

Appendix 1: East Sussex County Council Draft Carbon offset Framework (July 2023)

This carbon offset framework:

- Describes what carbon offsetting is.
- Explains why the County Council needs a carbon offset framework.
- Sets out the County Council's offsetting Framework.

What is Carbon offsetting?

The carbon mitigation hierarchy, illustrated in figure 1, sets out a structured approach for prioritising actions that reduce carbon emissions. Offsetting, which is generally considered the least favoured action, is a way for an organisation or individual to offset their unavoidable carbon emissions by paying others to reduce their carbon emissions or deliver projects that absorb carbon emissions. Greenhouse gases, such as carbon dioxide (CO₂) mix in the atmosphere, which means that emissions anywhere in the world have the same effect and, therefore, carbon offset projects have the same benefit wherever they occur. The main purpose of carbon offsetting is to contribute to lowering global carbon emissions overall as quickly as possible.

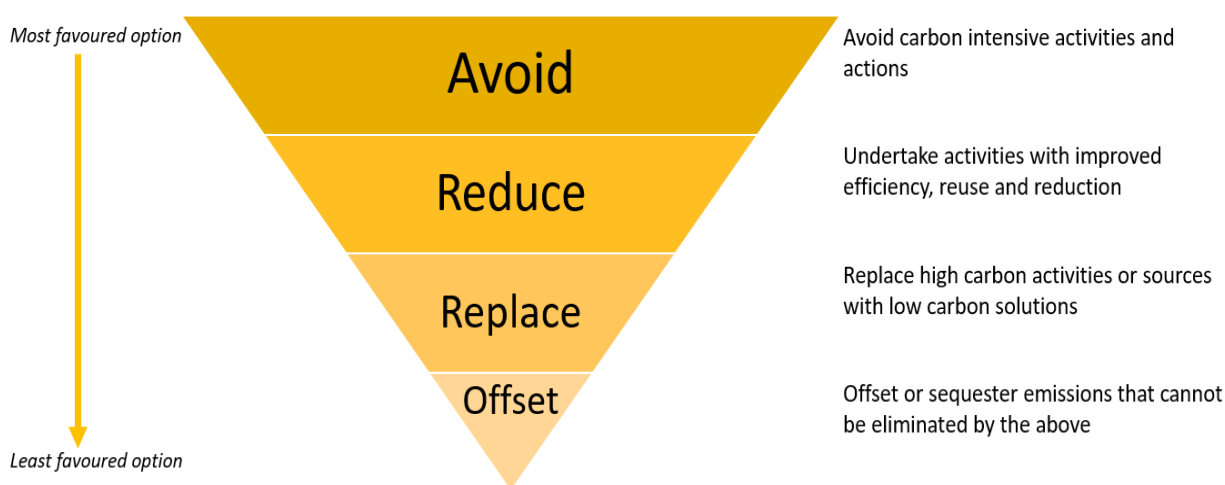


Figure 1. The carbon mitigation hierarchy.

Figure 1 shows an inverted pyramid, with the best option for addressing climate change, which is to avoid carbon emissions in the first place, being at the top of the pyramid. This is followed further down the pyramid by reducing emissions, for example by improving energy efficiency which, in turn, is followed by replacing high carbon activities with low carbon solutions, and at the bottom of the pyramid is offsetting carbon emissions that cannot be eliminated by steps further up the pyramid.

There are broadly three types of carbon offsetting:

- 1) Emissions avoidance – these projects avoid carbon emissions that would otherwise be released into the atmosphere, for example investment in renewable energy or the distribution of energy efficient cooking stoves in developing countries.
- 2) Emissions removal – these projects actively remove (sequester) carbon, for example through the planting of trees. A key consideration is how long the removal lasts for (eg. with tree planting this will be decades).
- 3) Emissions capture – Similar to emissions removal, although not nature-based, for example carbon removal technologies with storage that could be for millennia. These technologies are mostly still in development.

There are two main types of carbon offset markets: a mandatory (or compliance) market, such as the UK's Emissions Trading Scheme, and voluntary programmes. The compliance market is where organisations purchase carbon credits in order to comply with legally binding emissions reduction obligations. This market aims to drive down emissions over time from energy intensive sectors. Voluntary Carbon Markets operate separately to mandatory markets and enable companies and individuals to purchase carbon offsets on a voluntary basis with no intended use for formal compliance purposes. Both markets are designed to facilitate the development and exchange of carbon offsets between buyers and sellers. Voluntary markets are international, in that buyers can purchase carbon offsets delivered in other countries. Currently, there is no government oversight of the international or national voluntary carbon markets. This creates potential financial and reputational risks, for example if offsets are purchased that do not deliver what they claim. The County Council considers that the government has an important part to play in ensuring that the voluntary carbon offset market functions well, by ensuring market rules are in place and are underpinned by robust science.

