdown restrictions remained on works taking place inside people's homes, coupled with demand for tradesman soaring it was not possible to install as many measures as hoped. Despite the difficulties encountered, it was still possible to install 100 of the planned 278 energy efficiency measures supporting over 75 households within the region.

COVID safety precautions

SBC and the appointed EES:ABS contractors will continue to follow Scottish Government guidelines and advice and adhere to construction sector best practice to ensure that employees and householders are always protected and that their safety is paramount.

Currently in the latest lockdown, restrictions in place have limited EES:ABS activity to external works only. As such only EWI and HTTC can progress and all other work has been paused.

Glossary

Acronym

Full Name

CERT	Carbon emissions reduction target
CWI	Cavity wall insulation
DECC	Department of Energy and Climate Change
ECO	Energy Company Obligation
EST	Energy Saving Trust
EWI	External wall insulation
HA	Housing association
HEEPS:ABS	Home Energy Efficiency Programmes for Scotland: Area Based Schemes
HIS	Home Insulation Scheme
HTTCs	Hard to treat cavities
IWI	Internal wall insulation
RSL	Registered social landlord
SIMD	Scottish Index of Multiple Deprivation
UHS	Universal Home Insulation Scheme

Appendix A:

DEFINITION OF FUEL POVERTY

A household is in fuel poverty if:

- (a) the fuel costs necessary for the home in which members of the household live to meet the conditions set out in subsection (2) are more than 10% of the household's adjusted net income, and
- (b) after deducting such fuel costs, benefits received for a care need or disability (if any) and the household's childcare costs (if any), the household's remaining adjusted net income is insufficient to maintain an acceptable standard of living for members of the household.

DEFINITION OF EXTREME FUEL POVERTY

A household is in extreme fuel poverty if:

- (a) the fuel costs necessary for the home in which members of the household live to meet the conditions set out in section 3(2) are more than 20% of the household's adjusted net income, and
- (b) after deducting such fuel costs, benefits received for a care need or disability (if any) and the household's childcare costs (if any), the household's remaining adjusted net income is insufficient to maintain an acceptable standard of living for members of the household

Appendix B: EES:ABS funding, measure and savings

Description	2013/ 14	2014/ 15	2015/ 16	2016/ 17	2017/ 18	2018/ 19	201 9/20	2020/ 21	Total
EES:ABS Funding	£1,620,000	£1,130,000	£1,870,000	£1,100,000	£1,230,000	£1,340,000	£522,000	£1,770,000	£10,582,000
ECO Funding	£1,280,000	£342,000	£220,000	£614,000	£500,000	£75,000	£0.00	TBC	£3,031,000
Total Funding	£2,900,000	£1,472,000	£2,090,000	£1,714,000	£1,730,000	£1,415,000	£522,000	£1,770,000	£13,613,000
External Wall Insulation (Solid Wall)	315	275	238	86	37	88	-	30	1,069
Cavity wall insulation	141	50	-	104	-	46	5	-	346
Hard to treat CWI (CWI Solution)	32	-	73	856	655	177	40	88	1,921
Internal Wall Insulation (Solid Wall)	-	-	-	-	35	39	26	50	150
Loft Insulation (Virgin)	291	3	-	36	-	1	3	-	334
Lost insulation (Top-up)	336	-	-	148	-	40	8	-	532
Under Floor Insulation	80	-	-	26	-	9	18	-	133
Glazing	36	-	-	-	-	-	-	-	36
Air Source Heat Pump	-	-	-	-	-	-	-	39	39
PV & Battery	-	-	-	-	-	-	-	39	39
Total Measures	1,231	328	311	1,256	727	400	100	246	4,599
Annual Financial Savings (£)	£120,950	£50,030	£46,840	£149,600	£90,120	£52,650	£11,350	£23,360	£544,900
Lifetime Financial Savings (£)	£4,777,500	£1,837,260	£1,738,800	£6,200,640	£3,715,920	£2,089,380	£451,740	£904,320	£21,715,560
Annual CO2 Savings (Tonnes)	512	205	190	554	361	194	44	94	2,155
Lifetime CO2 Savings (Tonnes)	4,102	1,533	1,435	4,740	2,760	1,655	360	715	17,300

APPENDIX C: Case Studies from Tweedbank external wall insulation project 2016/17

Scottish Borders Council ran an external wall insulation project in Tweedbank, funded by the Scottish Government and project managed jointly with Changeworks. Home Energy Scotland provided free impartial energy efficiency advice to householders. The project was part of the Home Energy Efficiency Programmes for Scotland: Area Based Schemes (HEEPS: ABS), part of the Scottish Government initiative to tackle fuel poverty (now known as EES:ABS).