The need for a County Council Carbon Offset Framework

All credible international, national and organisational scenarios to get to net zero include carbon offsetting. Used responsibly, offsets are an essential part of the solution to get to net zero as quickly as possible.

The main reason why the County Council needs to include carbon offsets as one of its many actions to get to net zero is because of the time and the cost to decarbonise heat in its buildings: modelling work commissioned in 2022 by the County Council to determine how it could meet its target of cutting its scope 1 and 2 carbon emissions by half every 5 years indicated that, if no offsetting was considered, it would need approximately £200m up to 2050 to pay for capital intensive interventions. In addition, most of this £200m would need to be spent early on, as illustrated in figure 2, in order to keep within a science-based carbon budget. Over 90% of this cost would be needed to decarbonise heat in buildings, notably to replace oil and gas boilers with air source heat pumps. Yet it will take a number of years to gradually replace boilers with heat pumps across the Council's buildings, because it does not make either financial or carbon sense to remove oil or gas boilers that have not reached the end of their operational life. Consequently, carbon emissions from heating are hard to abate by virtue of both the timescale over which boilers can sensibly be replaced and by virtue of the cost to do so.

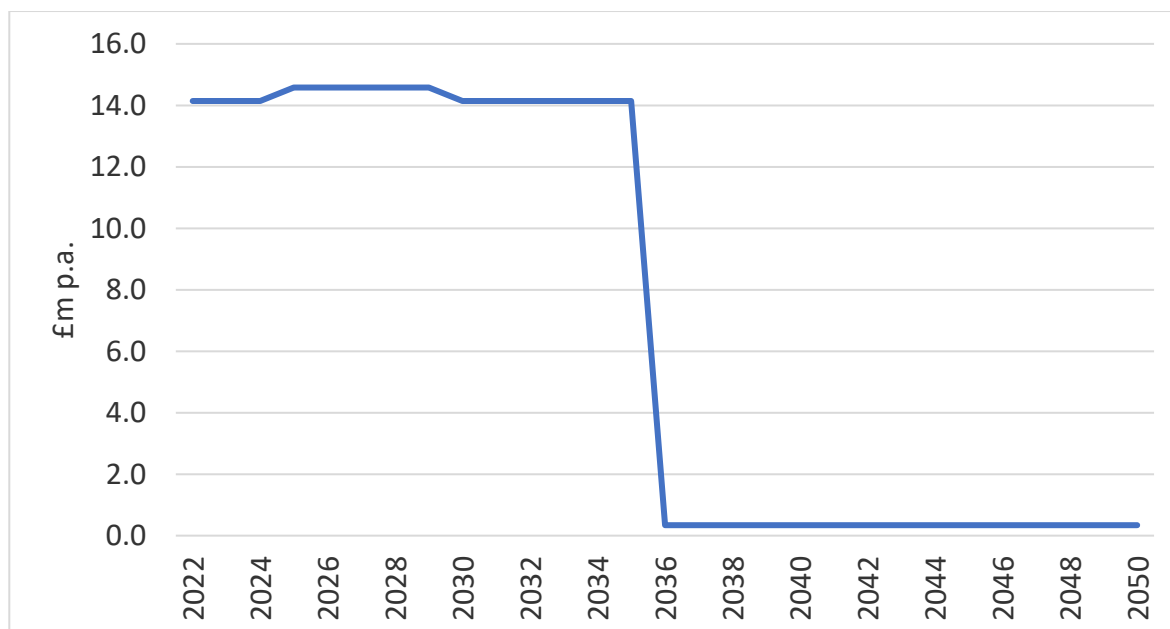


Figure 2. The annual spend required to remain within the Council's carbon budget (Currie & Brown, 2022).

Figure 2 shows how much would need to be spent per year between 2022 and 2050 to remain within the Council's carbon budget. The spend would need to be about £14m per year between 2022 and 2036 and then reduce to about £300,000 per year from 2036 to 2050.

Using carbon offsets would enable the Council to use all means at its disposal, concurrently, to try to keep within its carbon budget. The Framework set out below provides a means to guide how the County Council will engage with the voluntary carbon offset market, as it develops and evolves, to enable offsetting to contribute to bridging the gap between current resources and staying on track to get to net zero, and to deliver co-benefits where possible. The co-benefits of carbon offset schemes depend on the type of offset scheme. For example, investing in planting the right type of trees in suitable locations can increase biodiversity by increasing habitats, it can increase timber for construction and fuel, improve local air quality by removing some pollutants, provide shade and increase property values.