The total investment in energy efficiency improvements for this project was £1.5m. External wall insulation was offered to 234 properties, 208 privately owned homes and 26 Housing Association owned homes. To date, 203 properties have been insulated with a further 10 in progress. Everwarm is the contractor selected to carry out the installation of the insulation. Gillian Allinson had external wall insulation installed on her end terrace home towards the end of 2016 as part of the external wall insulation project. It would usually cost in the region of £9000 to install external wall insulation on these types of properties but thanks to Scottish Government funding, householders could have the insulation installed for £1000. Gillian received a letter from Home Energy Scotland and Scottish Borders Council informing her that they were running a project in her area and that there was funding available to subsidise the work, she was delighted and decided to sign up.

“I really feel the cold, so I liked the thought of having a warmer house, and I thought having the external wall insulation would make the house look better too. But it’s really expensive to have it installed, so the deciding factor for me was that it was heavily subsidised. I couldn’t have had it done otherwise. In the end I paid £1000, which has been worth it already.”

The letter told her who to contact, and what would be involved. Once she’d signed up to the project, the contractors employed to undertake the work got in touch, and someone from the company came out to do a survey. They made sure that the property was suitable for external wall insulation, and explained what would happen and arranged an installation date.

Once the installation started, the contractor worked on three or four houses in the street at the same time. They put the scaffolding up and quickly got to work.



Gillian Allinson



Gillian's home after the insulation was installed

“It was really impressive how quickly it all happened. We'd drive away in the morning, and come back to a completely different looking house in the evening.”

Gillian had already had loft insulation fitted, but she's really noticed the difference in how warm her home is now that she's had the external wall insulation installed.

“Having the external wall insulation has made such a difference to our home. The heating's on a lot less, which is a miracle for me. I really feel the cold, and my family joke that I'll have two jumpers on while everyone else is in shorts and t-shirts! Well now the house warms up so much more quickly, and best of all, it stays warm, especially upstairs, even when the heating's off. Everyone thinks it's nice and cosy now. The house looks a lot better too. And because so many houses have had it done, it's really brightened up the neighbourhood.” Gillian is very happy with her decision to take advantage of the Scottish Borders Council's subsidy to install external wall insulation in her home.

“All in all I would completely recommend people to get it done. The subsidy meant I could afford to have it installed, and now my house is warmer, even though my heating's on less.” The Energy Performance Certificate (EPC) completed prior to the installation of the external wall insulation rated the energy efficiency of Gillian's home as 49 (E) and the environmental impact (CO2) rating as 45 (E). The EPC completed following installation rated an improvement to the energy efficiency with a new rating of 67 (D) and environmental impact (CO2) rating of 66 (D).

Mike lives in a mid-terrace property in Tweedbank and decided to have the work done as he liked the idea of having a warmer home whilst spending less money to heat it. The project had initially started on one street in his estate but the project was extended. Mike spotted an advert in the local newspaper and he phoned the number for Home Energy Scotland to sign up to have the insulation installed.

The scaffolding was up around Mike's house for around six to eight weeks, the contractor would complete each stage of the process across all the houses in the immediate vicinity, before going back around to complete the next stage. Mike has also been impressed by the impact that the work has had on his house. As well as the visual benefits, his gas usage is down, and his house, which he previously described as cold, is now nice and warm.

"I'd say our gas usage is 10-15% below what it would normally be. Our daily charge is about 26p per day, which is very economical. Plus, our house used to be cold, but it's not anymore, which is great. Our primary reason for getting the work done was because of the visual impact and we've not been disappointed. The whole estate has been given a new lease of life, and the houses look as if they've just been built. And apart from anything else, having the work done has improved the resale value of our home above ones that haven't had the work done. It must make it more attractive to buy, both from a visual perspective and the heating benefits."

"I would encourage anyone thinking of installing insulation to do it. If they could see what I can see now they wouldn't hesitate. The house looks brand new, plus I've been able to turn my thermostat down by 2-3 degrees and my house is still lovely and warm."

I learned so much about how to save energy and cut costs just by going through the process. I encouraged my neighbour to have it done, and she's really pleased I did. I told her what I'd tell anyone in her position: you'll save money, your house will be warmer, and it'll look better. If you're still not sure, try and see somewhere that the work's been done, and if you know someone who's had it done ask them if their house looks better and feels warmer. I bet they'll tell you 'Yes'. We spent money to save money, and it's been really worthwhile."

The energy efficiency rating of Mike's home prior to the installation of the insulation was 62 (D) with an environmental impact (CO2 rating) of 56 (D), another EPC was completed following the installation and the energy efficiency rating improved to 70 (C) and CO2 rating of 67 (D).