The County Council's Framework draws on the recommendations from leading organisations that have set out good practice principles to follow when offsetting carbon emissions, including:

- 1) The Oxford Offsetting Principles: [The Oxford Offsetting Principles | Smith School of Enterprise and the Environment](#)
- 2) The Integrity Council for the Voluntary Carbon Market, which is an independent governance body for the global voluntary carbon market that has developed a draft set of "Core Carbon Principles": [The Core Carbon Principles - ICVCM](#).
- 3) The Voluntary Carbon Markets Integrity Initiative, which has set out a Provisional Claims Code of Practice for offsets: [VCMI Claims Code of Practice – VCMI \(vcmintegrity.org\)](#).
- 4) The UK's Committee on Climate Change, which provides independent advice to government on how to get to net zero by 2050, which defines high quality carbon offsets as those that are additional, accurately estimated, not claimed by another entity, measurable and verifiable, and have long lasting benefits: [Voluntary Carbon Markets and Offsetting - Climate Change Committee \(theccc.org.uk\)](#)
- 5) The British Standards Institute has developed Publicly Available Specification (PAS) 2060, which is a standard that details how an organisation can demonstrate that it is carbon neutral: [PAS 2060 - Carbon Neutrality Standard and Certification | BSI \(bsigroup.com\)](#).
- 6) The International Standards Organisation's Net Zero Guidelines (IWA 42:2022), which serve a similar purpose to PAS 2060: [IWA 42:2022 - Net zero guidelines \(iso.org\)](#)

The County Council's Carbon Offset Framework

The scope of this Framework covers the County Council's corporate carbon emissions. The aim of the framework is to support the County Council to get to net zero from its own activities as soon as possible, and by 2050 at the latest, following a science-based carbon reduction pathway. To achieve this, the County Council will:

- 1) Follow the carbon hierarchy in a pragmatic way, prioritising measures higher up the hierarchy but aiming to cut carbon rapidly and at an acceptable cost. Used responsibly, offsets are an additional part of the solution to get to net zero as quickly as possible.
- 2) Ensure that carbon offsets contribute no more than 10% of the annual carbon reduction target, as the priority is to achieve a reduction in corporate carbon emissions at pace and at scale. Offsetting will help bridge the gap between what we are able to deliver within existing resources and the Council's ambitious, science-based carbon reduction target.

3) Restrict the County Council’s approach to the use of carbon offsets to the following options, to ensure that its investment is in high integrity offsets, delivers local co-benefits where possible and is in addition to any statutory obligations, such as being the Responsible Authority for developing a Local Nature Recovery Strategy. These options are not in order of priority and may be taken forward concurrently to maximise benefits:

- a. Invest in measures on the County Council’s own land, where available, that meet the requirements set out in table 1 for high integrity offset, to ensure that the investment in carbon offsetting is retained within its own value chain (termed ‘insetting’).
- b. Invest in measures on third party land within East Sussex that meet the requirements set out in table 1 for high integrity offsets, to ensure that the investment and benefits are retained within the county.
- c. Work with partners to explore opportunities for carbon offsetting within East Sussex that meet the requirements set out in table 1 for high integrity offsets.

The Council recognises that it’s possible that none of these options may deliver carbon offsets now or in the short term. In recognition of this, it will monitor developments in the market to explore new options, as they come forward, to see which would meet this Framework and could be taken forward.

4) Regularly review this carbon offset framework as offsetting markets, technologies and good practice develop.

Term	Definition
Not overestimated	The reported emissions reduction or removal does not exceed what the carbon project has claimed. There is greater certainty with projects that have a robust scientific evidence base (e.g. woodland creation, peatland restoration).
Not claimed by another entity	The credit must be for buyer’s exclusive use and not double counted.
Additional	The project or activity would not have happened without the voluntary carbon market. This has three elements: judicial (the project would not have taken place as a legal /regulatory requirement); financial (the project would not be financially viable in the absence of the revenue generated through sale of carbon credits); common place (the activity funded by offsetting in not already common practice in an area).
Long lived or permanent	The project must ensure carbon removed by the project remains out of the atmosphere for a long time (e.g., for woodland creation project this could be for approximately 100 years)
Measurable and verifiable	The emissions reduction can be accurately quantified using established methodologies. These must be checked by independent third-party verifiers.
Transparent	The emissions reduction should be supported by publicly available information on a registry that sets out the projects, the quantification methodology used, independent validation and verification procedures, proof of ownership and date of retirement of credits.
Avoids leakage	It does not lead to an increase in carbon elsewhere.
Avoid environmental or social harm	Measures are in place to ensure no harm to communities or ecosystem services. Where possible, projects support wider social and environmental [co-]benefits.

Table 2. Requirements that will be met by the County Council when purchasing carbon offsets.